



## **ABOUT IAMAI**

The Internet and Mobile Association of India (IAMAI) is a young and vibrant association with ambitions of representing the entire gamut of digital businesses in India. It was established in 2004 by the leading online publishers, but in the last 16 years has come to effectively address the challenges facing the digital and online industry including online publishing, mobile advertising, online advertising, ecommerce, mobile content and services, mobile & digital payments, and emerging sectors such as fintech, edutech and health-tech, among others.

Sixteen years after its establishment, the association is still the only professional industry body representing the digital and mobile content industry in India. The association is registered under the Societies Act and is a recognized charity in Maharashtra. With a membership of over 300 Indian and MNC companies, and with offices in Delhi, Mumbai, and Bengaluru, the association is well placed to work towards charting a growth path for the digital industry in India.

## **ABOUT IKIGAI LAW**

Ikigai Law is a technology and innovation focused law and policy firm. The firm stands at the forefront of regulatory and commercial developments in the technology sector with a dedicated technology policy practice. It engages with crucial issues such as data protection and privacy, fin-tech, online content regulation, platform governance, digital gaming, digital competition, cloud computing, net neutrality, health-tech, blockchain and unmanned aviation (drones), among others.

In the recent past, the firm was ranked as a 'band 1' and 'band 2' firm for its data protection and technology practice by Legal 500 (2021); the TMT practice has been ranked (2020) and recognized (2019) by Chambers and Partners; the Indian Business Law Journal recently recognized it as one of India's top law firms for data compliance and cybersecurity; Thomson Reuters' Asian Legal Business adjudged it as the Boutique Law Firm of the Year 2020 and 2019; Idex Legal adjudged it as Mid-size Law Firm of the Year 2019 and Legal 500 rated it a leading law firm, calling them "knowledgeable", "influential" and "effective".

## **ACKNOWLEDGEMENT**

Ikigai Law would like to thank all the interviewees who helped to give shape to this report with their valuable insights.

IAMAI would also like to thank their members Dream 11, MPL, PokerStars and Gambit Sports for their insights and support to undertake this study.

# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>1</b>
--------------------------	----------

---

## **CHAPTER 1**

<b>OVERVIEW OF THE DIGITAL GAMES AND SPORTS INDUSTRY</b>	<b>4</b>
--	----------

---

Types of digital games and sports in India	5
--	---

---

Key industry trends	9
---------------------	---

---

Economic growth through digital games and sports	15
--	----

---

## **CHAPTER 2**

<b>SOCIETAL PERCEPTION OF DIGITAL GAMES AND SPORTS IN INDIA</b>	<b>19</b>
---	-----------

---

Digital games and mental health	19
---------------------------------	----

---

The benefits of gamification	22
------------------------------	----

---

Diversity in digital games and sports	24
---------------------------------------	----

---

Digital gaming as a profession	26
--------------------------------	----

---

## **CHAPTER 3**

<b>LEGAL CHALLENGES IN THE DIGITAL GAMES AND SPORTS INDUSTRY</b>	<b>30</b>
--	-----------

---

Skill versus chance	30
---------------------	----

---

Tax issues	35
------------	----

---

Intellectual property rights	36
------------------------------	----

---

Content regulation	40
--------------------	----

---

Add-on content	43
----------------	----

---

## **CHAPTER 4**

### **POTENTIAL AREAS OF POLICY MAKING FOR DIGITAL GAMES AND SPORTS 46**

---

Skill development and employability in the gaming industry 46

---

Promote fantasy sports to increase sports engagement 49

---

Recognize esports as a professional sport in India 51

---

Promote gamification in key sectors 55

---

### **IMPLICATIONS OF UPCOMING DATA GOVERNANCE LAWS FOR THE INDIAN GAMING INDUSTRY 58**

---

### **COVID-19 AND DIGITAL GAMES 61**

---

### **CONCLUSION 62**

---

### **ANNEXURE 63**

---

### **END NOTES 66**

---

## EXECUTIVE SUMMARY

---

### INTRODUCTION TO THE REPORT

From their humble beginning as pixelated games in the 1950s, digital games and sports have evolved into a USD 150 billion global industry. The Indian market is nearing the USD 1 billion mark. Smartphones brought heavy and complex games closer to audiences and have made them more immersive. At the same time, digital payments and other technological innovations propelled the industry's growth. Consequently, the industry has garnered the attention of policy makers, world leaders, economists, industrialists, businesses, and educationalists. Digital games are also increasingly being viewed as more than recreation. Gamification, for instance, has become a growth driver in many key sectors like education, health, business administration, and governance. The Covid-19 pandemic further highlighted the social value of digital games, and how they help forge human connections in the time of 'social isolation'. The industry has created employment and attracted foreign investment, making it a crucial part of the national economic revival.

The industry presents a promising future and can be a key pillar of India's digital ecosystem. This Report puts in perspective the value of digital games and sports for our society and economy. In this Report, we describe the different types of digital games and sports and present key trends in the industry. We counter some of the negative societal perceptions around gaming. We also intend for this to be a starting point for legal and policy changes that could help unlock the industry's true potential.

#### Who should read this Report?

- **Government:** For the key growth drivers of the industry and its potential role in economic revival.
- **Investors:** For trends, market potential and the regulatory landscape.
- **Media:** For numbers and research that help address the negative perceptions around gaming.
- **Law makers:** For a consolidated set of legal/policy issues and suggestions to address them.
- **Courts and regulators:** For a body of research presenting the industry's stance on key legal issues.

### CATEGORIES OF DIGITAL GAMES AND SPORTS

Digital games and sports are played for several reasons, ranging from recreation and learning, to competitive play, earning money, and better sports engagement. For your convenience, we have split the digital games and sports industry into 4 (four) categories: casual games, other e-competitions, esports, and fantasy sports.

We use the umbrella term 'digital games and sports,' or simply 'digital games,' to encapsulate the wide range of games and sports. Casual games and other e-competitions fit the mould of a 'digital game'. And esports are closer to 'digital sports'. Fantasy sports, on the other hand, are a unique category in itself (associated closely with sports). This Report unpacks each of these segments.

### GROWTH DRIVERS FOR THE INDIAN INDUSTRY

#### Emergence of mobile-first games

Availability of cheap smartphones and affordable data has revolutionised mobile gaming in India, forecasted to grow to USD 1.1 billion by 2020. More than 43% of mobile users engage with at least one digital game. India has more than 500 million smartphone users today with forecasts to reach 859 million by 2021. Among these, mobile gamers are projected to reach 368 million by 2022.

## **Growth of digital games as spectator sports**

Esports and other e-competitions command a loyal fanbase and are emerging as spectator sports. Globally, esports viewership is expected to compete with and possibly surpass traditional sporting events by 2021. Gaming tournaments have also emerged with televised competitions like UCypher and stadium events like the 2019 PUBG Mobile Club Open in Mumbai that was attended by over 5000 people.

## **Increased marketing spends by gaming companies**

Companies rely on various marketing modes to attract users and promote their brands. Dream11 spent INR 222 crore to bag the title sponsorship rights for the 13th Indian Premier League. And Mobile Premier League became the official kit sponsor for Indian men's cricket team. Brands also on-board celebrities for endorsement. MS Dhoni, for instance, is the brand ambassador for Dream11 and PokerStars, and Sourav Ganguly promotes fantasy sports platform My11Circle.

## **Use of digital games as marketing platforms**

Games based on movie adaptations such as *Dboom 3: the game*, *Fan: the game*, and *The Sultan* help create interest in the underlying movie and its songs. Digital games are also used to create awareness and social impact like the Chhota Bheem Swachh Bharat Run inspired from the Swachh Bharat Abhiyan.

## **Emergence of local gaming content**

India's push for 'Vocal for Local' and Prime Minister Narendra Modi's emphasis on games based on Indian culture has pushed local games and regional gaming content to rise. The recent 'AatmaNirbhar Bharat App Innovation Challenge' saw games like *Hitwicket Superstars*, *World Cricket Championship 2*, and *Scarfall: The Royale Combat* emerge as winners. Digital version of traditional games like Carrom Clash and Ludo King are also quite popular with monthly average users crossing the millions.

## **ECONOMIC GROWTH THROUGH DIGITAL GAMES AND SPORTS**

The Indian gaming market stands at USD 930 million today. The industry is predicted to soon grow bigger than the music, movie, and television industries put together. Investments in the sector have grown rapidly. Indian start-ups have boomed while local companies have also collaborated with global gaming brands. The industry has created significant employment opportunities. It has also given rise to allied professions.

## **Rapid investments in the Indian gaming industry**

India's gaming industry has attracted about USD 575 million between 2014 and 2020 (excluding USD 225 million raised by Dream11 and USD 90 million raised by Mobile Premier League recently). Marquee investors such as Sequoia and Softbank are key investors in Indian market, whereas Indian investors are investing in gaming markets outside India. The government has also emerged as an investor in the sector, with the Karnataka government setting up an INR 20 crore fund for animation, visual effects, and gaming.

## **The rise of Indian game developers**

India has 275 game development companies with over 15000 game developers. Around 5468 Indian game publishers are present on the Google Play Store offering 19518 games across categories. India is also a global talent hub for the gaming industry. International studios like Electronic Arts, Ubisoft, Nvidia, and Zynga already have centres in India. With 'AatmaNirbhar Bharat' and 'Make in India', promoting Indian game developers will create huge returns and help India position itself as a market leader in gaming.

## **Job opportunities**

Digital games and sports industry have emerged as a leading employer. There are close to 23,000 gaming-based job openings in India, with annual salary packages ranging from INR 3 lakhs to over INR 40 lakhs. Jobs for game design, technology, marketing, sales, data analysis, among others, have emerged. The industry has also created ancillary jobs for live streamers, coaches, mentors, sport therapists, and marketing agents.

## Revenue generation and tax collection

Huge investments and rapid revenue generation in the industry can create sizable tax income for the exchequer, a rising trend in foreign countries. Collaboration between Indian game developers and foreign gaming companies also brings foreign exchange into the country.

### NEED FOR AN ENABLING LEGAL AND POLICY FRAMEWORK

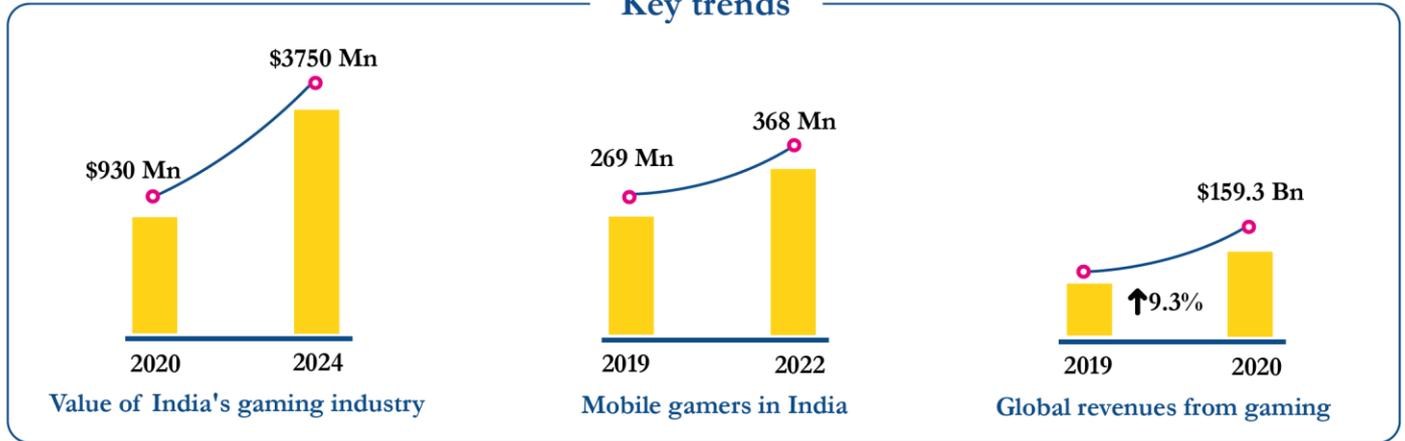
Every industry needs a robust legal framework to grow and digital gaming is no different. India's gaming sector faces uncertain laws that are inconducive to innovation. While changes in state gambling laws create uncertainty, the inability of the law to address issues around tax, intellectual property, and content pushes companies to rehash business models. At the same time, unlike its global counterparts, India is yet to focus on the skilfulness of its labour that can fit into the gaming industry. We are also behind in leveraging the potential of gamification to boost key economic sectors. While fantasy sports can open a new dimension to sports engagement, recognition and promotion of esports as a profession will help to create global esports athletes from India.

In this Report, we identify the opportunities that this industry presents and the key legal issues that impede its growth. We offer recommendations to help address legal risks and suggest policy changes that could boost its growth and leverage its potential as a key pillar of India's digital ecosystem

# CHAPTER 1

## OVERVIEW OF THE DIGITAL GAMES AND SPORTS INDUSTRY

### Key trends



#### Casual games

Simple, easy-to-understand gameplay. Do not require uninterrupted focus. Typically, free to download and play.

14.87%

Indian gaming market

#### Other e-competitions

Games played competitively among users for money. Include card games and other skill-based games.



35-40%

Market growth

#### Esports

Category of sports played electronically. Played between individuals or teams. Test a user's speed, reaction time, and other skills.

17 Mn

Esports users in India

#### Fantasy sports

Not games, but digital sports engagement platforms. Users build virtual teams that compete over simulations of real-life sports.

90 Mn

Fantasy sports users in India in 2019

### Key trends that drive industry's growth



Emergence of mobile-first games



Technology enables immersive and accessible gaming



AI and blockchain ensure secure gameplay and fair competition



Digital games evolving as spectator sport



Digital games used as marketing platforms



Increased marketing spends by gaming companies



Emergence of local gaming content

### Contribution to the economy

The gaming industry is predicted to grow larger than the music, movie, and television industries put together.

47%

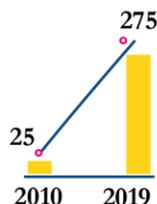
Projected Compounded Annual Growth Rate (CAGR) by 2022



Significant foreign investment from Sequoia, Alibaba, Softbank, and Tencent

15,000

Game developers in India



Total gaming companies in India

₹ 3-40 lakh

Average annual salary in the gaming industry



Sizeable tax income for the exchequer

## CHAPTER 1

### OVERVIEW OF THE DIGITAL GAMES AND SPORTS INDUSTRY

From Prime Minister Narendra Modi referring to digital games at a public event to Mukesh Ambani calling it the ‘next big thing’, the gaming industry has caught everyone’s interest. The sheer range of games on offer is both an indicator and an outcome of growth. From casual puzzles to massive multiplayer games to educational games, there is a game for everyone. We use the umbrella term ‘digital games and sports,’ or simply ‘digital games,’ to encapsulate the wide range of games and sports. While casual games and other e-competitions fit the mould of a ‘digital game’, esports are closer to ‘digital sports’, whereas fantasy sports is a unique category in itself associated closely with sports. This Report unpacks each of these segments.

<b>Key trends</b>	
<ul style="list-style-type: none"><li>• Indian gaming industry is currently valued at USD 930 million and is estimated to grow to USD 3750 million by 2024.<sup>1</sup></li><li>• As of 2020, there are 2.7 billion users of digital games globally.<sup>2</sup> The number of mobile gamers in India are projected to reach 368 million by 2022 from 269 million in 2019.<sup>3</sup></li><li>• Global gaming market will generate a revenue of USD 159.3 billion in 2020, representing an annual growth of over 9.3%.<sup>4</sup></li></ul>	
<b>Casual games</b> Played for fun and relaxation. India’s annual mobile game market is forecasted to grow to USD 1.1 billion by 2020. <sup>5</sup> Out of India’s total mobile gamers, most play casual games.	<b>Other e-competitions</b> Includes card games and other skill-based games played competitively with money. The online card games industry is annually growing at 35-40%. <sup>6</sup>
<b>Fantasy sports</b> Classified as digital sports engagement platforms. They are an extension of a sports enthusiasts’ viewership of her preferred sport. India had more than 90 million fantasy sports users at the end of 2019. <sup>7</sup>	<b>Esports</b> Characterised to have rigour and concentration in its gameplay, many pursue esports as a profession. India is estimated to have more than 17 million esports users currently. <sup>8</sup>

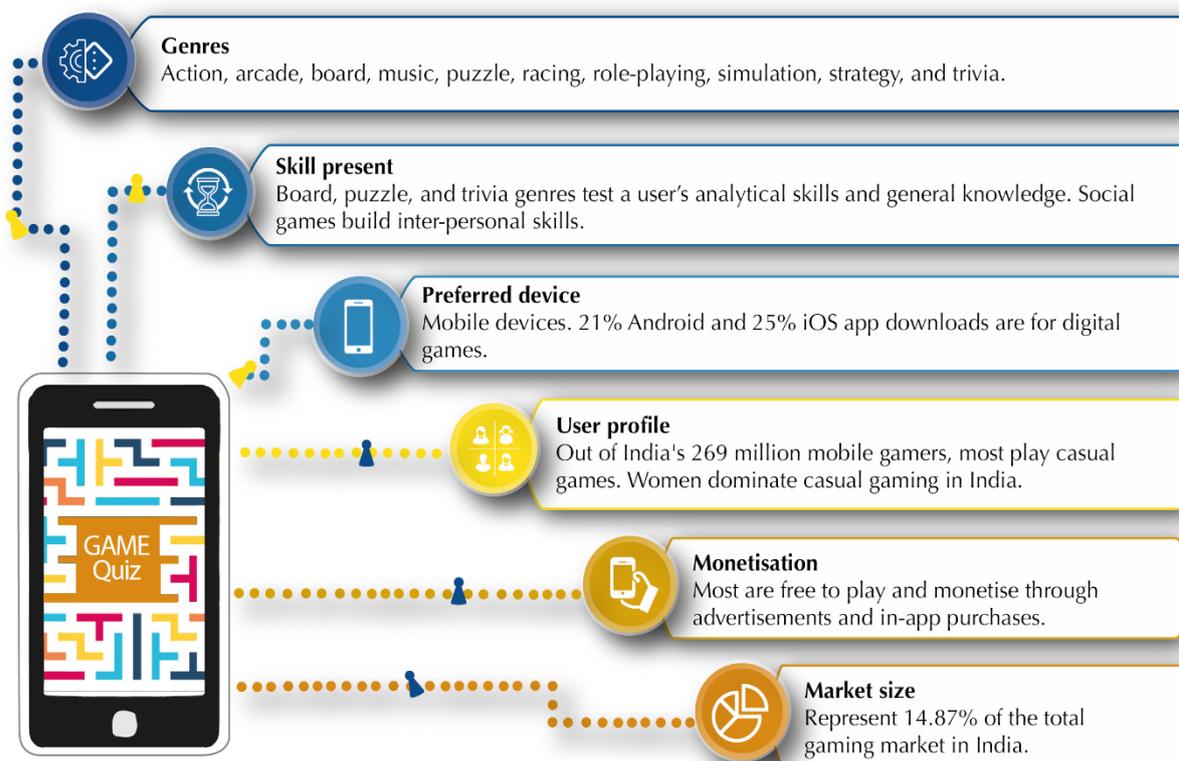
This chapter first describes the 4 (four) segments of digital games and sports, and then presents some key industry trends. The chapter concludes by discussing the economic impact this industry can bring.

## TYPES OF DIGITAL GAMES AND SPORTS IN INDIA

While digital games and sports can be classified in many ways, this Report classifies them primarily on the basis of their gameplay. The 4 (four) categories in this Report are: casual games, other e-competitions, esports, and fantasy sports. Each category is a distinct industry in itself and presents unique challenges, which we discuss throughout the Report.

### CASUAL GAMES

Developed for mass audiences with a simple, easy to understand gameplay. Do not require uninterrupted focus.



#### Casual games

Casual games are played for fun, relaxation and recreation. Typically developed for mass audiences, they have a simple, easy-to-understand gameplay.<sup>9</sup> They do not require uninterrupted focus and can be played during work breaks or commute.

**Types of casual games:** Casual game genres are action, arcade, board, card, educational, music, puzzle, racing, role-playing, simulation, social, sports, strategy, trivia and wordplay.

**Preferred device:** Games constitute 21% of Android and 25% of iOS app downloads.<sup>10</sup> Casual games are mostly played on mobile devices because they are easy to access.<sup>11</sup>

**User profile:** Out of India's 269 million mobile gamers (2019),<sup>12</sup> most play casual games. While all types of users play casual games, women dominate the number of casual gamers in India. Games like *Candy Crush*, *Clash of Clans*, and word puzzles are most popular among women.<sup>13</sup>

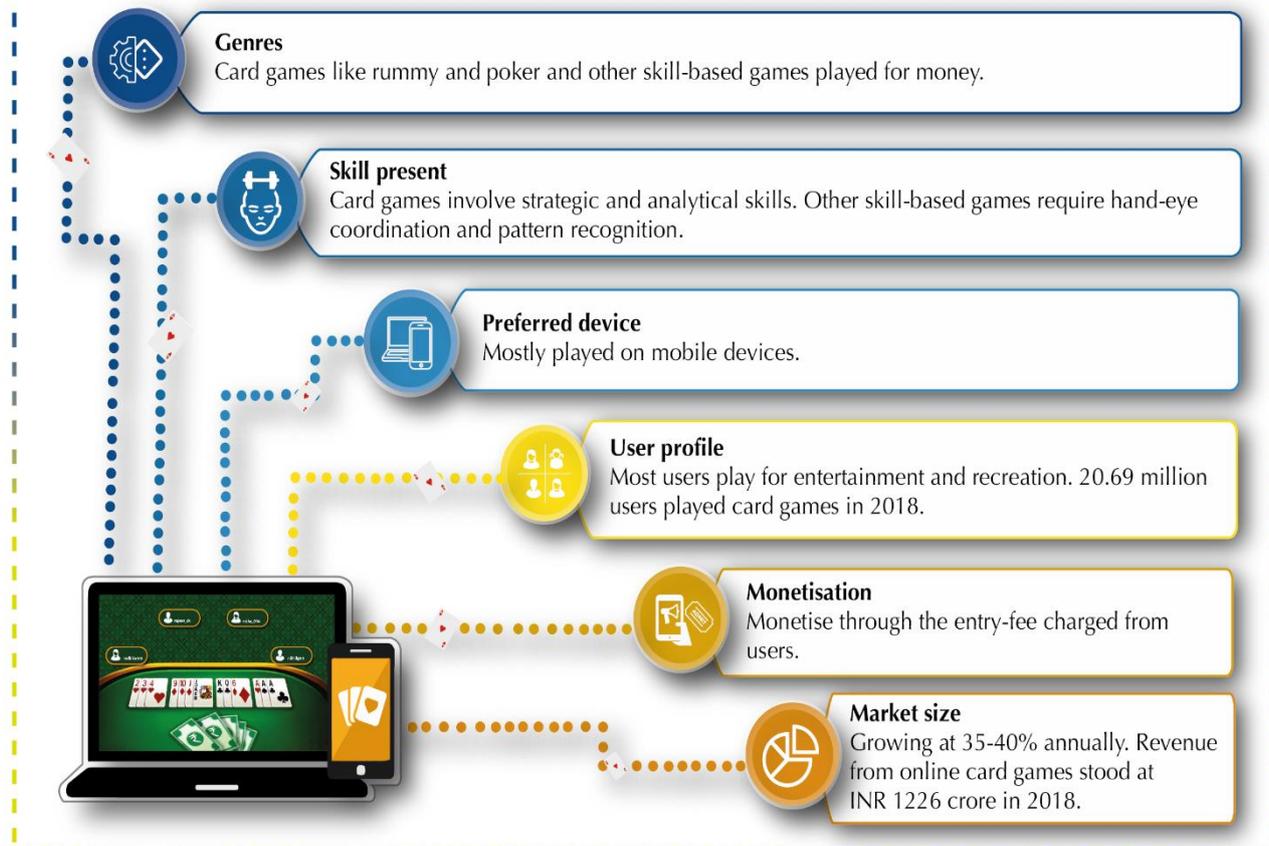
**Monetisation:** Most casual games operate on a free or freemium model, while some require an upfront payment before users can play. Game developers monetize casual games through advertisements and in-app purchases ("IAPs") offered to users.<sup>14</sup>

**Market size and revenue:** The casual game market represents 14.87% of the total gaming market in India.<sup>15</sup> India's mobile game market is forecasted to grow to USD 1.1 billion by 2020,<sup>16</sup> and mobile gaming is projected to reach 368 million users by 2022.<sup>17</sup>

**Values and skills:** Casual games in the board, puzzle, quiz, and trivia genres test a user's analytical skills and general knowledge. Many casual games are multiplayer games that can be played with friends, family, and peer groups and hence build social and inter-personal skills. Some sports and arcade games on cricket, football, hockey, basketball, etc. improve a user's interest in the underlying sport and helps to familiarize them with the rules governing the sport.

## OTHER E-COMPETITIONS

Played competitively among a group or between 2 users for money.



### Other e-competitions

These are games that are played competitively among users for real money. The competition can either be one-on-one or among a group. Playing competitively adds an element of rigour, concentration, and seriousness to the gameplay, which distinguishes this segment from most other casual games.

Types of other e-competitions: Other e-competition games include card games and other skill-based games played for money. Card games like rummy and poker are popular among Indian users.

Preferred device: Other e-competition games are mostly played on mobile devices.

User profile: Most users play other e-competitions for entertainment, some play to learn and practice the game, while few may then pursue it as a career. In 2017-18, card games were played by 20.69 million gamers.<sup>18</sup>

Monetisation: These games work on a pay-to-play model and monetise through the platform fee charged from the users. Advertisements and IAPs are also an important revenue stream for other e-competition games.

Market size and revenue: Online card games are among the most developed gaming sectors in India.<sup>19</sup> The revenue from online card games stood at INR 1226 crore in 2018,<sup>20</sup> and had a revenue growth rate of 67.58% between 2016 to 2018.<sup>21</sup>

Values and skills: Card games involve strategic and analytical skills. Rummy requires strong receptiveness, whereas in poker users calculate the opponent's move. Other skill-based games require hand-eye coordination, pattern recognition, analytical skills, memory retention, etc. which builds competitiveness between gamers.<sup>22</sup>

# ESPORTS

Category of sports played electronically between individuals and teams.



## Esports

Esports refers to the category of sports that are played electronically. They are played in competitive settings between individuals or teams and require rigorous physical and mental training, and motor skills.<sup>23</sup> The gameplay is serious, intense, fast-paced, multi-functional and is generally tied to the rules of the game.<sup>24</sup>

Types of esports: Any digital game that tests a user's speed, reaction time, and other skills on a device fits the mould of esports. Generally understood genres of esports include: first-person shooter, real-time strategy, massively multiplayer online battle arena, and battle royale games.

Preferred device: While smartphones are the most preferred method of playing esports, a sizeable number of players use gaming consoles and wearable devices like Virtual Reality ("VR") head-sets, game bands, gaming goggles, and AR glasses.<sup>25</sup>

User profile: Esports can be played casually, but they are mostly characterised by serious play and dedication, which allows players to pursue it professionally. There are over 17 million esports users in India.<sup>26</sup> Esports players across age groups are: 18-24 years (41%); 25-36 years (52%); and above 37 years (7%).<sup>27</sup>

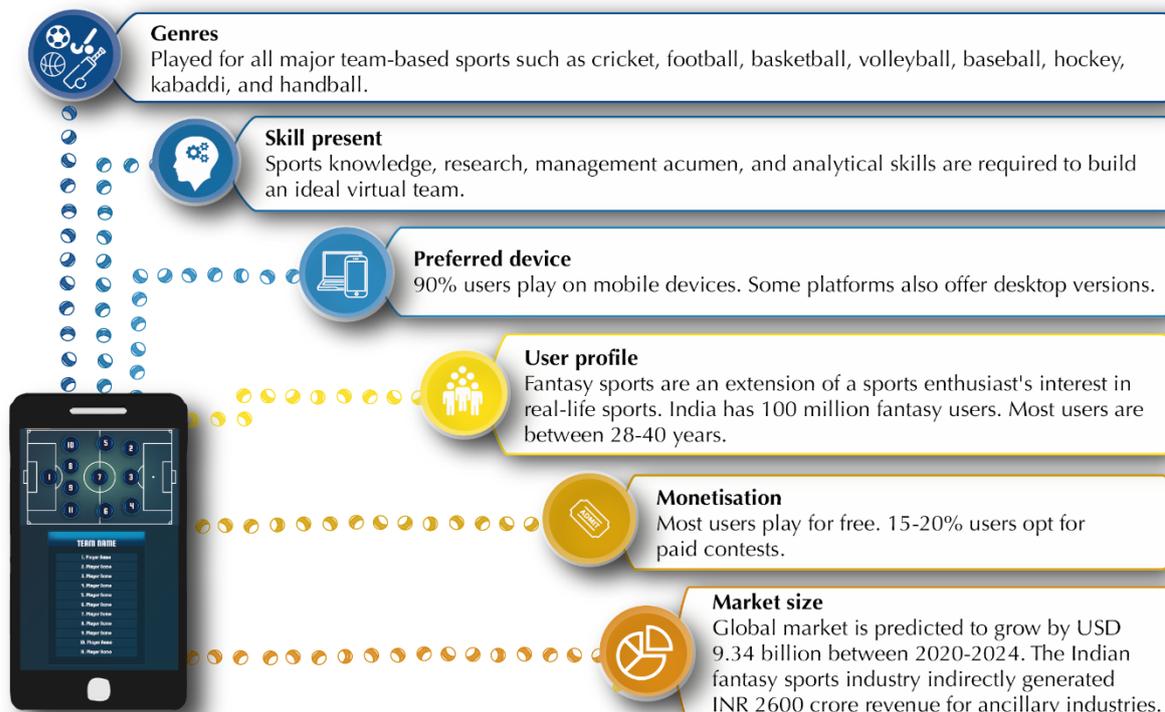
Monetisation: Esports generate revenue through IAPs,<sup>28</sup> in-game subscriptions, and advertisements.<sup>29</sup> Ticket sales, sponsorships, streaming and broadcasting rights from esports tournaments also generate revenue for some companies.<sup>30</sup>

Market size and revenue: The aggregate revenue of Indian esports start-ups in 2019-20 is USD 68 million. Esports companies are expected to generate an aggregate revenue of USD 175 million by 2023.<sup>31</sup>

Values and skills: Esports require skills similar to traditional sports. Battle royale games require multi-tasking and test strategic skills. First person shooter games improve reflexes, attention and concentration. Multiplayer Online Battle Arena ("MOBA") games involve leadership, coordination and team effort. Sport-simulation games give users an understanding of terminologies, passing concepts and defensive schemes relevant to a sport.

# FANTASY SPORTS

Not games, but digital sports engagement platforms. Users build virtual teams that compete over simulations of real-life sports.



## Fantasy sports

Fantasy sports do not fit the description of a typical game. They are a digital sports engagement platform - an extension of a sports enthusiast's engagement with the traditional sport. Typically, a user prepares a virtual team of players scheduled to perform in a real-world sport. Each user builds her own unique team and lists it on the platform. Based on the statistical performance of each real-world player, the user with the most ideal virtual team wins. Sports knowledge, research and skill is crucial in team creation and in the selection of player.

Types of fantasy sports: Fantasy sports are played for all major team-based sports such as cricket, football, basketball, volleyball, baseball, hockey, kabaddi and handball. Cricket is the most popular fantasy sports in India, with football, kabaddi and basketball also picking up pace.<sup>32</sup>

Preferred device: Around 90% of users play fantasy sports on mobile devices,<sup>33</sup> while some platforms provide a desktop version.

User profile: India had more than 90 million users at the end of 2019. Sports fans of cricket, basketball, football, etc. are the dominant users of fantasy sports. Majority of the users fall between the age category of 28 to 40. Users participate in fantasy sports contest for entertainment and for the love of the real-life sport.

Monetisation: Fantasy sports operate on a freemium model and monetise through the platform fee charged from users in the pay-to-play model. Reports indicate that 15-20% of users opt for the pay-to-play model while the rest prefer the free-to-play model.<sup>34</sup>

Market size and revenue: The global fantasy sports market has the potential to grow by USD 9.34 billion during 2020-2024.<sup>35</sup> The Indian industry indirectly generated INR 2600 crore in revenue for ancillary industries, including payment gateways, technology providers, media platforms and agencies.<sup>36</sup>

Values and skills: Fantasy sports is a way for sports enthusiasts to enjoy their sports viewing experience. It brings the experience of traditional sports home by rewarding knowledge of the sport, analytical skills, and management acumen of a user. For building her team, the user studies statistics of past performance of real sports players, does research on opponents, studies pitch and weather conditions and after analysis creates her own unique virtual team.

## KEY INDUSTRY TRENDS

This section discusses certain trends in the digital gaming and sports industry:

- Emergence of mobile-first games
- Technologies for immersive and accessible gaming
- Promotion of fair competition and secure gameplay
- Growth of digital games as spectator sports
- Preferred modes of marketing digital games
- Use of digital games as marketing platforms
- Emergence of local gaming content

### Emergence of mobile-first games

Availability of cheap smartphones and affordable data has revolutionised digital gaming in India. For users, mobile devices offer accessibility and convenience whereas developers benefit from an easier and cost-effective distribution channel. India has more than 500 million smartphone users today with forecasts to reach 859 million by 2021.<sup>37</sup> The number of active internet users is also expected to reach 829 million by 2021 from 451 million in 2019.<sup>38</sup> More than 43% of mobile users engage with at least one digital game, while 21% of Android and 25% of iOS app downloads are for digital games.<sup>39</sup> The advent of 5G is further going to disrupt the market with quicker downloads and uninterrupted speed.

“In 2012-13, we had to design Taj Rummy (technologically) around 2G. It was very difficult. With the introduction of 4G and increased access to mobile data through telecom service providers like Reliance Jio, things became a lot better for both users and platform. The advent of 4G and cheap smartphones enhanced user experience and also helped the tech team to identify technical issues in an easier way.”

- **Pariekshit Maadishetti, Founder, Taj Rummy**

Other than being handy, today mobile devices can run heavy gaming software and give the same experience traditionally offered by PCs and consoles. While chipset makers like Qualcomm are bringing a dedicated line of gaming chipsets, manufacturers like Asus and OnePlus have started offering game-centric devices. Smartphones today have specially tuned processors, accessory support, more RAM, storage, fast touch response, and long battery life. *Player Unknown's Battleground* (“**PUBG**”), *Call of Duty*, *Clash of Clans*, and *Fortnite* are among the more popular games in the current age and they are all played on mobile devices. Smartphones have also enabled the rise of platforms like Mobile Premier League, WinZO, and Paytm First Games that are able to offer multiple online games through a single mobile app.

“PC penetration is much lower in comparison to phone penetration in India, and hence the latter is more popular. But PC gaming market is also growing exponentially in India- it grew more than 100% in the last two years. Playing *Counter Strike* on PC is like test cricket - few gamers who are purists play it. Playing on mobile is like T20, because just like T20 took cricket to the masses, mobile took gaming to the masses.”

- **Sidharth Kedia, CEO, Nodwin Gaming**

Mobile gaming has also made add-on content and in-app advertisements an important revenue source. Today, many businesses are entirely built on downloadable content and paid level-ups that permit access to more content, more games, and more tools within a game. For pay-to-play games, the ease of digital payments has made mobiles the preferred device for gamers.

### Technologies for immersive and accessible gaming

New technologies help to make digital games more immersive and interactive. Augmented Reality (“**AR**”) blurs the distinction between a virtual environment and the real world. Artificial Intelligence (“**AI**”) helps to enhance a user’s gaming experience by personalising it. Cloud gaming technologies bring heavy software to an average user’s mobile phone. The gaming industry continues to explore new technologies for a novel game experience and increased accessibility.

We discuss some of these innovations below.

Innovation	Examples
<p><u><i>Voice-chats and integration with music</i></u></p> <p>Immersion, interaction and user retention</p>	<p>Character voice-overs increase realism in a game.<sup>40</sup> Background music cultivates the thematic unity of a game and justifies plot changes.<sup>41</sup> Voice chats allows players to effectively communicate with other co-players within the game, making it interactive and engaging.<sup>42</sup></p>

	<ul style="list-style-type: none"> <li>▪ <b>Casual games:</b> <i>World Cricket Championship</i> has real cricket commentary from Akash Chopra (former Indian cricketer) and Mathew Hayden (former Australian cricketer) in the game.<sup>43</sup> Salman Khan has lent his voice for the game <i>Being Salman</i> to build realism and user immersion.</li> <li>▪ <b>Other e-competitions:</b> Social gaming features like video and audio calls during gameplay on Mobile Premier League, WinZO Games, and QTalk enhances user experience.<sup>44</sup> NostraGamus collaborated with MoEngage to enable personalized interaction with users through push notifications. PokerStars offers customized sound options to players where they can upload their own musical notes in the game.<sup>45</sup></li> <li>▪ <b>Esports:</b> <i>Red Dead Redemption 2</i> had over 180 musical cues providing an immersive gaming experience. It was the highest grossing game of 2018.<sup>46</sup></li> <li>▪ <b>Fantasy sports:</b> Dream11 added their tagline, “Dimaag Se Dhoni,” as the notification sound to make messages stand out and reinforce brand recall.<sup>47</sup> DraftKings and FanDuel have interactive broadcasting on their fantasy sports platform. Players can watch, play and interact through voice calls, video chats, and real time texting while engaging with the app.<sup>48</sup></li> </ul>
<p><u>Artificial Intelligence</u><sup>49</sup></p> <p>Enhanced and personalized user experience</p>	<p>AI helps to create realistic opponents (that run and hide when shot),<sup>50</sup> develop techniques like ‘Pathfinding’ (which ensure that the gamer gets from point A to B in the shortest, most resource efficient manner),<sup>51</sup> automate content generation, and integrate tools for user feedback<sup>52</sup> and data analytics.<sup>53</sup></p> <ul style="list-style-type: none"> <li>▪ <b>Casual games:</b> Nazara Games uses an AI-based system to match opponents for its real-time multiplayer game <i>World Cricket Championship Rivals</i>. Jet Synthesys’ platform ‘Publicam’ uses AI to improve user experience.</li> <li>▪ <b>Other e-competitions:</b> Mobile Premier League uses AI to analyse user data, to collect user feedback, identify issues within gameplay, and match users based on their level of skill.<sup>54</sup> Taj Rummy uses AI to create a secure gaming environment and ensure extended auto-play when a user’s connection drops mid-session.<sup>55</sup></li> <li>▪ <b>Esports:</b> Nodwin Gaming partnered with Blink for AI-driven technology for automated content generation. It selects highlight clips from the games and provides multiple perspectives in the content.<sup>56</sup></li> <li>▪ <b>Fantasy sports:</b> Dream11 uses Haptik’s AI in its customer support system. It handles consumer requests by giving instant responses to queries.<sup>57</sup> Halaplay partnered with Roanuz for AI that helps it with real time scorecards, statistics and fantasy sports management.<sup>58</sup></li> </ul>
<p><u>Cloud computing</u><sup>59</sup></p> <p>Increased accessibility and cost efficiency for digital games</p>	<p>Sony offers a bouquet of streaming games through PlayStation Now. Microsoft announced its Project xCloud streaming plans. Google launched Stadia<sup>60</sup> and Project Stream.<sup>61</sup> Such products allow players to run a game on remote servers and stream it in real time on their devices. This means that players do not need to invest in expensive hardware, can play from any operating system and integrate gaming into TVs and other devices.<sup>62</sup></p> <ul style="list-style-type: none"> <li>▪ <b>Other e-competitions:</b> Rummy Circle uses CloudCover to re-architect its servers and make them cloud-ready. It improves scalability and has made internal processes faster and simpler.<sup>63</sup></li> <li>▪ <b>Esports:</b> <i>PUBG</i> was recently launched on Google Stadia bringing down distribution costs and preventing lag in the game.<sup>64</sup></li> </ul>
<p><u>Augmented Reality</u></p> <p>Immersion and novel gaming experience</p>	<p>AR games bring characters and objects from the game into real-world surroundings.<sup>65</sup> In the past, players needed the right supporting devices to play AR games, which prevented their widespread adoption. This is set to change with game developers bringing AR to the smartphones.</p> <ul style="list-style-type: none"> <li>▪ <b>Casual games:</b> - <i>Pokémon Go</i>, <i>Socio World</i> by Juego Studios, and <i>Coop Squad</i> are AR games that can be played on smartphones.</li> </ul>
<p><u>Virtual Reality</u></p> <p>Transforming physical worlds into virtual</p>	<p>VR machines, headsets and other products integrate VR technology into gaming. Gamers feel as though they are within the game. Oculus and Play Station VR are popular VR devices.<sup>66</sup> Device prices continue to be a barrier to the uptake of VR.<sup>67</sup></p>

	<ul style="list-style-type: none"> <li>▪ <b>Casual games:</b> Nazara Games recently collaborated with InstaSportz Consultancy to build VR gaming lounges in India.<sup>68</sup> Jetsynthesis' game <i>Sachin Saga VR</i> is the world's first VR cricket game, enabling users to experience playing cricket as Sachin Tendulkar.<sup>69</sup></li> <li>▪ <b>Other e-competitions:</b> PokerStars launched <i>PokerStars VR</i> where users can participate in tournaments held within a virtual reality environment.<sup>70</sup></li> </ul>
--	--

### Promotion of fair competition and secure gameplay

Cheating and unfair play can impact a game's popularity. This rings true for all game and sports, whether physical or digital. Cheating can take several forms: score boosting,<sup>71</sup> hidden hardware,<sup>72</sup> aim-bots,<sup>73</sup> wallhacks,<sup>74</sup> and use of fake identities and accounts. The gaming industry takes the concerns associated with cheating seriously. Some initiatives are:

**AI and machine learning:** AI helps in detecting instances of cheating by examining players' achievements, tracking progress and patterns, and alerting the platform of any sudden spikes in performance.<sup>75</sup>

**Other e-competitions:** Poker Baazi uses IDfy's fraud detection and digital Know Your Customer ("KYC") services. With the use of machine learning, it is able to detect tampering of government-ID cards, verify credentials, stop impersonation, and check if the user is legally eligible to participate and withdraw cash from the games.<sup>76</sup> Games 24x7 also uses machine learning and data analytics for consumer acquisition, consumer behaviour, and fraud detection.<sup>77</sup>

**Esports:** *PUBG* uses machine learning to weed out hackers and cheaters. It uses third-party anti-cheating software such as BattlEye and Uncheater to identify abnormal usage patterns and actively scan systems for cheating software.<sup>78</sup>

**Fantasy sports:** Dream11 uses CleverTap's automated segmentation<sup>79</sup> to categorise users and make their gaming experience competitive. Users are segmented into more than 10 parameters based on their recency, frequency and monetary transaction.<sup>80</sup>

"One interesting use of AI is that it helps users, especially from tier-2 and tier-3 cities, to protect their game progress even if they get disconnected to the internet. We have built a 'smart correction' feature based on AI that helps users to manage their show of cards in the correct order even if they are not online."

- **Pariekshit Maadishetti, Founder, Taj Rummy**

**Account banning:** Anti-cheating and account-banning technologies allow game publishers to compare suspicious applications against a database of known hacks.<sup>81</sup> A match leads to the player being banned.<sup>82</sup> Steam's Valve Anti-Cheating system analyses a player's past win-loss pattern and checks whether other players have complained against her.<sup>83</sup> If banned, a player cannot play on the platform again and the ban is publicly shown on her profile.<sup>84</sup>

**Other e-competitions:** Taj Rummy uses bots and player assistance tools to detect unfair play and blocks the users' access upon fraud detection.<sup>85</sup> PokerStars detects and bans players who deliberately lose their hand to transfer their chips to other players.<sup>86</sup>

**Fantasy sports:** Dream11 bans, moderates, or restricts players who are found to use bots, hacks and automation on its platform.<sup>87</sup> Similarly, Halaplay prevents any kind of fraud and collusion on the platform by blocking user accounts upon detection.

"An example of how we use AI is fraud detection. In Rummy, we can rate the quality of every move. Each person gets cards of a certain quality and you can look at the velocity of improvement of cards of a particular person. When we see that in conjunction with other people's behaviour on that table, we can figure out in almost all cases, if someone is colluding."

- **Saurabh Aggarwal, Founder, Octro Inc.**

### Blockchain

Blockchain technology ensures that a game is not shut down because of an attack on a centralized server.<sup>88</sup> It keeps performance and winnings data regularly updated and makes sure it is not tampered with.<sup>89</sup> Further, blockchain ensures the security of non-fungible digital assets which may be exchanged for real money in the game.<sup>90</sup> Specific applications in card games guarantee that competitors cannot look at their opponents' cards to modify their own bets.<sup>91</sup>

### Growth of digital games as spectator sports

Digital gaming today is not restricted to people playing games on a device. Esports and other e-competitions have emerged as spectator sports. The *League of Legends* World Championship 2019 boasted over 100 million viewers, with 1.7 million peak concurrent viewers on YouTube and Twitch.<sup>92</sup> In comparison, the Super Bowl had 100.7 million viewers.<sup>93</sup> Globally, esports viewership is expected to compete with, and possibly surpass, traditional sporting events by 2021.<sup>94</sup> In fact, media rights generate significant revenue for the global esports industry. In 2020, it is expected that the USD 822.4 million of the total global esports revenue of USD 1.1 billion will come from sponsorships and media rights.<sup>95</sup> This number will increase to USD 1.2 billion by 2023, making up 76% of total esports revenues. Additionally, consumer spending on merchandise and tickets is projected to add up to USD 121.7 million in 2020.

### Livestreaming tournaments

The primary source of viewership for esports and other e-competitions is through online livestreaming platforms. Facebook Gaming, YouTube Gaming, and Twitch are popular examples. Between 2018 and 2019, livestreaming of games on these platforms grew by 12% from 1.07 billion to 1.19 billion hours.<sup>96</sup> YouTube appears to be the most popular livestreaming platform in India.<sup>97</sup>

**Other e-competitions:** PokerStars runs a Twitch channel with more than 2,55,628 followers where it uploads and live streams videos on poker tournaments including the European Poker Tour. Poker Baazi has over 3000 followers on YouTube and live streams the Baazi Poker Tour. Rummy Circle with over 6500 followers live streams the annual Grand Rummy Championship.

**Esports:** Popular channels that livestream esports include Pewdiepie (livestreams *Minecraft* and *Call of Duty* and has over 25,113,728,249 views)<sup>98</sup> and Dota2mc\_ru (livestreams *DoTA 2* and has over 9,124,448 views). In India, popular Indian live streamers on YouTube include Dynamo Gaming (8.45 million subscribers)<sup>99</sup> and MortalL (6.20 million subscribers).<sup>100</sup>

### Television broadcast

**Other e-competitions:** ‘Match Indian Poker League’ is one of the first televised poker tournaments that was launched by Poker Raj and will be aired on MTV.<sup>101</sup> Adda52 also hosts live poker tournaments through its Adda52 LIVE. It has collaborated with the World Poker Tour and has the right to host and broadcast the event through online satellites. DSPORT, a premium sports TV channel in India, has acquired the exclusive rights to broadcast season-2 of the Poker Sports League.<sup>102</sup>

**Esports:** Nodwin Gaming partnered with MTV India in December 2019 to air a weekly show called Esports Mania, which includes segments like esports 360, Match of the Week, World of Esports, and other documentaries.<sup>103</sup> Esports Mania provides an in-house analysis of the most popular games played in the week.<sup>104</sup> In June 2020, Airtel and Nodwin Gaming have also partnered to cover all tournaments from Nodwin Gaming, across CS:GO, Clash of Clans, FIFA, and PUBG mobile, as a part of ‘Airtel India Esports Tour’.<sup>105</sup> USports broadcasted its show UCypher on several platforms, including MTV India in 2018.<sup>106</sup>

### Esports as an offline event in stadiums

**Esports:** EGamers Arena organised the Indian qualifiers for World Cyber Arena Grand Finals, a Chinese championship featuring games like *DoTA 2*, *Counter Strike* and *Overwatch*.<sup>107</sup> Nvidia hosted 5 GamerConnect symposiums across India in 2018.<sup>108</sup> The 2019 *PUBG* Mobile Club Open regional finals, held in Thyagraj Stadium (Mumbai), was attended by around 4000-5000 people. The same event had close to 40 million viewers on YouTube. This indicates that while physical tournaments do generate interest and help build a community, esports viewership in India is predominantly online.

### **Preferred modes of marketing digital games**

Like any other booming industry, marketing is crucial to the popularity of digital games. Companies and developers use unique ways to target the right audience. While young adults get interested by watching game streams on YouTube and Twitch, others get attracted by offers and cashbacks. Celebrity brand ambassadors and cross-promotion on other games are also common in some digital games.

Some preferred modes of marketing digital games are:

Marketing strategy	Examples and use cases
<p><u>Sponsorships</u></p> <p>Providing financial assistance to support the organisation of events, tournaments or other activities for brand promotion</p>	<ul style="list-style-type: none"><li>▪ <b>Fantasy sport:</b> They are closely associated with physical sports and regularly sponsor sporting events. Dream11 has partnered with International Cricket Council (“<b>ICC</b>”), Pro Kabaddi League, International Hockey Federation, and Big Bash League in the past. Most recently, it bagged the title sponsorship rights to IPL 2020 with a bid of INR 222 crores.<sup>109</sup> In 2019, MyTeam11 sponsored the tour of the Indian cricket team to the West Indies. My11Circle regularly sponsors content on apps like CricBuzz.</li><li>▪ <b>Other e-competitions:</b> Mobile Premier League is the title sponsor of the Ireland cricket team, Indian Premier League (“<b>IPL</b>”) franchisees Kolkata Knight Riders and Royal Challengers Bangalore, and Caribbean Premier League (“<b>CPL</b>”) franchisee Trinbago Knight Riders. PayTM First Games became the title sponsor of the CPL franchisee Jamaican Tallawahans. Recently, Rummy Circle became the title sponsor for the 2020 season of ‘Khatron Ke Khiladi’. PokerStars has sponsored the European Poker Tour.</li></ul>

<p style="text-align: center;"><u>Use of YouTube and Twitch</u></p> <p>Regular video content and live game streams from gamers and influencers keep the users engaged and interested.<sup>110</sup> Gaming influencers on YouTube have a huge following. For eg: PewDiePie (over 90 million), Vanoss Gaming (over 25 million), and Ninja (22 million).</p>	<ul style="list-style-type: none"> <li>▪ <b>Casual games:</b> Nazara Games has a YouTube channel with over 80,000 YouTube subscribers where it posts content on cricket, carrom and other casual games.<sup>111</sup> Influencers regularly stream their <i>World Cricket Championship</i> and <i>Sachin Saga</i> gameplays on YouTube. CraftedThings is another YouTube channel which streams <i>Minecraft</i> and has over 1.3 million subscribers.</li> <li>▪ <b>Other e-competitions:</b> PokerStars has over 8,50,000 YouTube subscribers and 2,35,000 Twitch followers. Users can follow live streams of national and international poker tournaments and learn poker tips from experts on the channel.<sup>112</sup> Passion Rummy has 2,850 subscribers and regularly posts influencer content, tricks, strategies and memes related to rummy.</li> <li>▪ <b>Esports:</b> <i>Fortnite</i> secured close to 49 billion views through influencers in 2019.<sup>113</sup> Close to 6% of all video influencers on YouTube create <i>Fortnite</i> videos.<sup>114</sup> Nodwin Gaming has 38,800 YouTube subscribers and has videos on <i>CS:GO</i>, <i>PUBG</i>, <i>Tekken</i>, gaming podcasts, and upcoming esports tournaments.</li> <li>▪ <b>Fantasy sports:</b> Dream11 has over 37,600 YouTube subscribers. The channel covers sports match previews, player interviews, stories of Dream11 users, and the latest updates at Dream11.</li> </ul>
<p style="text-align: center;"><u>Building Gaming Communities</u></p> <p>Creating user interaction and fan-base through regular content sharing on blogs, forums, and social media.</p>	<ul style="list-style-type: none"> <li>▪ <b>Casual games:</b> Nazara Games partnered with Royal Challengers Bangalore to build the largest cricket community on mobile. <i>World Cricket Championship</i> has a Facebook community of 5,56,000. <i>Ludo King</i> has over 2.2 million Facebook followers.</li> <li>▪ <b>Other e-competitions:</b> Mobile Premier League runs a ‘MPL Stars’ community of players with the best skill-sets on its platform. PokerStars runs a ‘Discord community’ which is a voice and text platform for people to chat within games, or discuss games when they are not playing.<sup>115</sup> Rummy Circle organizes ‘Summer Party’ where people interact with each other and play rummy.<sup>116</sup></li> <li>▪ <b>Esports:</b> Nodwin Gaming is building India’s esports community by partnering with ESL, DreamHack, Valve, Blizzard, and Tencent. Nodwin Gaming and Gaming Monk organise offline and online tournaments for <i>PUBG</i>, <i>League of Legends</i>, <i>Fortnite</i>, <i>FIFA</i>, <i>CS:GO</i>, and <i>DOTA</i>.</li> <li>▪ <b>Fantasy sports:</b> Dream11 leads India’s fantasy sports community with more than 80 million users.<sup>117</sup> FanCode also caters to sports enthusiasts by offering long tail sports content, live sports streaming, and contextual commerce on its platform.</li> </ul>
<p style="text-align: center;"><u>Cross promotion and rewarded advertisements</u></p> <p>Promoting games of other companies and in-game benefits.</p>	<ul style="list-style-type: none"> <li>▪ <b>Casual games:</b> Gaming platforms are used to promote a game of another company. Free-to-play games reward users with in-game benefits for viewing ads on their platform. Voodoo and Ketchapp comprise 48% of all arcade games downloads.<sup>118</sup></li> </ul>
<p style="text-align: center;"><u>Prize Money</u></p> <p>Millions of dollars are offered in prize money today.</p>	<ul style="list-style-type: none"> <li>▪ <b>Esports:</b> The ESL India Premiership organised by Nodwin Gaming for <i>CS: GO</i>, <i>Clash of Clans</i>, and <i>FIFA</i> has a prize pool of INR 1.15 crores.<sup>119</sup> The ESL One Championship for <i>DOTA 2</i> had a prize pool of USD 300,000.<sup>120</sup> Overall, there is a 123% increase in the amount of prize money between 2016-18.<sup>121</sup></li> </ul>
<p style="text-align: center;"><u>Cashbacks, referral and coupons</u></p> <p>Benefits that can be redeemed for cash or exclusive rewards.</p>	<ul style="list-style-type: none"> <li>▪ <b>Other e-competitions:</b> Passion Rummy gives in-game credits and cashbacks to each user for successful referrals. Mobile Premier League provides reward in form of ‘MPL Tokens’ which enables users to enter in game and win cash prizes.<sup>122</sup> Taj Rummy allows its players to refer and earn INR 3000 for each player.<sup>123</sup> NostraGamus collaborated with CouponzGuru for cash coupon deals on the game. PokerStars offers a program titled ‘Stars Rewards’ which offers various rewards as well as StarsCoin, which users can exchange for various merchandise at a dedicated rewards store.<sup>124</sup></li> </ul>

	<ul style="list-style-type: none"> <li>▪ <b>Fantasy sports:</b> Halaplay gives a cash bonus of INR 1000 on a deposit of INR 5000 or above. Dream11 gives discount coupons to users for participating in specific contests.</li> </ul>
<p><u>Partnerships</u></p> <p>Collaborate with credible IP, personalities and organisations</p>	<ul style="list-style-type: none"> <li>▪ <b>Casual games:</b> Nazara Games partnered with Green Gold, Viacom 18, Virat Kohli, Rohit Sharma, and Hritik Roshan to launch multiple casual games.</li> <li>▪ <b>Other e-competitions:</b> PokerStars has MS Dhoni as their current brand ambassador and had Nawazuddin Siddiqui endorse the brand in the past.<sup>125</sup> Vijender Singh is the brand ambassador of Poker Baazi. Mobile Premier League has collaborated with Virat Kohli and Viswanathan Anand to promote their games.</li> <li>▪ <b>Fantasy sports:</b> Dream11 is the official fantasy sports partner for the ICC, the Board of Control for Cricket in India, IPL, National Basketball Association, International Hockey Federation, and various other leagues.<sup>126</sup> They have partnered with celebrities like MS Dhoni, Rohit Sharma, Kane Williamson, and Faf Du Plessis to support sports growth.</li> </ul>

### The use of digital games as marketing platforms

With a spike in the number of gamers in India, gaming platforms are increasingly used for marketing of products. Smart product placement can help create brand recognition among the gaming audience. Experts believe that about 20% of this audience is converted into customers.<sup>127</sup> Digital marketers are also able to provide relevant targeted content to users through digital games.

#### Promotion of movies and songs

**Casual games:** 99 games made widely popular games on the Dhoom and Dab Bang franchise.

**Esports:** Upcoming movies use gaming platforms for endorsements. Bollywood movie ‘Uri’ partnered with *PUBG* for promotion, riding on the thematic similarity of the game with the movie. Winners also stood a chance to play with the lead actor, Vicky Kaushal. The campaign achieved over 300,000 views with over 13,000 registrations and 10,53,000 impressions.<sup>128</sup> Musician Alan Walker collaborated with *PUBG* on its one-year anniversary.<sup>129</sup> Similarly, Weezer, a music band, released its music album on *Fortnite*. It also released a customised map especially for *Fortnite*, where unreleased songs from Weezer’s album played in the background.<sup>130</sup>

#### In-game advertisements

Advertisements come up as pop-ups in digital games, either as interstitial advertisements or with an optional view if users want in-game rewards.<sup>131</sup>

**Casual games:** Nestlé collaborated with King (the developer of *Candy Crush Saga*) and ran reward advertisements across King’s 200 games.<sup>132</sup> Pepsi was the first company to come up with its ‘adver-game’ Pepsiman in the 1990s<sup>133</sup>. Products like Dabur real juice, Dettol, Patanjali, Good Night, and Mountain Dew have been marketed through some of the most popular games from Nazara Games.<sup>134</sup>

#### Increasing social awareness and taking up social initiatives

**Casual games:** Games like *Candy Crush Saga* and *Farm Heroes Saga* are showing in-game adverts driving the UK government’s ‘Stay home. Save lives.’ slogan during the Covid-19 pandemic.<sup>135</sup> The game *This War of Mine*<sup>136</sup> captures the effects of war on civilians. In India, Nazara Games developed *Chhota Bheem Swachh Bharat Run* inspired by the Swachh Bharat Abhiyan. The game allows players to run through cities like Mumbai, Delhi, Jaipur, and collect waste with Chhota Bheem to make India clean.<sup>137</sup>

**Other e-competitions:** During the Covid-19 pandemic, Mobile Premier League organised an online chess tournament in collaboration with the Karnataka government to spread awareness. All proceeds collected from the tournament were contributed to the state relief fund for the Covid-19 pandemic.<sup>138</sup> Poker Baazi worked with Non-Governmental Organization (“NGO”) Khushii to fund the education of 40 underprivileged girls for a year.<sup>139</sup> In 2018, Poker Baazi and Spartan Poker hosted a special tournament to collect funds for the Kerala Flood Relief to help the victims.<sup>140</sup> Passion Rummy launched ‘Refer a Friend’ programme to promote real friendships by nurturing their bond.<sup>141</sup>

**Esports:** Nodwin Gaming joined hands with the WHO to promote its safety campaign #PlayApartTogether to encourage people to stay at home during the Covid-19 crisis.<sup>142</sup>

**Fantasy sports:** Dream11 runs the Dream Sports Foundation (“DSF”), a philanthropic arm that aims to positively impact the Indian sports ecosystem.<sup>143</sup> During Covid-19, DSF, in partnership with various NGOs and governments took up several initiatives including distribution of ration, masks and PPE kits to frontline workers such as police, doctors, and sanitisation workers. DSF

also provides financial aid to athletes, coaches and stakeholders in the sports ecosystem. To support development of sports and technology, the company also runs an accelerator program DreamX for sports start-ups where start-ups receive seed funding of USD 1 million, free co-working space, and free training and mentorship from top management at Dream11.<sup>144</sup>

#### In-game product or brand placement

**Casual games:** POKKT, a leading smartphone advertising platform partnered with Nazara Games to deliver more than 1.18 billion in-game brand views for Parle-G within 2 months.<sup>145</sup> POKKT used two of Nazara Games' most popular games, *Chhota Bheem Jungle Run* and *Motu Patlu Race* and placed Parle-G's branding on in-game consumables, power-ups, and banners.<sup>146</sup>

**Esports:** Gatorade allowed players of EA's *Madden NFL Mobile* a digital electrolyte boost through Gatorade energy refills which allowed players to play for longer durations.<sup>147</sup>

#### **The emergence of local gaming content**

Each country has unique preferences when it comes to gaming content, and India especially so with its diverse culture and regional languages. Users are attracted to games that are based on festivals or folklore from Indian culture.

For instance, *Raji: An Ancient Epic*, developed by Pune-based Nodding Head Games, unfolds the life of Raji who is on a journey to rescue her younger brother Golu, kidnapped on the festival of Raksha Bandhan, by the demon lord Mahabalaraja. Game developers such as WinZO give an option to the user to play games in different regional languages like Gujarati, Bangla, Marathi, Telegu, and more. Digital versions of traditional games such as *Ludo King*, *Carrom 3D*, *Kho Kho Game*, and *Snakes and Ladders* also have good user traffic because of their recall value and adaptability. India's fascination for Bollywood has also led to the popularity of games like *Dhoom 3: the game*, *Fan: the game*, and *The Sultan* which also became the number 1 game by downloads on the Google Play Store. Another example is *Train Simulator* which became popular due to its endless runner mechanism mixed with familiar theme settings from India's railway network.

With India's push for 'Vocal for Local' and Prime Minister Narendra Modi emphasising on the need to develop games based on Indian culture, local content and customisation for regional languages is set to transform the gaming sector. The recently organised 'AatmaNirbhar Bharat App Innovation Challenge' recognised games such as *Hitwicket Superstars*, *World Cricket Championship 2*, and *Scarfall: The Royale Combat* as winners.<sup>148</sup>

"India has developed as a market for alpha and beta testing of digital games, but we are yet to become a content creating economy. The growth of the industry lies in its ability to tell better stories and having people who can imagine gaming worlds. If we can start creating content and integrate it with our existing development infrastructure, India can become a leading gaming economy."

- **Dr. Aditya Deshbandhu, Asst. Professor (Game Studies, New Media, and Digital Culture) at IIM-Indore**

"Technology has been leveraged to digitize traditional games like carrom, ludo, card games for mobile devices. As people generally take significant time to learn games, familiar game formats and local content will see massive adoption in the coming years."

- **Manish Agarwal, CEO, Nazara Games**

### **ECONOMIC GROWTH THROUGH DIGITAL GAMES AND SPORTS**

The global gaming market is estimated to reach a market value of USD 159.3 billion in 2020,<sup>149</sup> while the Indian market stands at USD 930 million.<sup>150</sup> Projected to grow at a CAGR of 47% by 2022,<sup>151</sup> industrialists predict that this industry will soon be bigger than the music, movie, and television industries put together. India has seen a ten-fold rise in the number of game development companies from 2010 to 2018.<sup>152</sup> Several homegrown game developers have emerged. Foreign investment in the Indian gaming industry is also on the rise.<sup>153</sup> Indian developers also partner with established global names to create new content. This growth has created employment opportunities and given rise to allied jobs, such as live streamers and esports coaches.

"The gaming industry in India today is amongst the most exciting investment opportunities globally and has drawn in investments from a wide range of investors, including large industry participants as well as first-time investors who have never invested in India before. We believe this trend will continue into 2021 and well beyond that as the market continues to grow, monetization increases, and new business models emerge."

- **Girish Punjabi, Vice President, Raine Advisors India Private Limited**

## Rapid investments in the Indian gaming industry

Globally, the industry has received over USD 9.6 billion in investments.<sup>154</sup> India's gaming industry has attracted about USD 575 million from venture capital firms between 2014 and 2020.<sup>155</sup> Marquee investors such as Sequoia, Alibaba, Softbank, and Tencent already have significant investments in Indian gaming start-ups, whereas funds like Lumikai have also mushroomed recently with a specific focus on the Indian gaming ecosystem. Indian investors are also penetrating gaming markets outside India, with Nazara Games looking to invest upto USD 20 million in 2020 in gaming start-ups across India, Africa, and the Middle East.<sup>156</sup> With 'KITVEN-4' – an INR 20 crore fund set up by the Government of Karnataka for animation, visual effects, and gaming, even state governments have acknowledged the investment opportunities in gaming.<sup>157</sup> Significant investment deals in recent years include:

Name of the company	Segment	Year	Investment (in USD)
Dream11	Fantasy sports platform	2020	USD 225 million from Tiger Global Management, TPG Tech Adjacencies, ChrysCapital and Footpath Ventures. The company is valued at about USD 2.5 billion. <sup>158</sup> In 2019, it raised USD 60 million from Steadview Capital which made the company a unicorn. Other investors include Kalaari Capitals, Think Investments, Multiples and Tencent.
Mobile Premier League	Multiple genres of online games	2020	USD 90 million from SIG, RTP Global, along with MDI Ventures and Pegasus Tech Ventures. In 2019, it raised USD 35.5 million from Sequoia India, Times Internet, and GoVentures. <sup>159</sup>
Rheo TV	Esports streaming platform	2020	USD 2 million from Sequoia India's Surge project, Lightspeed, and other angel investors. <sup>160</sup>
Router	Live sports platform	2020	USD 1.7 million from Paytm, leAD Sports, Rockstud Capital, Anthill Ventures, and others. <sup>161</sup>
Zupee	Live quiz tournaments	2020	USD 8 million from Matrix Partners India, Falcon Edge Capital, WestCap Group, Orios Venture Partners and Zupee's early stage investor Smile Group. <sup>162</sup>
PayTM First Games	Multiple genres of online games	2019	USD 20 million from AGTech and One97 Communications. <sup>163</sup>
NostraGamus	Fantasy sports	2019	An undisclosed amount from Veereni Investments to become a part of its 'Level Up' tech fund that focuses on fintech, gaming, machine learning, business intelligence, blockchain, and cryptocurrency verticals. <sup>164</sup>
WinZO Games	Multiple genres of online games	2019	USD 5 million from Kalaari Capital and Hike Messenger. <sup>165</sup>
HalaPlay	Fantasy sports	2019	USD 5.8 million from Nazara Games and Delta Corp. <sup>166</sup>
BalleBaazi	Fantasy sports	2019	USD 5 million from Snap Angel and Baazi Games.
Nazara Technologies	Casual games	2017	USD 27 million from Rakesh Jhunjhunwala and USD 51 million from IIFL's pre-IPO private equity fund. <sup>167</sup>

## The rise of Indian game developers

From a meagre 25 companies in 2010, today there are more than 275 game development companies in India, with over 15000 game developers.<sup>168</sup> As per a report released by the All India Gaming Federation, currently there are about 400 gaming start-ups in India.<sup>169</sup> There are more than 5468 Indian game publishers on Google Play Store offering over 19518 games across categories.<sup>170</sup> India is increasingly becoming a provider of skill and talent needed to develop modern games. Market insiders note that most games released by major publishers in the past 2 years have had an Indian team- be it for asset creation, quality assurance, or content design.

International studios such as Electronic Arts, Ubisoft, Nvidia, and Zynga already have game development centres in India.<sup>171</sup> Nodwin Gaming has partnered with Activision Blizzard to distribute Blizzard's content in India through its payment gateway Novaplay,<sup>172</sup> whereas Vietnam-based StomStudio has partnered with Indian publisher, Gamesbond to develop casual arcade games. Companies like Dhruva Interactive and Lakshya Digital have helped in the development of global games like *Just Cause 3*, *Forza Horizon 3*, *Spiderman*, and most recently *Dauntless*. Dhruva Interactive was even acquired by Rockstar Games (the developer of blockbuster games like *Grand Theft Auto* and *Red Dead Redemption*) and later established it as the Rockstar India Studio in 2019.

As India embarks towards 'Atmanirbhar Bharat' and 'Make in India', promoting Indian game developers will create huge returns and help India position itself as a market leader in gaming.

### Job opportunities

With the growth in investments and emergence of start-ups in the space, employment opportunities have increased. Estimates suggest that there are close to 23,000 gaming-based job openings available in India, with annual salary packages ranging from INR 3 lakhs to over INR 40 lakhs.<sup>173</sup> Experienced workers can also make up to INR 1 crore a year.<sup>174</sup> Top hirers include Ubisoft, 99Games, GSN, Moonfrog Labs, EA, Nazara Technologies, Octro and Dream11.<sup>175</sup>

<b>JOB OPPORTUNITIES IN THE GAMING SECTOR</b>
<b>Game design</b>
<p><u>Product designer</u>: They conceptualize the game and visualise the rules, environment, characters, and other game objects.</p> <p><u>Scriptwriters</u>: They set the story and context for the game; and build story narratives for user experience.</p> <p><u>Graphic designer</u>: They give a physical structure to the characters, objects, environment and sceneries in the game. For instance, they design how a character jumps or how trees swirl during a storm.</p> <p><u>UX Researcher</u>: They study the target users and do market study to get insights on user requirements. They help developers to add realistic contexts and insights in the game design process.</p> <p><u>Psychologist</u>: They engage in user research, which largely entails testing whether users experience games the way companies intend them to. They study the impact of game design on a user's psychology and help companies to make business decisions.</p>
<b>Game technology</b>
<p><u>Game engineers</u>: They create and maintain the networks and servers to ensure smooth functioning and security of the server.</p> <p><u>Programmers and coders</u>: They create technical codes to run the game concept and ensure it is in sync with the game design. They test the program codes and fix the flaws pointed out by the testers.</p> <p><u>Game testers</u>: They test the game to analyse the game's performance and identify bugs. They suggest changes to the programmers on quality and playability before the game goes public.</p> <p><u>Sound engineers</u>: They develop the audio and background score of the game in harmony with the game's storyline. They bring the game to life by including character voices and dynamic sound effects.</p>
<b>Marketing and sales</b>
<p><u>Brand managers</u>: They make sure that users know when a new game or feature is coming onto the market. They use reviews, adverts, online communities, game websites, sales platform and events to create campaigns that target specific audiences.</p> <p><u>Social media expert</u>: They act as the brand's voice on popular social media platforms such as Instagram, Facebook, YouTube, and Twitch. They create and coordinate the design of promo videos, merchandise, gifs, images and competitions.</p> <p><u>Data analyst</u>: They collect, process and perform statistical analyses on large datasets containing user information. Their analyses help companies offer better and curated product and services to users.</p>
<b>Miscellaneous</b>
<p>Like any other corporate organisation, companies in the digital game and sports industry also offer jobs in compliance, audit, risk and procurement, corporate communications, legal, public policy, finance, human resource, accounts, administration, and customer support.</p>

Allied professions have risen alongside. Gaming platforms employ professionals to organise and market tournaments. For instance, the esports industry involves coaches, sports therapists and agents to work with esports athletes.<sup>176</sup> 'Live streamers' get paid as

much as USD 50,000 an hour to stream new releases online.<sup>177</sup> Game publishers engage data scientists to improve a user's experience on their game and create personalised gameplay. The section on 'Gaming as a profession' in the next chapter describes the allied professions that have emerged in the sector.

“A number of ancillary professions have emerged due to fantasy sports. Thousands of apps and websites today provide users tips to draft a fantasy team, match analysis, research and background on players, and live scores and updates. Several books and magazines also guide users on the principles of drafting a team. These professionals help other users build better fantasy teams. Further, the fantasy sports industry is helping drive the entire sports technology ecosystem in India.”

- **Kiran Vivekananda, Chief Policy Officer, Dream11**

Additionally, around 200 start-ups serve various game-related production markets in India. The gaming industry has become an enabler of gamification in sectors such as education, healthcare, public utilities, business administration, and good governance. Skills are required at the entry, mid and mid-to-senior level, with a high demand for professionals with AR or VR app development and unity game development skills.<sup>178</sup> The section on 'Benefits of gamification' in the next chapter digs deeper into the impact of gamification.

### **Revenue generation and tax collection**

The digital gaming and interactive media industry is projected to generate revenues of upto USD 160 billion in 2020,<sup>179</sup> and scale up to USD 300 billion by 2025.<sup>180</sup> The gaming industry generates revenue through one time game sale, IAPs, platform fees, in-game ads, sponsorships, event-ticketing, content creation, streaming rights, media partnerships, and broadcasting rights, amongst others.<sup>181</sup> A huge ecosystem of Indian game developers also develop games for foreign gaming companies (reflecting the 'glocal phenomenon') and bring foreign exchange in the country.

Huge investments and rapid revenue generation in the industry can create sizable tax income for the exchequer. Industry estimates indicate that online fantasy sports platforms and operators cumulatively paid GST to the tune of INR 166 crores (approx.) in FY 2018-2019 which increased to INR 445 crores (approx.) by FY 2019-2020. Additionally, online fantasy platforms and operators deduct applicable TDS on winnings, before disbursing the amounts to the winners. As per industry estimates, the TDS on winnings in FY 2018-2019 was to the tune of INR 93 crores which increased to INR 250 crores by FY 2019-2020. A 2018 study highlights that the gaming industry in the United States (“**US**”) has a total economic impact of USD 261.4 billion including USD 74 billion in wages, USD 40.8 billion in federal and local taxes (including USD 10.7 billion in taxes from users).<sup>182</sup> The Canadian and the United Kingdom (“**UK**”) gaming industry also contributed USD 4.5 billion (2019) and USD 2.3 billion (2018) to their national GDP.<sup>183</sup> Enabling ease of business for gaming in India could result in massive tax revenues for India as well.

# CHAPTER 2

## SOCIETAL PERCEPTION OF DIGITAL GAMES AND SPORTS

### Digital games and mental health

Industry efforts to promote responsible gaming



Age-verification



Deposit limits



Health advice



Time limits



Resources for professional help

How games can help address mental health conditions like ADHD, anxiety, and autism



Promote cognitive exercises



Control hallucinations



Improve attention deficit



Stimulate motivation



WHO encouraged people to play games during the Covid-19 pandemic

### Real-world benefits of gaming through gamification

\$9.1 Bn

Global gamification market value

Gamification is the use of game elements like milestones and leader boards in non-game contexts to make routine tasks exciting and competitive.



### Gamification benefits key sectors



Education

- Increases student engagement
- Promotes situational learning



Business administration

- Useful in scientific research
- Effective in workplace trainings



Health

- Helpful in pain management
- Beneficial in physiotherapy

### Gaming is now more diversified

33%

Percentage of women gamers in India by 2021



Increased participation from these cities



Accessible to persons with disabilities



Women game developers are on the rise

### Professional opportunities in gaming

Esports players

Live streamer

Journalist

Data analyst

Coach

Author

Fantasy sports mentor

**Esports:**  
can be played professionally like traditional sport

**Fantasy sports and other e-competitions:**  
primarily for leisure and entertainment

## CHAPTER 2

### SOCIETAL PERCEPTION OF DIGITAL GAMES AND SPORTS IN INDIA

Digital games and sports are gradually becoming mainstream. Yet, public attitude towards gaming remains mixed. Some still associate gaming with gambling, or think of games as a waste of time or potentially addictive.

How society perceives each segment of the gaming industry	
<p><b>Casual games</b></p> <p>Played mostly by kids and teenagers, casual games are only for recreational and entertainment use.</p>	<p><b>Fantasy sports</b></p> <p>They are similar to other games and are addictive in nature.</p>
<p><b>Other e-competitions</b></p> <p>E-competitions are akin to gambling and casino games and lead to addiction and social discord.</p>	<p><b>Esports</b></p> <p>Esports promote aggression and mental health conditions. Esports cannot be a serious profession.</p>
<p>“Gaming has long been perceived negatively in the society. Such portrayals are not true and undermine the many benefits that gaming and gamification can bring. The industry has adopted several responsible gaming practices today and is constantly striving to create a safe ecosystem for gamers.”</p> <p style="text-align: center;">- <b>Manish Agarwal, CEO, Nazara Games</b></p>	
<p>“Games in general, whether physical or digital, contribute positively. It is not an either/or any longer. Both physical and digital games are needed.”</p> <p style="text-align: center;">- <b>Astha Ahluwalia, Chief Psychologist and Partner at Reboot Wellness</b></p>	

In this chapter, we address certain perceptions associated with: (i) digital gaming, addiction and mental health; (ii) the real-world value of gaming; (iii) digital gaming and diversity; and (iv) gaming as a profession.

#### DIGITAL GAMES AND MENTAL HEALTH

Each segment of the gaming industry harbours certain perceptions around mental health. For some, playing card games (e-competitions) reflects addictive behaviour while others blame esports for incidents of aggression.<sup>184</sup> Some parents worry that games distract children from studies. Many of these concerns stem from excessive gaming which, like excessive consumption of other forms of entertainment, can be a cause for worry. The gaming industry today takes these concerns seriously and promotes responsible play. Games can also be therapeutic and help alleviate certain mental health disorders, as we discuss below.

#### Addiction and mental health

“Screen addiction is definitely a bad thing, but it’s also about social acceptance. These are phases that come and go in any society. Anything which becomes too popular too fast is hard to decipher, and results in a generation gap. Some of those perceptions go away with time, and the society becomes more accepting about that idea. The same goes for gaming.”

- **Sidharth Kedia, CEO, Nodwin Gaming**

Critics suggest that digital games can be addictive and aggravate mental health issues, such as depression, anxiety and stress. The WHO contributed to this narrative by classifying ‘excessive gaming’ as a mental health disorder in 2018.<sup>185</sup> However, this classification has been disputed for several reasons.<sup>186</sup> For instance, the WHO relied on a single data set for the classification, triggering confirmation bias.<sup>187</sup> Also, the need for a separate classification was not made out.<sup>188</sup>

<p>Repetitive play of some <b>casual games</b> has proved to cure mental health conditions. They are also used to make learning more interactive and engaging.</p>	<p><b>Esports</b> are similar to traditional sports. They require dedication, rigour, preparation and mental and physical strength. Calling esports players addicts is similar to calling traditional sport wasteful.</p>
<p><b>Fantasy sports</b> do not pose challenges relating to addiction. Users spend limited time to build their team and cannot change anything once the real-world sport begins. Using a fantasy sports platform may be similar to viewing a sport on TV. Further, majority of the users participate in free-to-play contests and participate to follow the sport they love.</p>	<p><b>Other e-competitions</b> promote competitive play and help users to hone their overall skills. Many operators recognise that a minority of players may be at risk of negative effects and offer a number of responsible gaming tools, controls and support.</p>

Of course, excessive gameplay can be counter-productive, like any other activity pursued excessively. Recognising this, the gaming industry has taken steps to instil responsible and safe gameplay. We discuss some steps taken by each category below:

#### RESPONSIBLE GAMING AND SAFETY PRECAUTIONS BY THE GAMING INDUSTRY

Card-gaming operators such as Taj Rummy, PokerStars, Rummy Passion, Poker Baazi, and Rummy Circle have responsible gaming guidelines on their platform. Fantasy sports operators such as Dream11, My11Circle, and NostraGamus take initiatives to notify the users about their spends and advise them to exercise discretion. Further, platforms such as Mobile Premier League and Paytm First Games encourage users to take health and safety precautions. Some initiatives taken by the industry are:

**Age limit and verification:** Platforms only allow users above 18 years to participate. User information such as name, residential address, and date of birth is collected to verify the age of users. If a user is found to provide dishonest or inaccurate information, their access to the platforms is blocked.

**Guidance to parents and guardians:** Platforms advise parents and guardians to password protect their desktop and mobile devices to restrict underage children from participating. They are advised to keep a regular check of their bank account statements and to look out if their underage children speak about online game accounts during conversations.

**No targeted advertisements:** Many companies have resolved that they would not advertise their services to vulnerable groups such as users below 18 years. This ensures that children do not get attracted towards their platform at a tender age.

**Time limits:** Users are advised to set-aside a specific time to play games and balance it out with other leisure activities. Some platforms send out push notifications to users if they have exceeded a certain number of hours on the platform.

**Deposit limits:** Platforms allow users to effectively manage their bankroll for playing games. Users can set daily, weekly to monthly deposit limits and transaction counts suitably. Some companies notify the users once they exceed their average spend on the platform.

**Helping users to enhance skill:** Platforms contain comprehensive rules governing the game, tips and guidance on how users can improve their skilfulness on the platform. In addition, most platforms have free-to-play versions of the game to allow users enough time to practice and get acquainted with the platform. This ensures fair-play and enhances competitiveness.

**Health advice:** Users are advised to take standard health precautions like taking adequate breaks, sitting at a reasonable distance from the screen, playing in a well-lit environment, and avoiding play when tired, drowsy, intoxicated or under the influence of drugs. Platforms advise users to immediately consult a doctor if they feel burnt out, numb, or dizzy while playing.

**Safety precautions:** Users are advised to always be aware of their surroundings and play in a spaced environment. As users move around and concentrate on their device while playing, they are advised to not go near stairs, balconies, windows, walls, furniture or any sharp objects that may pose a danger to them or someone else.

**Self-exclusion:** Some platforms provide the users an option to self-exclude themselves from the platform. Platforms ask users certain questions to figure out whether their engagement with gaming is causing hindrance in their lives. Users can choose the self-exclusion period which varies from a week, a month, a quarter, 6 months, or can even be permanent. Self-exclusion period chose by the user is irreversible and applies to all forms of games and tournaments on the platform.

**Professional help:** Users facing persistent problems in dealing with gaming are advised to seek professional help from experts. Some platforms have a ready panel of counsellors, psychologists, and mental health professionals who work with users on their emotional, physical and mental struggles, and guide them towards wellbeing.

“To help users improve their level of skill, MPL deploys a ‘token’ system where users are given tokens to play free games in order to practice and improve their skill. This helps them before moving on to professional tournaments. MPL also provides responsible gaming guidelines, and has a ‘NoBot’ and ‘RMG’ certification, along with working on highlighting the benefits and drawbacks of gaming in general.”

- **Dibyoyoti Mainak, General Counsel, Mobile Premier League**

“We deploy means to determine which users are performing better over a period of time. The parameters that users are ranked on are based on the points they score in a match, where the score ranks in a percentile in every match, and then come up with an average percentile across different matches which is later stacked up against all users.”

- **Yashashvi Takallapalli, Co-Founder, NostraGamus and SportsCafe**

“The wellbeing of our customers always comes first, and it is our responsibility to keep our online games fun and safe. We encourage customers to take advantage of tools, such as setting deposit limits, using cool-off periods, and participating in free-to-play games. As part of our effort to ensure this operates independently, we hire a dedicated resource to audit every single action we take from a responsible gaming perspective. Besides this, we also work with various third-party partners who help those struggling with any form of gaming led addiction.”

- **Ankur Dewani, CEO, Sachiko Gaming (operator of PokerStars India)**

Further, some digital games can help alleviate stress and reduce the impact of mental health disorders. In fact, during the Covid-19 pandemic, the WHO recommended some digital games to combat social isolation.<sup>189</sup> Research shows a positive correlation between stress relief and the number of hours spent gaming each week.<sup>190</sup> Some digital games can also supplement psychological therapy.<sup>191</sup>

Disorder	How digital games can help
<u>Attention deficit hyper-activity disorder</u> (“ADHD”)	Digital games with cognitive exercises help in improving attention deficits, response times, and working memory in ADHD patients. <sup>192</sup> Some digital games are also prescribed as an alternative to ADHD medications. <sup>193</sup> For example, Akili Interactive Labs developed <i>Project EVO</i> to treat ADHD patients by rewarding them to complete certain physiotherapy tasks. <sup>194</sup>
<u>Schizophrenia</u>	Digital games that promote physical activity and require mental strategy help schizophrenia patients in controlling hallucination, reducing schizophrenic delusions, and paranoid thinking. <sup>195</sup> For example, a VR game stimulated a town where participants who were schizophrenia patients navigated actions that they would otherwise find challenging. <sup>196</sup>
<u>Post-traumatic stress disorder</u> (“PTSD”)	Digital games can help with PTSD. In a study conducted on combat veterans, <sup>197</sup> Shooting games were used in a VR set to re-create combat scenario and activate fearful stimuli to normalise patient.
<u>Autism</u>	Digital games like <i>Secret Agent Society</i> can help children with autistic traits recognise and distinguish simple and complex emotions. <sup>198</sup> Such games also help improve attention and gaze control. <sup>199</sup>
<u>Anxiety disorder</u>	Complex, situational and puzzle games usually need full immersion from a player. <sup>200</sup> This sense of immersion has been reported by patients who suffer from anxiety to negate the constant feeling of unease. <sup>201</sup>
<u>Depression</u>	Games stimulate the regions of our brain associated with motivation and goal-orientation, the lack of which are a key cause of depression. <sup>202</sup> Playing <i>Boson X</i> , a fast-paced action game, has been shown to have positive effects on cognitive flexibility and reduce rumination, both of which have positive implications for depression. <sup>203</sup>

### Aggression and digital games

Certain games are perceived as violent and aggressive. While some studies link violence with digital games, such links often tend to be overstated and based on anecdotal evidence.<sup>204</sup> For instance, news outlets rushed to establish causation when perpetrators of certain mass shootings in the US were found to be gamers.<sup>205</sup> However, studies have found these to be influenced by confirmation bias,<sup>206</sup> and potentially a means to portray digital games as the ‘folk devil’ to justify the behaviour of white men.<sup>207</sup> Increasingly, research disputes correlation between aggression and games.<sup>208</sup>

In fact, some studies state that violent games can be cathartic for aggressive people<sup>209</sup> and serve as an outlet for aggression as opposed to being a precursor.<sup>210</sup> Some surveys show that prolonged engagement with violent games helps to keep delinquents away from criminal acts.<sup>211</sup> A research published in *Violence and Gender* concluded that first person shooter game players are 67% less likely to produce hurtful content than non-players.<sup>212</sup> A survey conducted to analyse emotions of children while playing violent digital games highlighted two primary reasons for play: to compete and win (81.4%), and to vent out anger (43.2%).<sup>213</sup>

Several game developers follow the International Age Rating Coalition (“IARC”) System for age and content description.<sup>214</sup> IARC categorises a game based on its violence and limits its access only to appropriate age-groups: non-realistic violence (over 7 years), non-graphic violence (over 12 years), realistic violence (over 16 years), and graphical violence (over 18 years).<sup>215</sup> This protects the vulnerable groups from easily accessing violent content and helps them to make an informed decision before they access any game.

### Key takeaway

The gaming industry takes concerns around addiction seriously. Many platforms follow responsible gaming guidelines. They allow players to set daily/monthly limits on deposits and provide features like age-verification and self-exclusion. Some companies also provide help by offering consultation with psychologists and mental health experts. By following the IARC system, game developers keep the users informed and ensure that children and young adults are protected from violent content.

### THE BENEFITS OF GAMIFICATION

Games are perceived as a wasteful distraction with no real-world value. However, this perception focuses on the end-use of digital games and tends to ignore the elements that make a game more challenging and motivating. Gamification, or the process of inserting game elements like: challenges through competitions and quests, bonuses and collectibles for good performance, opportunity to progress, elements of strategic thinking, etc.,<sup>216</sup> is an outcome of the popularity of games. As industries and sectors go digital, the use of gamification in non-game contexts such as education, health, and business are on the rise.

**Digital games and gamification provide unique solutions in education**



Gamification in educational settings allows a student the freedom to fail without serious consequences, experiment with new strategies and roles, assume different identities through characters and avatars, and play both intensely and casually.<sup>217</sup> Further, some games impart incidental learning to users through their gameplay.

“Digital games can teach us a lot - to work in teams, lateral thinking, lower inhibitions, trust others, and be grateful.”

- Dr. Aditya Deshbandhu, Asst. Professor (Game Studies, New Media, and Digital Culture) at IIM-Indore

The table below captures the benefits of digital games and gamification in learning and education.

<p><b>Increased learner engagement:</b> Use of gamification to create participatory approaches, self-guided study, and immersive learning increases focus and attention<sup>218</sup> in student learning.<sup>219</sup></p>
<p><b>Customised learning:</b> Gamification allows a student to undertake multiple attempts at studying a challenging topic, customised specifically for her by the teacher.<sup>220</sup> Digital games foster learning by allowing the players to transcend the concept of “here and now”.<sup>221</sup></p>
<p><b>Interdisciplinary learning:</b> Gamification helps break boundaries between disciplines like math, science and humanities by combining a variety of learnings into a single gamified application.<sup>222</sup></p>
<p><b>Situational learning:</b> Digital games create situational contexts to teach students about different social and professional situations they come across.<sup>223</sup></p>

### Gaming elements contribute to business and industry

Gamification is used for business research, marketing, recruitment, and training.<sup>224</sup> The global gamification market is projected to grow from USD 9.1 billion within 2020 to USD 30.7 billion by 2025.<sup>225</sup>

Business and scientific research: Gamification helps bring fresh ideas to the table. For instance, Volkswagen held a competition to get 50,000 fresh ideas for the design of the new version of the peoples’ car.<sup>226</sup> *Foldit* is a puzzle where players receive points if they come up with elegant molecular structures (with low energy levels). It helped organise the structure of enzyme linked to the AIDS virus,<sup>227</sup> a problem that had remained unsolved for 15 years.

Marketing: In the next 5 years, almost 87% percent of the retailers will use gamification as a part of their marketing strategy.<sup>228</sup> Examples of gamified marketing include Pocari Sweat, a soft drink maker, that used *Ionopolis* where users had to defeat comic-book monsters who aimed to dehydrate a virtual town.<sup>229</sup> Approximately, 94,000 people signed-up to play *Ionopolis*.<sup>230</sup>

Workplace training: Games help with job orientation and training at the workplace. For instance, KFC<sup>231</sup> used gamified VR training to train employees in its chicken certification (i.e. the recipe for KFC chicken).<sup>232</sup> Price Waterhouse Coopers (*Multipoly Next*) teaches employees about the experience of working at the organisation.<sup>233</sup> Gamification can also help train employees in hazardous industries in safe and controlled environments.<sup>234</sup> For instance, VR games are used by miners in visualising unseen ore bodies, practicing high risk tasks, and reconstruct accidents for analysis and prevention.<sup>235</sup> VR simulation is also helpful in military training by allowing troops to train on different simulated terrains.<sup>236</sup> The Indian Army uses VR simulation devices to train soldiers.<sup>237</sup>

Recruitment and representation of organisations: Gamification helps assess an individual’s personality, strengths and skills and then match them with the right career and organisations.<sup>238</sup> Companies like Bunchball, Captain Up, and Games for Business use gamification for accelerating employee and customer engagement (by using techniques like leader-boards, rewards, etc.) for organizations like Uber, Dell, HP, Ford, Virgin, Universal, Adobe, ESPN, MTV and HBO, etc.<sup>239</sup>

### Digital games and gamification benefit the healthcare sector

Digital games are beneficial to physiological health and well-being.<sup>240</sup> The gamification market (including digital games, exercise games, and serious games) in the healthcare industry was worth USD 16 billion in 2016 and is projected to grow to approximately USD 40 billion by 2024.<sup>241</sup>

Gamification can help with pain management by distracting patients from painful sensations.<sup>242</sup> For instance, games were used to distract an eight-year-old, who was suffering from neurodermatitis - a condition where he constantly picked at his upper lips and consequently scarred them.<sup>243</sup> Digital games can particularly be useful for young children. Nimaya Robotics uses robot-based therapy to help autistic children perform basic functions with its ‘Joystick Skill Learning Unit’, that trains children to open a door, tie a shoe, wear a shirt, etc.<sup>244</sup> Digital games have also proven beneficial in physiotherapy to help patients with muscular dystrophy and spinal cord injuries. For example, BeAble, a health-tech start-up recently released a game-based arm rehabilitation device. The device motivates a patient to engage in therapy sessions using immersive games and to sustain repeated sessions.<sup>245</sup>

Besides their use for rehabilitation, digital games can also overcome barriers of limited mobility and balance, offering an alternative to traditional exercise programs. In a study, digital games significantly increased energy expenditure and activity levels in older people (people greater than 65 years in age) when compared with rest. This activity equates to light intensity exercise.<sup>246</sup>

“I have seen children as well as older people respond well to and benefit from digital games. In one case, an older person (above the age of 50 years) felt mentally agile after playing games such as word puzzles. In another case, a 12-year-old playing competitive games (including a digital version of cricket) showed improvements in confidence levels and also started to engage more in physical sports.”

- **Astha Ahluwalia, Chief Psychologist and Partner at Reboot Wellness**

### Key takeaway

Digital games are not just about play. They help create innovative elements that keep users engaged and motivated to use digital platforms, whether it be for education, career, or health. In the absence of a sustainable environment for the digital gaming industry, the use and application of gamification may also become dull and archaic. The use of gamification in the global market is projected to grow at an annual rate of 27.4% between 2020 to 2025.<sup>247</sup> All of this may be difficult without nurturing the gaming industry.

## DIVERSITY IN DIGITAL GAMES AND SPORTS

Digital games were traditionally associated with a young male audience. This is gradually changing. Today there is a game for everyone regardless of their gender or age.

### Increased female representation

The digital gaming community was historically male-dominated. Instances of sexism came to the mainstream in 2014 through the Gamergate controversy (where female gamers received death and rape threats over online platforms).<sup>248</sup> Gamergate opened the discussion on bias and myths against women in the digital gaming industry.

#### Women as digital gamers

Women now constitute almost half of the gaming demographic.<sup>249</sup> More than 1 billion women across the world are active gamers or digital game enthusiasts (i.e. those women who not only play digital games but view and stay updated with the latest trends in digital gaming).<sup>250</sup> In China: 46% of gamers are women.<sup>251</sup> In the US: 46% of gamers are women,<sup>252</sup> while 29% of esports fans are women.<sup>253</sup> In South Korea: 43% of mobile gamers are women,<sup>254</sup> and 47% of women play at least once/month.<sup>255</sup> In the UK: 48% women play mobile games,<sup>256</sup> while 26% of women in the UK play PC games.<sup>257</sup>

India: By 2021, women will make up 33% of the gaming population.<sup>258</sup> Cyber Media Research analysed 2,000 smartphone gamers in India and revealed that 95% women are active gamers as compared to 85% men.<sup>259</sup> Amongst women, *PUBG* (45%), *Candy Crush* (39%), *Clash of Clans* (22%) and word puzzles (22%) are the most popular games.<sup>260</sup> According to Games2win, among their 80 million game downloads, 62% have been from women.<sup>261</sup>

Participation of women in other e-competitions and competitive esports is also on the rise. Muskan Sethi is among the world's most successful poker players. She was also given the 'First Ladies' award by the President of India for being India's first female professional poker player. Team GERayne, a group of 5 Indian female players, recently represented Central Asia and were runner-up at the *Legion of Valkyries*, an all-female *Counter Strike: Global Offensive* competition organized by Lenovo.<sup>262</sup> Entity Gaming also recently launched a team of female *PUBG* players called 'Entity Athena'. The initiative is aimed at creating opportunities for female esports players.<sup>263</sup>

#### Gaming genres preferred by women

**Fantasy sports:** In 2019, 19% of fantasy sports players in the US and Canada were women.<sup>264</sup> In India, gaming platforms have reported that women constitute more than 20% of fantasy sports players.

**Casual games:** 76% of the millennial female gamers (ages 18-34) prefer casual games, like puzzles, racing games and party games.<sup>265</sup>

**Esports:** 35% of players who play MOBA games are women.<sup>266</sup> A survey showed that almost 80% of female digital gamers believe that playing action games is empowering.<sup>267</sup>

"For PC gaming, 90% of the players are male. However, in *PUBG*, females account for a sizeable 35% of the gamers. The reason for this gap is that Indian households do not encourage girls to play games. For instance, in Indian culture, shooting games are associated with a 'machismo' as opposed to a 'feminist' image. However, with the increasing popularity of the battle royale format, that perception has started to change. PC gaming is something which came from the West. But mobile gaming became a phenomenon first in East, and then became popular in the West. Casual mobile games on the other hand, are often female centric."

- Sidharth Kedia, CEO, Nodwin Gaming

#### Female workforce in the gaming industry

A greater number of women are entering the gaming industry workforce. Several successful gaming companies like ThatGameCompany and Azoomer were founded by women.<sup>268</sup> Organisations like 'Girls Who Code' are working towards increasing diversity in the digital gaming community by encouraging young girls to learn coding (a vital part in game development) and inspire them to seek jobs as programmers.<sup>269</sup> Several digital gaming companies in the UK have committed to increasing diversity among their employees through the #raisethegame challenge by 2021.<sup>270</sup>

“Octro, Inc. has a good male-female distribution in its workforce. However, it varies from department to department. For example, game development has only 15% female members, but product management has 70% female members.”

- Saurabh Aggarwal, Founder, Octro, Inc.

In India alone, the participation of women in the gaming industry has increased significantly.<sup>271</sup> Indian gaming start-up Hitwicket, recently selected for the Google Game Accelerator, has a female co-founder.<sup>272</sup> Around 10% of game development, which includes coding, is done by women, while between 30% to 40% of women are employed for technical assistance.<sup>273</sup> While there is still a long way to go, the gradual increase in female developers and enthusiasts is encouraging.

Industry initiatives to improve diversity

The gaming industry is actively seeking to promote greater participation by women and attract a greater female workforce. Some examples include:

Fantasy sports	Casual games	Other e-competitions
Dream11 has fantasy sports offerings for several women’s tournaments in cricket, football and volleyball.	<i>Raji: An Ancient Epic</i> , an action-adventure game developed by Nodding Head Games, has a female character Raji as the lead.	PokerStars has designated Muskan Sethi, India’s first female poker player, as a PokerStars ambassador.
Esports		
Previously, several esports had overtly sexualised female characters in the background. <sup>274</sup> This is now changing with game developers introducing lead female characters. Examples include games like <i>Last of Us Part 2</i> , <i>Gears 5</i> and <i>Beyond Good &amp; Evil</i> .		

**Digital games appeal to all age groups**

Digital games appeal to all age groups: while the working populace plays digital games to unwind and de-stress, the older demographic plays to combat loneliness or deal with the loss of a loved one.<sup>275</sup> An average gamer in the US and EU is over 30 years old.<sup>276</sup> While, in India, an average gamer is below 24,<sup>277</sup> different forms of digital games have emerged that appeal to different age groups.

Average age of gamers: While the average age of Indian gamer is below 24 years old,<sup>278</sup> the average age of online fantasy sports users is between 28-40 years. In the US the average age is 33 years old.<sup>279</sup> In Europe, the average age of a gamer is 31 years old.<sup>280</sup>

Average time spent by players on games:

Age Group	Average time spent by players on games (hours/week) <sup>281</sup>
18-25 years	7.48
26-35 years	7.50
36-45 years	7.09
46-50 years	5.72
Over 60 years	4.70

**Digital games are increasingly focussing on diversity and inclusion**

Digital games can help promote diversity and reduce prejudice. For example, studies show that children who play multiplayer games are less likely to hold prejudices against people from other countries in a stark contrast with 50% of non-gamers who hold such prejudices.<sup>282</sup> In addition, various competitive digital games match users from different geographies to participate as a team, thus increasing collaboration between diverse cultures. Several digital games are also designed to make games accessible to users with disabilities. For example, the availability of accessibility controllers has brought video to life for a number of visually impaired persons.<sup>283</sup>

Game & its developer	Method of playing
<u><i>Dice World</i></u> by AppleVis <sup>284</sup>	Voice-over reading for all buttons to give access to the visually impaired.
<u><i>Eyes First Games</i></u> By Microsoft	Microsoft developed <i>Tile Slide Puzzle</i> , <i>Match Two</i> , <i>Double Up</i> , and <i>Maze</i> where eye motions can substitute the working of the hands. Its Windows 10 eye-tracking APIs powers these games, a key accessibility feature for people with speech and mobility disabilities. <sup>285</sup>
<u><i>Audio Wizards</i></u> by myTrueSound <sup>286</sup>	The game is entirely based on audio cues which allow a visually impaired person to enjoy the game through a deep and clear narrative.
<u><i>Accessibility Controller</i></u> by Xbox <sup>287</sup>	The accessibility controller helps an amputee to map the keyboard. It allows the users to control the device through other means such as blowing or screaming at the controller.
<u><i>DOOM 2016</i></u> by id Software	The game adds colour-filters to help players suffering from impaired colour vision see and experience the gameplay with less strain and confusion.

#### Key takeaway

Digital games are played by everyone – the young, the middle aged and the old. Moreover, several women are now daily active gamers. Today, there are games that appeal to all audiences including those with disabilities. Thus, the digital gaming industry is fast evolving to welcome people from all walks of life.

### DIGITAL GAMING AS A PROFESSION

Digital gaming as a professional career is a hard sell to most people. The gaming industry can however be a lucrative career option for people with the right skillset. Esports players can earn steady incomes through competitive gaming. Other than the players themselves, several allied professions emerge in the industry. This is true for each segment, be it fantasy sports with experts, mentors, and statisticians or other e-competitions with live streamers and tournament organisers.

#### Esports as a professional sport

With tournaments, coaches, professional training and prize money, esports have all the attributes that define conventional sport like cricket, basketball or football.<sup>288</sup> The table below illustrates this further.

Professional sport characteristics	How esports fare
<u><i>Teamwork and cooperation among players</i></u>	Most competitive esports have specific roles designated for each player and rely on teamwork. <i>Counter Strike: Global Offensive (CS:GO)</i> and <i>DOTA 2</i> have different positions much like football or cricket, which require coordination and cooperation. <sup>289</sup>
<u><i>Association by mutual understanding</i></u>	Esports need institutionalised norms and consensus on the rules of the game. <sup>290</sup> Esports are played as per the governing rules of the game (such as member eligibility/roster formation) within the game interface. <sup>291</sup>
<u><i>International Federation</i></u>	The World Esports Association (WESA), the Global Esports Federation (GeSF) and the International Esports Federation (IeSF) govern esports globally. <sup>292</sup>
<u><i>Motor and cognitive skills</i></u>	Most esports require hand-eye coordination, concentration, and motor and cognitive skills. <sup>293</sup> Athletes can achieve up to 400 movements on the keyboard and mouse per minute. <sup>294</sup> Esports such as <i>World of Warcraft</i> and <i>DOTA 2</i> require thinking, in-depth analysis and strategic ingenuity. <sup>295</sup>
<u><i>Training</i></u>	Professional esports athletes need rigorous training for 10-11 hours a day. <sup>296</sup>

<u>Coaches</u>	Esports have professional coaches for all teams that play competitively. <sup>297</sup>
<u>Diet and routine</u>	Esports athletes need to maintain strict diets and exercise routines. <sup>298</sup>
<u>International tournaments</u>	Esports host several tournaments like The International ( <i>DOTA 2</i> ), Intel Extreme Masters ( <i>Starcraft II</i> and <i>CS:GO</i> ), Fortnite World Cup ( <i>Fortnite</i> ) and Overwatch World Cup ( <i>Overwatch</i> ) that has global participation.
<u>Viewership</u>	Esports had a viewership of 380 million in 2018 and is expected to grow to 557 million by 2021, only behind National Football League (“ <b>NFL</b> ”) in global viewership. <sup>299</sup> In comparison, major cricket and tennis events have been reported to have television viewership of 706 million and 900 million, respectively. <sup>300</sup>
<u>Prize money</u>	The prize money (USD 15.6 million) earned by the winning team at ‘The International’ 2019, the annual <i>DOTA</i> championship, was 5 times more than what current Wimbledon champions Novak Djokovic and Simona Halep took home. <sup>301</sup> Prize money for some esports tournaments for <i>Fortnite</i> , <i>League of Legends</i> , and <i>Call of Duty</i> has crossed USD 3 million mark. <sup>302</sup> In India alone, the total prize money for esports tournaments like ESL One, DreamHack, COBX Masters for esports like <i>PUBG</i> , <i>CS:GO</i> and <i>DOTA</i> has crossed the USD 1 million mark. <sup>303</sup>

### Esports are getting recognition worldwide

Several countries, including China,<sup>304</sup> Germany,<sup>305</sup> South Korea,<sup>306</sup> the US<sup>307</sup> and France,<sup>308</sup> recognise esports as professional sport. These governments also have dedicated departments/associations for esports.<sup>309</sup> International sporting associations like the International Olympic Council (“**IOC**”) are increasingly viewing esports as professional sport. The IOC had previously considered including esports as a demonstration event at the Tokyo Olympics in 2020,<sup>310</sup> and has previously even explored the possibility of including esports in the 2024 Olympics as a medal event.<sup>311</sup> Esports were an official demonstration event at the Asian Games (2018)<sup>312</sup> and a medal event at the South-East Asian Games (2019)<sup>313</sup>.

### Esports can be a steady and well-paying career

Much like a conventional career, professional gamers carry out cognitively challenging and stimulating work, earn a fair and steady income, and need practice and training. A professional gamer in India can earn upto INR 45000 per month.<sup>314</sup> The earnings of some esports players are comparable to those of high-ranking cricketers like Virat Kohli and Rohit Sharma who earn approximately INR 7 crore per annum.<sup>315</sup> For reference, Johan Sundstein (Denmark) and Jesse Vainiakka (Finland) are both *DOTA 2* players who have earned a total of between USD 6-7 million in earnings from winnings.<sup>316</sup> In the US, gaming companies paid their employees an average salary of USD 300,000 in 2018.<sup>317</sup>

### Allied professions in esports

Several allied professions have emerged within the esports industry offering steady incomes.

Allied Profession	Average Earnings <sup>318</sup>
<u>Commentators</u>	USD 59,600 to USD 60,000 per annum for an experienced commentator.
<u>Journalists</u>	Up to USD 21,600 on an annual basis. USD 108 per article and around USD 325 for lengthier pieces for experienced journalists.
<u>Coaches</u>	Up to USD 34,680 per year for a tier 1 team. USD 108 to USD 162 per month for tier 2 teams.
<u>Event Management</u>	Up to USD 86,700 for experienced managers with a range of USD 17,340 to USD 32,515 for others.
<u>Live Streamers</u>	USD 2,000 a month for streamers with 2,000 regular viewers. <sup>319</sup> Top streamers on Twitch (a live game streaming platform) earn USD 1-5 million per annum. <sup>320</sup> Most live streamers attract 15000 viewership at once and can command between USD 25000 and USD 35000 an hour during a big launch with more popular ones earning more. <sup>321</sup>

## Fantasy sports

Millions of sports enthusiasts engage with fantasy sports. The sheer number of users on a fantasy sports platform makes the entire experience competitive. A fantasy sports team can involve various permutations and combinations. Users are often bound by the rules of the fantasy platform and are given limited credits to build their team. Hence, users are constantly looking for ways to build a better team than other users. To this end, various fantasy sports content platforms and content creators have emerged in the fantasy sports industry that help keep the users informed and prepare them to build the most ideal team.

<p>“One cannot earn a livelihood from participation in fantasy sports. Users typically engage with fantasy sports for ‘bragging rights’ – to brag to their friends and peers by defeating them in competitive matches and most certainly to engage with the sports they love. We believe this promotes healthy competition.”</p> <p>- <b>Kiran Vivekananda, Chief Policy Officer, Dream11</b></p>	
Allied profession	Description and examples
<p><u>Experts and mentors</u></p> <p>Help users in the selection of players, team composition, and how many teams to register in a match</p>	<p>The FanCode app is among the most popular apps for fantasy sports research. It features various mentors who give tips to users for fantasy cricket, football, basketball, etc.<sup>322</sup> Apart from that, there are more than 500 applications, websites, and YouTube channels available in India that provide research and tips to users for preparing fantasy teams on platforms like Dream11, My11Circle, NostraGamus, HalaPlay, etc.<sup>323</sup></p>
<p><u>Statisticians and data analysts</u></p> <p>Give recent stats and sports data to keep the users informed</p>	<p>Various websites and sports portals employ statisticians and analysts to compile stats, analyze player patterns, and keep a track of team standings. Because fantasy sports users want the latest news on specific players and trends, demand for statisticians and analysts has increased.<sup>324</sup> Platforms such as Cricbuzz, FanCode, ESPN Cricinfo and Sportskeeda have dedicated portals that cover statistics and data on the past performances of sports players.</p>
<p><u>Content creators</u></p> <p>Prepare match previews and post-match analysis</p>	<p>Users benefit immensely from reading about the pitch/ground report, weather conditions, news on injured players, and the list of participating players in the match before drafting their fantasy team. Articles and videos covering post-match analysis also help users to reflect on their fantasy team selection. During the 2018 and 2019 IPL season, My11Circle (through Cricbuzz) and FanCode regularly gave pre-match and post-match analysis of all the IPL matches on their platform.<sup>325</sup></p>
<p><u>Authors and academic writers</u></p> <p>Write on the principles and fundamentals of building a fantasy team</p>	<p>Similar to the books on fundamentals of the stock market, various authors and writers have released books on the principles of selecting a fantasy sports team. There are books (including e-books) available on leading e-commerce sites on how to build a fantasy team on Dream11.<sup>326</sup></p>

## Other e-competitions

E-competitions involve skill. Card games such as poker and rummy involve several strategies and methods of play, including calculating the opponents’ move. Other games require hand-eye coordination, reflexes, and motor skills. Some players constantly look out for expert advice on strategies, tricks, and practice routines to improve their performance in the game. A number of users also engage with these e-competitions for their entertainment and recreational value. Various allied professions have emerged for players, users, and enthusiasts.

Allied professions	Description and examples
<p><u>Experts and mentors</u></p> <p>Explain the rules of the game and share tips on how to perform better</p>	<p>As other e-competitions require considerable practice and knowledge about the rules of the game, users seek the help of experts to excel at the game. This has led to the emergence of tutors and game experts in the field. PokerStars runs the ‘PokerStars School’ website to teach both beginners and advanced users all the tricks, strategies and rules to play poker.<sup>327</sup> Passion Rummy has several videos on tricks and strategies on its YouTube channel. Rummy Circle has a separate ‘how to play’ section on its app and also provides users with various strategies to play the game. For rummy, there are various tutorial videos on YouTube from Octro and Taj Rummy that explain the rules and tips to play rummy. Mobile Premier League organizes various audio and video shows where experts give tips to users on how to score more points on the Mobile Premier League app.</p>

<p><u><i>Live streamers</i></u></p> <p>Upload videos of live matches</p>	<p>Live streams cater to those users who are interested in watching others play and learn from their strategies. Many companies also use it as an engagement tool. PokerStars and Poker Baazi for instance has its own YouTube channel where it live streams poker and rummy matches.<sup>328</sup> Moreover, apps like Omlet Arcade by Octro enable people to live stream card games like rummy.<sup>329</sup></p>
<p><u><i>Tournament organizers</i></u></p> <p>Help in organizing regional and national competitions for users</p>	<p>Companies like Rummy Circle organize the ‘Grand Rummy Championship’ event in Goa.<sup>330</sup> Adda52 also organizes the Indian Rummy Challenge periodically.<sup>331</sup> Spartan Poker organises the India Poker Championship bi-annually.<sup>332</sup> Organizing such events requires Event Managers who can conduct such events.</p>
<p><u><i>Content creators</i></u></p> <p>Provide the latest news and trends on specific games</p>	<p>Users of other e-competitions look out for the latest news and trends related to the game. Popularity of these games attracts professional writers. Platforms like Taj Rummy cover the latest news, trends and updates on rummy on its blog.<sup>333</sup> Rummy Circle also covers updates and reviews of rummy in India.<sup>334</sup> Websites like Glaw.in also keep track of the recent legal and business developments in other e-competitions in different Indian states.</p>
<p><u><i>Authors and academic writers</i></u></p> <p>Write about playing strategies and legal developments</p>	<p>Game enthusiasts of other e-competitions are often interested in the theories, game history, and strategies used by players to play these games. Poker is taught as a course in many universities including Harvard, MIT, IIMs, and Indian School of Business.<sup>335</sup> There are thousands of books available online that discuss the thinking strategies, gameplay methods, and the terminologies used in playing card games.<sup>336</sup></p>

#### **Key takeaway**

Digital gaming has gradually emerged as a profession. This is particularly true of esports and other e-competitions. Esports has the potential to offer regular income, intellectual stimulation and stability – much like a conventional job. The increasing emergence of esports in the international sporting arena has also changed notions around playing for recreation versus playing professionally. Players participate in tournaments and win big money, much like any conventional sport. Several allied professions have emerged alongside esports and e-competitions to enhance a user’s gaming experience.

## CHAPTER 3

### LEGAL CHALLENGES IN THE DIGITAL GAMES AND SPORTS INDUSTRY

India needs to revamp its archaic laws to create a regulatory environment conducive to innovation.

#### Skill vs. Chance

Each state has its own law on gambling, leading to multiplicity and uncertainty of regulations. According to the Supreme Court, only predominantly chance-based games are 'gambling'. Games such as rummy, poker, and fantasy sports have been adjudged as 'games of skill' by some courts.

##### Issue

##### Recommendation

The interchangeable use of 'wagering' 'betting' and 'gaming' under state gambling laws is confusing.



All state laws should only use 'gambling' to prohibit chance-based activities.

Ban on 'games of skill' in some states creates inconsistency.



Exclude 'games of skill' from all state gambling laws.

States and their respective High Courts lack consensus while identifying 'games of skill'.



Introduce a central law on 'games of skill'. An industry association must be empowered to identify 'games of skill' after applying uniform mathematical tests.

The Prize Competition Act 1955 together with state gambling laws creates inconsistency.



Repeal the Prize Competition Act 1955.

#### Taxation

Tax laws treat skill and chance games similarly creating confusion and disincentivising skill-gaming platforms.

##### Issue

##### Recommendation

Platforms pay GST on both the entry fee and the service charge.



Clarify that GST is payable only on the service charge.

Skill games are treated as 'gambling' for GST purposes.



Clarify that skill games will be treated as 'other online content' for GST.

Income tax rate on winnings from skill games is at par with chance games.



Provide a lower tax rate for winnings earned from skill games.

It is unclear whether deductions are allowed on winnings from skill games.



Clarify that deductions are allowed on winnings from skill games.

## Intellectual property rights

IP laws do not match the pace of innovation in the digital gaming industry.

### Issue

### Recommendation

Inequitable sharing of revenue and royalties with game developers.



Recognize creators of computer-generated artistic, literary, or musical works as 'authors' under copyright law, thus entitled to royalties.

Esports publishers exercise control over their gaming IP.



Have a fair licensing regime for broadcasting digital games.

Lack of patentability for digital games.



Clarify that playing methods that satisfy patentability requirements may qualify as patentable inventions.

## Content regulation

Censorship threats to digital gaming content hinders free speech.

### Issue

### Recommendation

Risk of arbitrary bans on digital gaming content.



Allow companies to make representation before censoring digital games.

No specific rating system for digital games.



Create a self-regulatory code that adopts a uniform rating system.

## Add-on content

Gambling laws inhibit unique revenue models for digital games.

### Issue

### Recommendation

Definition of 'gambling' under state laws may prohibit loot boxes.



Clarify that virtual items from loot boxes do not qualify as rewards under state gambling laws.

Easy access to loot boxes may harm vulnerable groups.



Add content indicators while offering games with loot boxes.

## CHAPTER 3

### LEGAL CHALLENGES IN THE DIGITAL GAMES AND SPORTS INDUSTRY

Legal challenges in the gaming industry are unique for two reasons. First, is the presence of archaic laws that have convoluted the regulation of skill-based and chance-based games. Every company runs the risk of breaching anti-gambling laws, and hence this issue affects each category equally. Second, it is the pace at which innovations and new business models have emerged. Every category has a unique structure and way to monetize its activity, which creates distinct issues. All four categories currently deal with the following legal issues.

<u>Fantasy sports</u>	<u>Esports</u>	<u>Casual games</u>	<u>Other e-competitions</u>
Skill v/s chance Taxation IPR	IPR Free speech Add-on content	IPR Free speech Add-on content	Skill v/s chance Taxation IPR Free speech Add-on content
<p>“There needs to be a body which can clearly say that these are the policies and regulations gaming companies must adhere to. When these issues are addressed through formal processes, it will increase people’s confidence in the future of India’s gaming market. Today, people have questions on the back of their mind- ‘what happens if everyone goes the Telangana way’, ‘what happens if online advertising for card games is stopped’. Another example is how online advertisement platforms allow only rummy, and no other real-money games, to be advertised. Such rules can give an unfair advantage to some gaming businesses over others.”</p> <p style="text-align: center;">- <b>Saurabh Aggarwal, Founder, Octro Inc.</b></p>			
<p>“The industry will benefit from clarity on the aspects of skill v. chance as well as GST. Government should create a broad framework that enables industry self-regulation. There are a number of small and nascent gaming companies in the market currently that may not be able to flourish and innovate amidst stringent government regulations.”</p> <p style="text-align: center;">- <b>Manish Agarwal, CEO, Nazara Games</b></p>			
<p>“The main problem is that there is no law on gaming, and the closest we can come to a law is a gambling act from the 1900s. With investors, we have to tackle the perception that India does not have modern laws to deal with modern industry. We need a uniform policy to tackle this.”</p> <p style="text-align: center;">- <b>Dibyoyoti Mainak, General Counsel, Mobile Premier League</b></p>			
<p>“Many gaming companies and start-ups approach us with unique and unconventional business models. Although, the lack of regulatory clarity has left businesses guarded often killing innovation and growth. Businesses find it difficult to navigate through changing laws. A central and uniform law will go a long way to build a strong gaming ecosystem in the country.”</p> <p style="text-align: center;">- <b>Aparajita Srivastava, Partner (Regulatory), Ikigai Law</b></p>			

#### SKILL VERSUS CHANCE

Betting and gambling are illegal in India with exceptions in some states.<sup>337</sup> Constitutionally, only state governments can make laws on “betting and gambling”.<sup>338</sup> However, an inconsistent use of terms and the absence of a specific law on games of skill have intertwined the regulation of games of skill with games of chance in most states.

Generally, the dominance of skill over chance decides whether it is a game of skill or not. Games of skill are excluded from most gambling laws. However, states differ considerably in their understanding of games of skill and consequent exclusion from gambling laws. This leads to confusion and puts the industry in a dilemma. It is difficult for companies to rehash online models to suit distinct state regulations, which results in loss of efficiency and business opportunity. All digital games and sports are equally affected by this issue; in particular, fantasy sports, casual games, and other e-competitions, where users have a pay-to-play option.

This section examines the current law on games of skill and discusses key issues.

#### APPLICABLE LAW

Today, there are broadly 2 (two) regulatory models in India. On the one hand, more than 14 states and union territories have adopted the Public Gambling Act 1867 (“**PGA 1867**”),<sup>339</sup> while on the other, some states have developed their own frameworks (collectively “**State Gambling Laws**”).<sup>340</sup>

<b>The Public Gambling Act 1867</b>		
<i>Explicit exclusion for games of skill</i>	<i>Relevant definitions and law in the state</i>	<i>Proof of playing with money</i>
Exclusion for games of mere skill. <sup>341</sup>	“Gambling”, “gaming”, or “games of mere skill” are not defined. The Supreme Court has interpreted “games of mere skill” as games where success predominantly (i.e. more than 50%) depends on the skill of the player, as opposed to chance. <sup>342</sup>	Not necessary <sup>343</sup>
<b>The Telangana Gaming Act 1974</b>		
None.	“Gambling” is not defined. “Gaming” is prohibited and is defined to include an act of risking money on a game of skill. <sup>344</sup>	Necessary <sup>345</sup>
<b>The Orissa Prevention of Gambling Act 1955</b>		
None.	“Gambling” and “gaming” are used interchangeably and mean a game (including betting and wagering) by which a person exposes money to the risk of loss by chance. <sup>346</sup>	Not necessary <sup>347</sup>
<b>The Assam Game and Betting Act 1970</b>		
None.	Both “gambling” and “gaming” are not defined. A “bet” is defined as any money staked by a person to be lost or won on the happening of an unascertained thing. <sup>348</sup>	Not necessary <sup>349</sup>
<b>The Sikkim Online Gaming (Regulation) Act 2008</b>		
None.	“Gambling” and “gaming” are not defined. “Online games” include both games of skill and games of chance Licensees can offer online games in their physical premises in the state through intranet gaming terminals.	Necessary <sup>350</sup>
<b>The Nagaland Prohibition of Gambling and Promotion and Regulation of Online Games of Skill Act 2015</b>		
Games of skill are excluded from gambling.	“Gambling” means betting on games of chance. <sup>351</sup> “Games of skill” mean games where there is a preponderance of skill over chance. <sup>352</sup> The act allows licensees to operate in other states where their offered games are considered games of skill. <sup>353</sup>	Not necessary <sup>354</sup>
<b>The Andhra Pradesh Gaming (Amendment) Ordinance 2020</b>		
None.	“Gaming” means playing a game for winnings or prizes in money or otherwise on the result of a game or an event including on a ‘game of skill’.	Not necessary.

### **The Prize Competitions Act 1955**

The Prize Competition Act 1955 (“**PCA 1955**”) is a central legislation and has been adopted by certain states.<sup>355</sup> It regulates “prize competitions” that are games based on chance.<sup>356</sup> Organisation of prize competitions requires a license and the prizes cannot exceed INR 1000.<sup>357</sup>

### **ISSUES AND ANALYSIS**

#### **Ambiguity from using terms interchangeably**

Gambling statutes of different states use inconsistent and interchangeable terms that lead to confusion. For instance, the PGA 1867 makes it an offence to operate or be found in a “common *gaming* house”; the Assam Game and Betting Act 1970 penalizes a “betting” activity; while the Orissa Prevention of Gambling Act 1955 uses “gambling” and “gaming” to mean the same thing. Each of these terms has a distinct meaning and such interchangeable use creates regulatory uncertainty.

“Gaming” is an umbrella term and includes both games of chance and games of skill.<sup>358</sup> The outcome of “games of chance” or “gambling” predominantly depends on chance, as opposed to the skill of the player.<sup>359</sup> For instance, *teen patti* or *snakes and ladders*. On the other hand, the outcome of “games of skill” predominantly depends on the skill of the player, as opposed to chance,<sup>360</sup> for instance, *chess* and *rummy*. “Betting” or “wagering” means the act of staking money or anything of value on the outcome of a game, whether a game of skill or chance.<sup>361</sup>

The objective of most states should be to prohibit “gambling” or “games of chance”, as we discuss later. The use of “gaming” or similar terms obscures the extent of state power on the subject. Flowing from this confusion, companies and players of games of skill run the risk of being penalized for gambling by law enforcement agencies. Hence, no gambling statute should use the term “gaming” “betting” or “wagering” to prohibit or regulate chance-based or gambling activities.

### **Need for a central framework to regulate games of skill**

States are empowered to regulate only gambling and betting.<sup>362</sup> This power does not extend to games of skill for 2 (two) reasons. First, most of the gambling statutes exclude games of skill.<sup>363</sup> Second, a number of Supreme Court (“**SC**”) cases state that gambling only covers chance-based activities and specifically exclude games of skill.<sup>364</sup> Our Constitution framers empowered states to regulate gambling on moral grounds, an issue inapplicable to the games of skill.<sup>365</sup> Yet, some states have gone on to regulate games of skill. For instance, Odisha, Assam, Andhra Pradesh, and Telangana prohibit games of skill altogether with the games of chance.<sup>366</sup> Sikkim and Nagaland on the other hand allow games of skill, but require operators to seek a prior license.<sup>367</sup>

Even in states that exclude games of skill from their gambling statute, whether an activity is based on skill or chance is interpreted differently by each High Court (“**HC**”). HCs use the dominant factor test laid out by the SC to demarcate games between skill and chance.<sup>368</sup> Here, the dominating factor (skill or chance) of 51% in a game decides whether it is based on skill or chance. However, the application of this test has led to different outcomes by different HCs for the same game. For example, the Karnataka HC finds poker to be a game of skill based on bluffing and deception being the dominant skill-based elements.<sup>369</sup> On the other hand, the Gujarat HC finds poker to be a game of chance, finding bluffing and deception to be chance elements.<sup>370</sup>

As a result, the same game could be a game of skill in one state and a game of chance in another. This indirectly puts some games of skill within the state’s power (if they are declared as games of chance by the state’s HC).

Further, some HCs appear to depart from their underlying state statutes to hold some activities as gambling. Rummy for instance has been unarguably held as a game of skill by the SC and many HCs.<sup>371</sup> The PGA 1867, states that proof of playing a game with money is insignificant to constitute the offence of gambling. However, despite the adoption of the PGA 1867 in their states, the Madras HC and the Kerala HC treat playing rummy as gambling when played with money.<sup>372</sup> A recent Kerala HC case states that this issue will be decided on a case-to-case basis.<sup>373</sup> This creates a problem for rummy operators as courts deviate from the strict interpretation of the law. Without the state law specifying playing rummy for stakes is prohibited, it should not be treated as gambling.<sup>374</sup>

To avoid these issues, games of skill should be governed through a central law. This can be brought into effect in 2 (two) ways. First, is by amending List I (Union List) of Schedule 7 in the Constitution and introducing ‘games of skill’ as a union entry. Alternatively, for online games, a central law can be passed under Entry 31 of List I that relates wireless, broadcasting, and like forms of communication. The Sports (Online Gaming and Prevention of Fraud) Bill 2018, proposes a central law for online skill games, which the Law Commission of India has also recommended.<sup>375</sup> In either scenario, the central law can empower an industry association to periodically issue a list of games that are identified as ‘games of skill’ pan-India. Each state should adhere to this list and not classify these games as gambling whether played with or without money. This list can be prepared by a panel of experts such as jurists, lawyers, policy makers, and data scientists by applying the dominant factor test using mathematical tools and data analysis. The panel should also have representation from self-regulated associations representing each gaming category to address nuances attached to each game genre. A central framework will bring clarity and avoid conflicting statuses of games across India.

### **Studying different models**

The lack of a central framework affects all games of skill. However, some categories of games of skill are most played in India and consequently have unique issues of their own. In this section, we demonstrate how fantasy sports, rummy and poker are games of skill despite certain unfavourable judgements on their legality.

#### *Fantasy sports is a game of skill*

Fantasy sports have boomed in India on the back of a series of favourable judgements by HCs and subsequent dismissal of Special Leave Petitions (“**SLPs**”) in the SC filed against fantasy sports operators. It is pertinent to note that the SC has also issued a standing order to not revisit the issue as to whether fantasy sports is gambling or not. A recent SC stay of operation of the judgment and order passed by the Bombay HC on Goods and Services Tax (“**GST**”) is however a setback. Here, we discuss how the fantasy sports are played and demonstrate how they are skill-based.

*How are they played?* Fantasy sports are an extension of a sports enthusiast’s engagement with a traditional sport. Typically, a user prepares a virtual team of players scheduled to play in a real-world sport of cricket, football, basketball, etc. Each user builds her own unique virtual team and lists it on the platform. Based on the statistical performance of each real-world player, the user with the most ideal team wins.

*Status of fantasy sports in India:* The gambling law in Nagaland explicitly states that fantasy sports are games of skill. Fantasy sports are games of skill in Maharashtra, Punjab, Haryana and Rajasthan. Various HCs have identified elements of skill in fantasy sports. SLP filed against these decisions before the SC were also dismissed summarily, which further strengthens their status as games of skill.<sup>376</sup> More recently, the Rajasthan High Court held that a fantasy sports user performs a role similar to that of a real-life team manager, and requires substantial knowledge, strategy, skill, and adroitness to excel.<sup>377</sup> A study by IIM-Bangalore and Cartesian in 2019 proved that fantasy sports (Dream11’s format in the instant case) is based on strategic and dominant skill using data

hypotheses. The study analysed that selection of players requires skilful assessment of their past performance and randomly selected players only lead to lower scores.<sup>378</sup> More recently, on August 2020, researchers from MIT and Columbia University demonstrated that selection of players in fantasy sports requires more skill than selection of mutual fund schemes. The study tested data from fantasy sports platforms (between 2013 and 2016) and various mutual funds (between 2005 and 2018) for its hypotheses and made use of over 16 million data points for its study.<sup>379</sup>

*Status of fantasy sports in other jurisdictions:* Fantasy sports is identified as a game of skill in the US,<sup>380</sup> Australia,<sup>381</sup> UK,<sup>382</sup> Singapore,<sup>383</sup> Brazil,<sup>384</sup> and certain countries in the European Union.<sup>385</sup> In a case against FanDuel in the US, a court found that the win rate of top performers in fantasy sports is higher than average performers by 28%.<sup>386</sup> This was concluded after analysing the performance of players over a period of several months. A number of studies have used hypotheses tests, probability calculations, and statistical analysis to conclude that performance in fantasy sports is skill-dominant.<sup>387</sup> Research has found evidence of learning, consistency, and strategy-based usage - all of which affect payoffs in fantasy sports. There is little to no evidence of randomness or chance.<sup>388</sup> This goes on to prove that the player's performance should be persistent in fantasy sports and does not depend on chance factors in a single match. Performance standards may vary from time to time, but the performance overall shows an upward trend over multiple rounds.<sup>389</sup>

Elements of skill in fantasy sports <sup>390</sup>		
Preparing a balanced team with the limited number of in-game credits. <sup>391</sup>	Comparing and evaluating the worth of players on an objective basis.	Knowledge of the underlying real-world sport.
Analysis and assessment of the impact of extraneous conditions like pitch, weather, importance of the match for both teams, etc. <sup>392</sup>	Tracking the past-performance and statistics relevant to the players.	Understanding of the point system of the relevant fantasy sport.

*Poker as a game of skill*

Many states have excluded poker from their state gambling laws, deeming it to be a game of skill. Some HCs identify elements of skill in the game, but others find the same elements to be those of chance. It is difficult for states to follow a common precedent in the absence of a Supreme Court ruling.

*How is it played?* It is a card game in which players wager over which hand is the best based on the game's rules and a pre-determined ranking of cards.

*Status of poker in India:* West Bengal, Nagaland, Sikkim and Meghalaya consider poker to be a game of skill, by explicitly excluding poker from their state gambling legislation.<sup>393</sup> In addition, various courts, including the Karnataka HC, have identified that poker requires various skills such as memorising cards, ability to read the body language of the opponent, ingenuity to drop or hold cards, and ability to bluff without detection.<sup>394</sup>

*Status of poker in foreign jurisdictions:* Poker is identified as a game of skill in the US,<sup>395</sup> Australia,<sup>396</sup> Austria,<sup>397</sup> Russia,<sup>398</sup> Sweden,<sup>399</sup> and Ireland.<sup>400</sup> Further, an empirical statistical analysis of millions of poker players revealed that the player's decision alone accounted for the result in 76% of all the hands played rather than it being dependent on randomness of the cards dealt.<sup>401</sup> Economists have similarly analysed the statistics and average winnings of skilled and unskilled players who participated in the World Series of Poker. They concluded that 'highly skilled players' achieve an average return on investment of over 30%, compared to a (-) 15% for all other players.<sup>402</sup> Similarly, some experts have also proved how the element of luck can be minimised in poker by a combination of statistics and game theory.<sup>403</sup>

Elements of skill in poker <sup>404</sup>		
Ability to read opponent's body language.	Knowledge of the law of probabilities. <sup>405</sup>	Ingenuity and intuition in placing and raising bets. <sup>406</sup>
Strategizing and adapting as per the number and position of opponent players. <sup>407</sup>	Control over the game and management of money.	Ability to bluff without detection.

*Status of online poker:* The Gujarat HC has identified that poker has 2 (two stages): an initial distribution of cards and the element of betting based on the assessment of other players' body language.<sup>408</sup> It held that bluffing or deception could not be termed as a skill and would amount to an offence under the Indian Penal Code 1860. While the matter is currently in appeal, the court failed to see the other elements of skill present in poker.<sup>409</sup> Online poker requires some additional elements of skill. The most obvious of these is the speed at which online poker is played. Players are allowed to play multiple games at different tables at the same time which requires the skill of multi-tasking. There are also many different ways of playing online poker today. Rooms may have small, medium and large amounts of buy-ins. A player uses considerable skill in selecting the type of poker format that best suits her appetite and gameplay. Some US courts have also identified 'online poker' as a game of skill stating that "*the tells and styles in online poker include betting amounts, betting habits, speed and timing of bets and raises. Players must know when to hold and fold and raise. They must know how to manage their money.*"<sup>410</sup>

### Rummy as a game of skill

The legality of rummy is arguably settled in India. While most courts agree that it is a game of skill, playing rummy with money or for profit is treated as gambling in some states.

*How is it played?* Rummy is a card game in which players try to form valid sets and sequences with the cards they are dealt. The first player to build valid sets and sequences wins the game.

*Status of rummy in India:* Nagaland and West Bengal explicitly mention rummy as a game of skill under their gambling legislation. In addition, various courts in India including the SC have identified that rummy requires skill such as memorising cards, analysing the fall of the cards and building up of rummy, and ingenuity in holding and discarding cards.<sup>411</sup>

Elements of skill in rummy		
Memorizing the fall of cards and building up of the rummy.	Ability to hold and discard cards efficiently.	Understanding of the law of probabilities.
Recognize the playing patterns of opponent players.	Knowledge of various permutations and combinations.	

*Playing rummy with money does not constitute gambling:* The SC in the Satyanarayana case held that offering rummy for profit by an entity would amount to gambling. Flowing from this, some HCs have also held that playing rummy with money would amount to gambling.<sup>412</sup> However, in our view, the courts have erred in their reasoning. Both the SC and HC cases that held playing rummy with money as gambling were analysing the law applicable in states that follow the PGA 1867. These states were Andhra Pradesh, Tamil Nadu and Kerala. The gambling law in neither of these states provide an explicit prohibition on playing games of skill for money. In the absence of a specific provision, the treatment of rummy as gambling when played with stakes is unfounded and misplaced. A couple of HCs affirm this reasoning and hold that it is the duty of the state legislature to specify if playing a game of skill for money is prohibited. If not, the same cannot be treated as gambling.<sup>413</sup>

### **Inconsistent application of the Prize Competitions Act 1955**

The PCA 1955 governs prize competitions that are based on chance.<sup>414</sup> Similar to the PGA 1867, many states have adopted this act. Since the PGA 1867 is wide enough to cover all chance-based activities, the presence of PCA 1955 is unnecessary and problematic. The PCA 1955 allows a person to offer chance-based prize competitions in a state by way of a license.<sup>415</sup> This directly contradicts State Gambling Laws where there is an absolute bar on gambling. The PCA 1955 should hence be repealed as it is irrelevant and creates unnecessary confusion. The restrictions on entry fees are also archaic and no longer realistic.<sup>416</sup> In 2014, a committee constituted by the Prime Minister's office also recommended the repeal of PCA 1955.<sup>417</sup>

### **RECOMMENDATIONS**

As an immediate step, the following amendments should be made to all State Gambling Laws:

1. Each state should amend their gambling law and remove the words "gaming" "betting" or "wagering" (in all their grammatical variations) while prohibiting or regulating "gambling" or "games of chance". "Gambling" or "games of chance" should be used universally to regulate chance-based activities.
2. States that do not have a carve-out for games of skill in their gambling law should specifically state "*Nothing in this Act applies to games of skill wherever played*".
3. Each gambling law should insert a provision stating that proof of playing with money alone is insufficient to constitute gambling, and that this does not make playing a game of skill a gambling activity.
4. The PCA 1955 should be repealed in line with the recommendations of the Prime Minister's committee.

Alternatively, stakeholders could discuss a central framework for games of skill based on the following principles:

5. A central law should empower an industry association to come up with a list of games identified as 'games of skill'. The association should have representation from self-regulatory bodies of different game categories.
6. The list will be prepared by an expert committee of data scientists, mathematicians, statisticians, economists and lawyers and should be subject to periodic review.
7. Games of skill identified under the list should first be assessed as per the dominant skill test. The test should use objective statistics-based standards to determine the percentage of skill or chance present in a game.

## TAX ISSUES

The booming nature of the Indian gaming industry has brought new tax challenges to the fold. Innovation in gaming models has led to ambiguity around the indirect tax applicable to a gaming service. This is made worse by inconsistent, often arbitrary scrutiny from law enforcement agencies.<sup>418</sup> Similar issues plague direct tax laws, making users wary of participating in some types of digital games and sports. In this section, we identify the tax challenges the industry is posed with.

### APPLICABLE LAW

There are two types of tax relevant to a gaming business.<sup>419</sup> On one hand, companies pay indirect tax on the value of their services as well as direct tax on their business income. On the other hand, users pay direct tax on the amount of winnings earned from participating in games that give a cash prize.

Type of tax	Payable by	Payable on	Tax category	Exemptions
<u>Indirect tax in the form of GST</u>	The service provider	The value of service provided. <sup>420</sup>	Ambiguous categorisation. May be treated as gambling service, sports service or online content service. <sup>421</sup>	Actionable claims, <sup>422</sup> other than lottery, betting and gambling, are exempted. <sup>423</sup>
<u>Direct tax in the form of income tax</u>	The service recipients, <sup>424</sup>	Earnings from participation in games of skill. <sup>425</sup>	Treated as winnings from lottery and gambling. <sup>426</sup>	No exemptions or deductions allowed explicitly. <sup>427</sup>

### ISSUES AND ANALYSIS

#### Indirect tax implications

Companies face a dual uncertainty in matters of indirect tax. GST fails to separate games of skill from gambling activities. This creates ambiguity on the tax liability of different gaming operators. Moreover, information asymmetry between the industry, the tax department and state authorities also create confusion which leads to constant scrutiny of gaming platforms.

#### Value of service in digital skill games

Tax officials often confuse games of skill with gambling and attempt to disproportionately tax operators of games of skill.<sup>428</sup> Digital gamers typically pay an entry amount to game operators to play the game. This entry amount consists of two elements, an individual contribution to the overall prize pool (“**Pool**”), and a service fee charged for access to the gaming platform (“**Fee**”). Companies are entrusted with the Pool only for the duration of the game, since this amount is eventually distributed to the winners and taxed as income tax. It is only the Fee that companies charge for the supply of their services. However, tax officials often ask companies to pay GST on both the Pool and the Fee amount.<sup>429</sup> The Pool amount is however an actionable claim and should not be charged with any GST. The *Gardeep Singh* judgment affirmed this stance to hold that the Pool amount is an actionable claim falling outside the definition of supply.<sup>430</sup> Foreign jurisdictions, including some European Union (“**EU**”) countries, also follow this approach<sup>431</sup> by only taxing the gross gaming revenue (“**GGR**”) of companies. GGR reflects the difference between the Pool and the entry amount.

The rate of GST should also be relaxed for the operators of games of skill. A tax rate of 28% may be justified for gambling services as it acts as a deterrent for chance-based activities. A similar rate for games of skill however seems disproportionate and counter-productive. Regulators should promote participation in games of skill as they build various skills among users. The tax applicable on skill gaming platforms ranges between 5-10% in Australia and Portugal, a significantly lower rate than India.<sup>432</sup>

#### Classification of skill gaming services as gambling and betting

As noted earlier, the misclassification of games of skill as gambling or betting in GST translates into a higher tax effect. As discussed in the previous section, gambling laws do not cover games of skill.<sup>433</sup> Tax legislations, therefore, should follow the same principle and treat games of skill differently from games of chance.<sup>434</sup> Moreover, GST law already provides a more suitable category for games of skill. The “other online content” category in GST law includes internet games “*such as role-playing games (“**RPGs**”), strategy games, action games, card games, children’s games...*”, and therefore should include games of skill as well.<sup>435</sup> Unlike gambling which attracts a 28% GST, this classification is levied at the rate of 18%.<sup>436</sup> Therefore, the appropriate valuation of supply and accurate classification of games of skill will help to avoid friction between tax officials and operators.

#### Direct tax issues

Most users in India participate in skill-based games and earn income upon winning a particular competition. Winnings from games of skill however are taxed on par with games of chance under the Income Tax Act 1961.

### Grouping of digital skill games and chance-based games

At the time the Income Tax Act 1961 was envisaged,<sup>437</sup> Indian jurisprudence had not distinguished between games of skill and chance. This is why winnings from games is a single, monolithic category under the Income Tax Act 1961, covering everything from lotteries, card games, entertainment shows and horse races. All these vastly different kinds of games are taxed at the uniform rate of 30% (plus cess).<sup>438</sup> This is now an anachronistic provision, for a few reasons. Indian courts have held many of these games, such as fantasy sports and rummy, to be games of skill<sup>439</sup> meriting different treatment than games of chance.<sup>440</sup> Moreover, several foreign jurisdictions have a separate direct taxation structure for games of skill and chance.<sup>441</sup> Germany and Czech Republic even have a 0% tax rate on winnings from games of skill.<sup>442</sup> Games of skill rely on the judgement and knowledge of the player and therefore do not carry the risks or judgement associated with betting and gambling.<sup>443</sup> Differential tax treatment for games of skill will harmonise Indian tax law with gaming law jurisprudence.<sup>444</sup>

### No deductions allowed on entry-fee paid for participation

Deductions are typically allowed for all income heads under the Income Tax Act 1961, with the exception of winnings from games.<sup>445</sup> Similar to the discussion on classification above, deductions should be allowed for 'games of skill' since participants make active use of their time, energy, and skill while participating in 'games of skill' rather than passively earning from 'games of chance'.<sup>446</sup> Users also incur participation costs which merit deduction from the amount that is taxable.<sup>447</sup> While some stakeholders believe that deductions are allowed for 'games of skill', the Income Tax Act 1961 fails to specify this carve out explicitly. This gives unchecked discretion to tax authorities. Therefore, the Income Tax Act 1961 should make it clear that deductions and set-offs are permitted for 'games of skill'.

## RECOMMENDATIONS

### Indirect tax recommendations

1. Games of skill should not be taxed as per gambling and betting. Relevant changes should be made to the Central Goods and Service Tax Act 2017 ("CGST Act") to solve this issue.<sup>448</sup>
2. The services provided by operators of games of skill should be treated as services related to "other online content" under the CGST Act.<sup>449</sup>
3. Law enforcement agencies, such as the police, should be trained on the tax regime and latest legal developments for new digital technologies, including the gaming sector.<sup>450</sup>

### Direct tax recommendations

4. Section 2(24) of the Income Tax Act 1961 should be amended: A separate definition for income derived from games of skill should be added to the Income Tax Act 1961.<sup>451</sup>
5. Section 115BB of the Income Tax Act 1961, should be amended: Income derived from games of skill should attract a much-reduced rate of tax on the winnings than earned by an assessee from a game of chance.<sup>452</sup>
6. Section 58 (4) of the Income Tax Act 1961 should be amended to specify that deductions and set-offs are allowed for winnings from games of skill.<sup>453</sup>

## INTELLECTUAL PROPERTY RIGHTS

Different issues under the legal framework for intellectual property ("IP") rights affect digital games and sports. Overarching issues include the problem of digital games availing protection under the copyright and patent law, and the unequal sharing of revenue and royalties between gaming publishers and developers. Specifically, for esports, the current legal framework may allow abuse of IP rights which can result in anti-competitive practices in the esports industry. On the other hand, fantasy sports are affected by the framework for publicity rights. This section discusses key issues in IP rights prevalent in the industry.

### APPLICABLE LAW

ISSUE	RELEVANT LEGAL POSITION
<b>The Copyright Act 1967</b>	
<u>Classification</u>	Protects original literary, <sup>454</sup> artistic, <sup>455</sup> musical, <sup>456</sup> and dramatic works; <sup>457</sup> cinematographic films; <sup>458</sup> and sound recordings.
<u>Authorship and royalties</u>	<ul style="list-style-type: none"><li>• The creator of the work is the author unless the work is commissioned by another person, in which case the person who commissions the work is the copyright owner.<sup>459</sup></li><li>• In terms of computer-generated works, an author as the person who causes the work to be created.<sup>460</sup></li></ul>

	<ul style="list-style-type: none"> <li>• The author of a cinematograph film is its' producer.<sup>461</sup></li> <li>• Only copyright owners and authors can receive royalties.<sup>462</sup></li> </ul>
<u>Infringement</u>	<p>Copyright is not infringed when the use of the work is for 'fair dealing', private use, research, review, and others.<sup>463</sup> Copyright is infringed when a person, without / in violation of the license:<sup>464</sup></p> <ul style="list-style-type: none"> <li>• Performs actions that only the copyright owner is entitled to;<sup>465</sup></li> <li>• Allows showing of a copyrighted work to the public for profit;<sup>466</sup></li> <li>• Sells or rents copies of the work;<sup>467</sup></li> <li>• Imports the work into India.<sup>468</sup></li> </ul>
<b>The Patents Act 1970</b>	
<u>Patentability</u>	An invention is defined as a new product/process- i.e., not in production either in India or overseas- that has an inventive step <sup>469</sup> -i.e., providing advance technical knowledge or having economic significance- and is capable of industrial application. <sup>470</sup>
<u>Exclusion of inventions</u>	Patents for algorithms or computer programmes are not allowed ' <i>per se</i> '; <sup>471</sup> while patents for the 'mere' scheme/rule method of playing a game are also disallowed. <sup>472</sup>
<b>The Trademarks Act 1999</b>	
<u>Protection of trademark</u>	It sets out the legal framework for the protection and registration of trademarks.
<u>Fair use of trademark</u>	The use of trademark is not infringing if it is: (a) in accordance with honest market practices; and (b) use is not detrimental to the repute of the trademark or does not take unfair advantage of the trademark. <sup>473</sup>
<b>Publicity rights</b>	
<u>Commercial protection of identity</u>	These are a set of common-law <sup>474</sup> rights that rest in an individual's personality, covering their name, image, or likeness. These rights allow individuals to control the commercial usage of one's identity, name, image or likeness, and prevent it from misappropriation. <sup>475</sup>

## ISSUES AND ANALYSIS

### Lack of a specific classification for digital games

Digital games consist of two main parts: (i) audio-visual elements such as pictures, video, and sound; and (ii) software that manages the audio-visual elements and allows users to interact with the digital game.<sup>476</sup> In India, each of these different elements will enjoy copyright protection separately.<sup>477</sup> However, a digital game by itself cannot avail copyright protection under Indian law, as 'digital games' are not a separately classified category protected under Indian law. In other words, India follows a 'distributive classification' of copyright protection for digital games.<sup>478</sup>

Thus, it is hard to determine what aspects of a digital game can be protected under the Indian law. The lack of clarity has led to a significant rise in clone/copycat games and an increase in piracy.<sup>479</sup> As the line between creative expression and unprotectable ideas in digital games remains a blur,<sup>480</sup> it is easy for clones to copy the original content. For instance, the game *Angry Birds* saw numerous copycat/clone games (such as *Angry Rhinos*) which profited commercially on the success of the original.<sup>481</sup>

In the US, courts are likely to focus on the visual and aesthetic components of a game to determine which elements of a game can avail copyright law protection.<sup>482</sup> This is a problem as the majority of clones today are visually distinct, which makes it harder to prove that they are copied from an original game.<sup>483</sup> If the similarity between the clone and the original arises from the way they function and the way the user interacts with the game, then game publishers will be unable to protect their IP rights.<sup>484</sup> As such, a 'distributive classification' system, with each element protected separately, appears to promote protection of clones of original games, violating the IP rights of game publishers.

Also, a 'distributive classification' provides a variable and inconsistent standard of copyright protections, with separate elements of a digital game subject to separate standards of protection.<sup>485</sup> This makes it impractical for game publishers to pursue legal remedies in case of a copyright violation. An increase in the number of individual elements in digital games compounds this problem.<sup>486</sup>

In some countries, digital games are either classified as computer programs<sup>487</sup> or audio-visual works.<sup>488</sup> There are concerns with both these frameworks of classification too. The people who develop an audio-visual work (such as scriptwriters, directors and composers) are fundamentally different from those who help to create a digital game (such as animators, audio engineers and character designers).<sup>489</sup> Additionally, most digital games share the same gaming code,<sup>490</sup> making copyright protection for the game software redundant.

It is clear that all existing frameworks of classifying digital games are misaligned with the pace of the gaming industry and provide insufficient copyright protection. All frameworks- audio-visual, computer programs and distributive classification- suffer from infirmities that dilute the rights of game publishers. In this context, the World Intellectual Property Organization (“WIPO”) has highlighted the importance of developing a separate legal category of ‘video games’<sup>491</sup> for copyright protection. This will serve to protect game publishers’ interests by protecting digital games as a whole.

### **Inequitable sharing of revenue and royalties**

In India, the author of specific elements in a digital game is the person who causes the different underlying works to be created.<sup>492</sup> However, the Indian law is not very clear about who should be considered as the person who causes the work to be created. Would it be the original creator or the financier of the work?<sup>493</sup>

Multiple stakeholders contribute to the creation of a digital game, including the game publisher i.e. the financier, and the visual artists, programmers, sound engineer, level designers and testers (collectively “**game developers**”). However, setting up the value chain and the development process is the responsibility of the game publisher.<sup>494</sup> Despite the ambiguity over the game’s authorship, it typically vests with game publishers, even if the digital game includes creative contributions from game developers.<sup>495</sup> Consequently, game developers are unable to receive royalties, regardless of the commercial success of the game.<sup>496</sup>

On the other hand, European law is generally more protective of authors. For example, under German law, a person contracted for some work on commission can also become an author, unlike Indian law.<sup>497</sup> Authors in France are also entitled to claim royalties in proportion to the revenues generated from the work.<sup>498</sup>

The existing system in India, unlike Germany and France, does not guarantee fair revenue distribution. In case of a commercially successful game, there will be significant royalties and the lack of proper apportionment will prevent important stakeholders from sharing in the commercial success of the game. Amendments to the Copyright Act that guarantee fair compensation to game developers who have contributed significantly to the success of a digital game or have created sufficient original elements will ensure equitable sharing of revenue among all stakeholders.<sup>499</sup>

### **Anti-competitive impact through use of IP in esports**

As game publishers own the IPR for the entire game, they exercise wide-ranging control over its use in e-sports for various aspects such as players, teams, league structures, terms of tournaments and broadcasts.<sup>500</sup> On the other hand, tournament organizers, teams, players, broadcasters and fans need access to the game publishers’ IP to participate in e-sports markets.<sup>501</sup> This creates a power asymmetry between game publishers and tournament organizers, giving rise to competition concerns as game publishers lawfully deny access to specific esports markets created from the use of their games.

The use of digital games is determined through end-user licensing agreements (“**EULA**”).<sup>502</sup> The restrictive nature of EULAs impacts business opportunities for esports organizers, and limits innovation and competition in the nascent esports market. Restricting access to a digital game through its IP can constitute a barrier to entry for other players. This can happen in two ways- (a) where game publishers enter the e-sports markets themselves and broadcast their games,<sup>503</sup> or (b) where game publishers only allow particular broadcasters/organizers to use their game, while excluding others.<sup>504</sup> Both cases result in anti-trust issues, as game publishers with a good number of loyal players are able to prevent any ‘substitutes’ of their game from coming up in the market.

Another important question is that who enjoys proprietary rights to the game output- the game publisher or the game players?<sup>505</sup> Typically, game publishers limit the use of digital games by suppressing media coverage of games and dampening consumer creativity.<sup>506</sup> While EULAs dictate how the game is used in online videos and to stream gameplay, questions over ownership in these emerging contexts remain unanswered.<sup>507</sup> Further, as the behavior of in-game avatars created by players becomes more realistic, sophisticated and intelligent, the questions over the status of legal ownership of these player creations may give rise to a new type of ownership dispute.<sup>508</sup>

Existing IPR frameworks are not suited to deal with these issues. Rather, such IPR frameworks lead to a concentration of power with the game publishers.<sup>509</sup> In order to promote consumer welfare and increase market competition, game publishers should be restricted from abusing their IP rights, imposing unfair licensing conditions and restricting access to the game. One way of doing this is to develop a fair licensing regime for the broadcast of digital games, similar to statutory licenses. However, unlike statutory licenses, which do not apply in the context of internet broadcasting,<sup>510</sup> this framework should account for new internet streaming-based business models. For example, the USA passed the Music Modernization Act of 2018 to provide for a new legal regime to determine rights of royalty and broadcast in the internet streaming era in the music industry.<sup>511</sup> A similar legislation for the gaming industry may help address questions of licensing and broadcast of digital games in the context of esports.

## Violation of publicity rights in fantasy sports

Publicity rights are a broad nebulous set of rights that vest in the individual's personality. Largely, these vest with celebrities and limit the use of their name, personality, images, and likeness by allowing individuals to profit from the commercial value of their publicity.<sup>512</sup> The use of names of professional sports players and images (such as those in fantasy sports) also enjoy protection as publicity rights. Fantasy sports rely on the names of actual players and the facts emerging from actual matches to create a virtual contest between users. Issues arise due to the unlicensed use of this material by fantasy sports gaming companies. Navigating these issues can be challenging for fantasy sports companies as sports players may claim publicity rights, which is in addition to the licensing agreements between fantasy operators and sports federations representing the players.<sup>513</sup>

In India, courts have recognized personality rights and an individual's right to profit from it.<sup>514</sup> Yet, this is purely in the context of commercial usages of names and images, with no clear guidance emerging regarding the non-commercial use of names, facts or information. In the US, the use of player names, statistics and likenesses by for-profit fantasy sports game publishers is allowed as it is newsworthy, i.e. based on real-life facts.<sup>515</sup> These principles, in different forms, also form part of the laws of European countries.<sup>516</sup> For instance, in Germany, it is possible to use celebrities' images without permission for information or editorial purposes.<sup>517</sup> As long as the game does not suggest that the players are endorsing it, it is hard to prove a publicity right violation.

Fantasy sports use player names and images only for the purpose of identifying the players, while the use of statistics is a necessary consequence of such usage of facts.<sup>518</sup> In this context, it cannot be said that the use of names and images by game publishers qualifies as commercial use, or endorsement by players, or possibly damage the value of their identity.<sup>519</sup> Hence, it is important to limit publicity rights to allow the use of player names and images in fantasy sports. In this regard, looking at the right of publicity as a property right, analogous to trademark law, offers logical ways to limit it. Trademark cases tend to be decided either based on likelihood of confusion or on dilution grounds, and incorporate significant principles limiting trademark rights,<sup>520</sup> such as nominative fair use<sup>521</sup> or disruptive fair use.<sup>522</sup> Revising the right of publicity to include similar limits as used in trademark law will help avoid the abuse of the right to publicity, and put it on a more solid conceptual grounding.

## Unauthorised use of player likenesses in digital games

Publicity right disputes have also emerged for games that render realistic settings or involve fantasy settings but import real-world characters.<sup>523</sup> There are two sets of disputes that arise here- (a) games that use real life likenesses of celebrities in the context they are known for, such as Cristiano Ronaldo in *FIFA*; and, (b) the use of celebrity likenesses in fantasy games such as *Fallout*. These disputes have been costly for game publishers, causing long-drawn out expensive court battles.<sup>524</sup>

Such disputes will continue to arise as courts are unable to define what use of an individual's publicity right is immune from challenge. In the US, however, a use of a likeness that is 'transformative'<sup>525</sup> does not infringe their publicity right. For instance, where the game applied significant creative changes to the celebrity's likeness,<sup>526</sup> publicity rights claims have failed. On the other hand, publicity rights claims will be successful where the use is too similar to the actual likeness.<sup>527</sup> In India, however, the 'transformative use' test has been used only in the context of copyright disputes, where the unlicensed use of copyrighted work has been allowed if the use establishes 'minimum requirement of creativity', or makes an 'independent contribution' to the original work.<sup>528</sup>

Digital games using the likeness of real-life individuals and contexts add "new expression", are "transformative" or satisfy a "minimum requirement of creativity".<sup>529</sup> Defining clear legal criteria exempting the use of player likenesses in such contexts can enable game publishers to use celebrity likeness without suffering from costly litigations. In Indian law, such exemptions can be introduced in the provisions outlining a publicity right under the Trademarks Act. However, as publicity rights can also stem from a persons' right to privacy,<sup>530</sup> such exemptions would have to be balanced with India's forthcoming data protection law and our fundamental right to privacy.<sup>531</sup>

## Lack of patentability for games

Patents can offer protection to functions and processes within a game that are beyond the scope of copyright protection, such as gameplay methods, graphic techniques, and user interface, as long as it is established that these are novel, have an inventive step and industrial application.<sup>532</sup> However, Indian patent law provides that the 'mere' method of playing a game does not count as an invention, meaning that games, or the specific technology/processes within them, cannot be patented.<sup>533</sup>

On the other hand, in the US, patents in methods of playing a game have been allowed.<sup>534</sup> For instance, patents have been given for processes that allow adjustment in game elements based on the real-world location of the player,<sup>535</sup> relate to the use of a virtual currency in a poker game,<sup>536</sup> and for processes that help users drive cars with a highlighted target destination.<sup>537</sup>

Clearly, the methods or processes within a digital game can satisfy the patentability requirements of novelty, inventive step, and industrial applicability. This position has also been upheld by the US Supreme Court.<sup>538</sup> Digital games have immense macro income-generating potential, and are based on clear technological advancements. However, the bar on the patentability of the 'way of playing a game' under Indian patent law disallows game publishers from availing the beneficial IP protections offered by patents.

## RECOMMENDATIONS

1. Introduce a new provision in Indian copyright law to provide inherent authorship to the person who creates a computer generated artistic/literary/musical work.<sup>539</sup>
2. Develop a fair licensing regime for the internet broadcast of digital games,<sup>540</sup> whether classified as cinematographic works, literary works, artistic works or musical works.
3. Amend Indian trademark law to set out a ‘publicity right’, and exemptions against its infringement. The exemptions should allow use for newsworthy purposes, use that is ‘transformative’ or has sufficient creative expression, use that does not suggest endorsement, and use that only seeks to identify the person whose personality is being exploited.
4. Amend Indian patent law to clarify that the methods of playing a game that satisfy the patentability requirements qualify as inventions.<sup>541</sup>

## CONTENT REGULATION

A common allegation against the digital gaming industry is its use of content showing violence, gore, explicit sex and nudity, among other things.<sup>542</sup> Governments have banned such games because of the nature of their content, and their possible real-life impact on users. Some have argued to protect the artistic value of games, whereas few countries have upheld gaming content within freedom of speech and expression.<sup>543</sup> This section will discuss the issues involved in banning digital games, how they have been viewed under different laws and how this issue can be resolved.

### APPLICABLE LAW

Type of content	Acts prohibited under Indian law
<u>Sexually explicit and obscene content</u>	<ul style="list-style-type: none"> <li>• Publication, sale or distribution of any obscene object.<sup>544</sup></li> <li>• Indecent representation of women in any form such as a book, movie, pamphlet etc. However, any publication intended to promote science, art, literature, learning or ‘other objects of general concern’ is allowed.<sup>545</sup></li> <li>• Publication of material showing- (a) obscenity; (b) sexually explicit act/conduct, and (c) children in sexually explicit act, or showing children in an indecent/obscene/sexually explicit manner.<sup>546</sup></li> <li>• Using a child for sexual pleasure in any media form.<sup>547</sup></li> </ul> <p>For example, games showing nudity or sexually explicit acts, such as <i>Playboy: The Mansion</i> and <i>Heavy Rain</i>, may get banned under these provisions.</p>
<u>Content affecting caste and religious sentiments</u>	<ul style="list-style-type: none"> <li>• Promoting disharmony or feelings of enmity or hatred between different religious, racial, language or regional groups or castes or communities.<sup>548</sup></li> <li>• Insulting the religious beliefs of any community.<sup>549</sup></li> <li>• Any kind of visible representation which promotes a feeling of enmity or hatred against members of a scheduled caste or scheduled tribe.<sup>550</sup></li> </ul> <p>For example, <i>Overwatch</i> had depicted a character as a ‘sexualized’ version of the Hindu goddess Kali, to which objections were raised by a Hindu organization.<sup>551</sup> Such a game can be banned under these provisions</p>
<u>Depicting the national emblem or national flag in an improper manner</u>	<ul style="list-style-type: none"> <li>• Using certain national emblems or names for the purpose of any trade, business, calling or profession without the previous permission of the central government.<sup>552</sup></li> <li>• Causing any kind of disrespect by burning, defacing or destroying the national flag or Constitution of India.<sup>553</sup></li> </ul> <p>For example, a military-based game showing a foreign terrorist organization destroying the flag of India may get banned under these provisions.</p>
<u>Miscellaneous provisions</u>	<ul style="list-style-type: none"> <li>• Content defaming a known person.<sup>554</sup> For example, where a game shows a known political figure as doing something controversial.</li> <li>• Where the game contains seditious content, i.e. content that intends to incite any feeling of hatred or disaffection against the Indian government.<sup>555</sup> For example, a game which shows Indian soldiers as committing war crimes could possibly be considered to be seditious.</li> </ul>

## ISSUES AND ANALYSIS

### Censorship threats to digital gaming content

Banning digital games has an adverse economic impact on the industry.<sup>556</sup> Games are often ‘censored’ for the supposedly ‘extreme’ nature of their content. India does not have any specific law to prohibit or restrict content of digital games. Unlike movies or advertisements, there are no bodies that examine the ‘appropriateness’ of gaming content in India. However, the Indian government can exercise its powers to block certain types of electronic content to possibly ban digital games.<sup>557</sup>

Digital games can be protected as a fundamental right to freedom of speech and expression under the Indian Constitution.<sup>558</sup> Though Indian courts have not dealt with free speech issues in the context of digital games, the legal principles used to determine the ‘appropriateness’ of content in other media can also apply to digital games. Free speech rights under the Indian Constitution are applicable to print, electronic and internet-based media.<sup>559</sup> Even in the US, free speech protection for digital games is treated at par with books, plays and movies.<sup>560</sup> At the same time, the Constitution of India also empowers the government to ‘reasonably’ restrict content, which will include digital games, on grounds such as sovereignty and integrity of India, national security, public order, decency or morality.<sup>561</sup>

Violent content: In the US, digital games have been blamed for promoting violence and aggression.<sup>562</sup> For example, in August 2019, President Trump blamed video games for ‘glorification of violence’ while condemning a mass shooting incident in Texas.<sup>563</sup> Closer home, *PUBG* was banned in some districts in Gujarat for promoting ‘violent traits’ in children.<sup>564</sup> Multiple Public Interest Litigations (“PILs”) were filed in different high courts across India in relation to *PUBG*:

Relevant court	Status of PIL
Punjab and Haryana High Court	Dismissing the petition, the court directed the government to examine the concerns raised in the petition about the game. <sup>565</sup>
Bombay High Court	The court directed the Ministry of Electronics and Information Technology to review the contents of the game and issue necessary directions, if required. <sup>566</sup> The PIL had sought a ban on the game in all schools in Maharashtra.
Gujarat High Court	A PIL was filed challenging the Gujarat government’s ban on <i>PUBG</i> . However, this PIL was dismissed on the ground that it did not involve a matter of public interest. <sup>567</sup>

The Delhi Commission for Protection of Child Rights (“DCPCR”) had also released an advisory in February 2019 against violent video games that cause a ‘harmful, negative and adverse impact on the brain of children’.<sup>568</sup> The advisory covered *PUBG*, *Grand Theft Auto* series, *God of War* and even *Pokémon*.

However, the correlation between violent behavior and digital games is weak and mostly anecdotal. A review commissioned by the UK government in 2017 revealed that there is no evidence of any long-term aggression resulting from playing violent digital games.<sup>569</sup> Even the US Supreme Court had observed that any ‘demonstrated effects’ of the connection between violence in games and aggressive behaviour in children are ‘small and indistinguishable’ from the effects produced by other media.<sup>570</sup> As discussed in chapter 2, digital games can actually have the opposite effect on players, helping them cope with aggression and other mental health disorders. Some studies even indicate that popularity of digital games can be a possible cause for decreased crime rates in the US.<sup>571</sup>

Courts in India have allowed violent content to be shown in different media forms. In a case before the SC,<sup>572</sup> the petitioner sought a ban on a TV serial that showed communal violence. The SC held that the intention of showing violent content in this TV serial was to show the harms of communal violence and build communal harmony. The court observed that even an ‘average person’, including an illiterate person, would understand this specific context in which violence was shown in the TV serial. In a case before the Bombay HC,<sup>573</sup> the court had to examine the validity of censoring scenes showing drug dealers and corrupt policemen using violent and abusive language. The Bombay HC said that such content was relevant to the movie’s topic of drug abuse. Importantly, it noted that viewers must be presumed to have ‘minimal intelligence’ to distinguish fictional characters from those in real life. In both these cases, the courts allowed violent content to be displayed, holding that it was protected by the constitutional right to free speech.

The same logic applies when games like *PUBG* are banned in India. Just because these games allow players to fire weapons and kill people in simulated conditions, it does not mean that the players will replicate the behavior in real life. Gamers understand that these games are merely a form of entertainment, and that none of this is meant to be enacted in real life. Further, an arbitrary ban on a digital game solely based on its violent content will go against the free speech protection under the Indian Constitution. Importantly, depiction of violence is not a ground for prohibiting content under the Indian Constitution.<sup>574</sup>

Just because these games allow players to fire weapons and kill people in simulated conditions, it does not mean that the players will replicate the behaviour in real life.

*Sexually explicit and obscene content:* The use of sexual content and nudity varies across games, and so does the sensitivity of different jurisdictions towards such content. While some jurisdictions impose an outright ban, others restrict access through ratings. For instance, *Heavy Rain* was banned in the United Arab Emirates (“**UAE**”) for showing nudity.<sup>575</sup> Other jurisdictions such as the UK assign ratings such as ‘18+’ or ‘Mature’ to such games, and do not allow minors to play them.<sup>576</sup>

Digital games can be banned in India for showing sexually inappropriate content, though India has never imposed any such ban previously. However, Indian courts have allowed sexual content to be shown in other forms of media on several instances.

In a case before the SC,<sup>577</sup> the petitioner had contested the deletion of certain scenes in a movie which showed a female character being raped and then paraded naked in a village. The SC held that the scenes showing nudity conveyed the movie’s message about caste discrimination and violence against women. It held that such scenes cannot be said to appeal to any sexual desire or sexual interests of the audience, and do not qualify as ‘obscene’ under Indian criminal law.<sup>578</sup>

In another SC case from 2014,<sup>579</sup> the petitioner had sought censoring of a 1994 magazine photo showing nude/semi-nude pictures of the tennis player Boris Becker and his African-American fiancée. The picture was published as a message against apartheid and racism. The SC held that the objective of the image was not to appeal to the sexual urges of the audience, but to convey a social message. Additionally, the SC applied the ‘community standard’ test to say that the image should be viewed as per the societal standards of 2014 and not 1994 when the image was first published. It held that any work needs to be examined from the perspective of an average person, and not the sensitive sections of the society.

Based on the treatment of sexual content by Indian courts, digital games will not be banned in India solely on the ground of showing sex or nudity. For example, some digital games may show sexual content for educational purposes, or to contextualize the storyline of the game. However, where content is shown specifically to appeal to the audience’s sexual urges, it will not be entitled to free speech protection under Indian law.

*Political grounds:* Some games were banned because they were against a country’s political beliefs. China banned *Football Manager 2005* because it listed Tibet and Taiwan as independent countries.<sup>580</sup> Germany banned the game *Wolfenstein 3D* because it contained imagery and characters from Nazi Germany.<sup>581</sup>

However, Indian courts have provided free speech protection to political content as well. In 2018,<sup>582</sup> the petitioner had approached the SC to seek a stay on the release of Arvind Kejriwal’s documentary movie, ‘An Insignificant Man’. The petitioner had thrown ink on Aam Aadmi Party leaders in a public event, and had objected to his portrayal as a ‘convicted criminal’ in the documentary. However, the SC refused to stop the movie’s release. It mentioned that freedom of speech and expression is ‘sacrosanct’ and should not be ‘ordinarily interfered with’. The SC noted that this freedom includes the creative freedom of a person to express any kind of thought. In another case dealing with a movie,<sup>583</sup> the SC held that a story, play or novel that requires ‘innovation, skill, craftsmanship and... individual originality’ has an element of freedom of expression. The same principle applies to digital games.

Thus, the SC has upheld free speech protection to different forms of expression, despite the extremity of their content. As digital games are also one such form of expression, they should be protected as free speech in India.<sup>584</sup>

### **Lack of any ratings system for gaming content in India**

Under Indian law, the only remedy available against an arbitrary ban on a digital game is to approach a court and seek enforcement of free speech rights. However, a better solution for the government and industry would be something that can be done before the government passes a prohibition order. A self-regulatory mechanism that imposes a rating system for digital games in India can be one such solution. The US Supreme Court, in allowing sale of violent games to children, noted that a ratings system (along with parental controls) provides sufficient warning to gamers about the nature of content in a digital game.<sup>585</sup>

Many jurisdictions provide for a rating mechanism to make gamers aware about the nature of gaming content. For instance, the UK uses the Pan European Game Information (“**PEGI**”) system for rating digital games. The PEGI system was incorporated under English law in 2012, and its ratings are legally enforceable.<sup>586</sup> This means that it is illegal for a retailer in the UK to sell a PEGI 16 rated game to a 12-year old child. In the US, the Entertainment Software Rating Board (“**ESRB**”) assigns age ratings for digital games.<sup>587</sup> Both the PEGI and ESRB rating systems have been formulated by gaming industry bodies. The PEGI and ESRB ratings, along with ratings adopted by Australia, Brazil, South Korea and Germany, form part of a global ratings system administered by the International Age Rating Coalition (“**IARC**”).<sup>588</sup> The IARC ratings are currently used by Google Play Store for rating all its mobile applications.<sup>589</sup>

Considering that the cultural/ societal standards for ‘appropriate’ content in each country are different, India must have its own self-regulatory rating system for the gaming industry. India cannot follow the IARC system currently in place, or simply adopt an existing mechanism such as PEGI or ESRB. Each rating system treats different categories of content differently. To highlight such differences, we have compared the treatment of content in some jurisdictions around the world in the Annexure below.

A rating system for India must cater to India-specific requirements. For instance, both the PEGI and ESRB ratings do not look at the element of ‘religious sensitivity’ in a game, which is an important factor in the Indian context. Netflix also has a separate ratings

system for India, but it only has 4 categories- Kids (7+), Teens (13+) and Adults (16+ and 18+).<sup>590</sup> The Central Board of Film Certification (“**CBFC**”) also provides only four rating options: U (unrestricted for all age groups); A (adult, only for 18+ audience); U/A (12+ with parental guidance); and S (restricted to special classes). These ratings are assigned by the CBFC on a case-to-case basis as per the broad guidelines that deal with issues such as violence, sexual perversion, religious/communal contempt and nationality.<sup>591</sup> Additionally, CBFC’s rating system is a state-enforced rating mechanism, which has often courted controversy for its ‘moral policing’ in assigning movie ratings<sup>592</sup>. This can be solved for by having a self-regulatory mechanism, as opposed to a state-enforced mechanism.

In addition to a rating system, the gaming industry should also adopt a self-regulatory code to establish general principles and a grievance redressal process. The Advertising Standards Council of India (“**ASCI**”) is a good example of a self-regulatory system for advertisements in India. ASCI has a ‘Code of Advertising Practice’ that contains advertising guidelines and a grievance redressal mechanism. In 2006, the government made ASCI’s code legally binding for all advertisements.<sup>593</sup> The Internet and Mobile Association of India’s (“**IAMAI**”) self-regulatory code for online curated content providers is another example. It provides a rating system, a grievance redressal mechanism and a monetary penalty for violation of the code.<sup>594</sup> The IAMAI has recently proposed a new version of this self-regulatory code, which among other things, proposes a two-tier consumer grievance redressal process.<sup>595</sup> This is similar to the grievance redressal procedure given in the Indian Broadcasting Federation’s self-regulatory guidelines for non-news channels.<sup>596</sup>

## RECOMMENDATIONS

1. The government should develop a quasi-judicial mechanism wherein gaming companies are given the opportunity to make a representation before any ban on digital games is imposed.
2. The Indian gaming industry must also adopt a self-regulatory code, which includes an age rating system, grievance redressal mechanism and a set of general principles for the entire industry. The self-regulatory code annexed to this Report proposes guidelines on prohibited and age-appropriate content which the entire gaming industry can follow as a standard.

## ADD-ON CONTENT

The monetization of digital games has seen a paradigm shift in the past decade. Instead of the conventional lump-sum retail model, most gaming publishers today make money through ‘add-on’ content in games.<sup>597</sup> Add-on content means virtual items such as costumes, skins, weapons, avatars and customized maps that users can buy to improve game aesthetics or in-game performance, or to progress faster in a game. For instance, users can pay to buy an invincible weapon in *Call of Duty: Black Ops* or pay to play as “Darth Vader” in *Star Wars Battlefront II*. Such content is unique to each game and can be accessed or downloaded only through in-game purchases.<sup>598</sup> The add-on content industry is projected to cross USD 50 billion by 2022.<sup>599</sup>

A popular category of add-on content is a ‘loot box’. It is a virtual ‘box’ (often depicted as a package or chest) that rewards users with a ‘randomized virtual item’ i.e., the user does not know what is inside the loot box. Once purchased, users can open the loot box to get a surprise reward from the various categories of add-on content in a game. Many countries are examining whether loot boxes can violate gambling laws, as they combine the element of luck with the use of real money.<sup>600</sup>

In this section, we will discuss the legality of loot boxes under Indian laws.<sup>601</sup>

## APPLICABLE LAW

Issue	Legal position in India
Definition of gambling	<p>Gambling is a state subject in India, which means that states can implement their own gambling laws.<sup>602</sup> While most states adopt the central law on gambling,<sup>603</sup> some states have their own legislations. “Gambling” as per most laws is understood to mean “<i>the act of wagering or betting on an uncertain event for money or money’s worth.</i>”<sup>604</sup></p> <p>The SC defines gambling on similar lines as, “<i>the payment of a sum for a chance to win a prize.</i>”<sup>605</sup> In a number of other cases, Indian courts have interpreted gambling to include three elements: the presence of consideration, chance and the attainment of money or prize in return.<sup>606</sup></p>

## ISSUES AND ANALYSIS

### Loot box items have no monetary value

The items that come out of a loot box only have an in-game value. They are only used to improve game aesthetics or in-game performance, and do not provide any real-world monetary value. They only provide an enhanced gaming experience to users which cannot be quantified.

However, there are divided opinions on this issue in different countries. Belgium and Netherlands consider loot box items to have value and have banned them. The Belgian Gaming Commission considers value to include anything which is valuable for a player during gameplay, and does not limit its meaning to monetary gain in terms of currency.<sup>607</sup> Hence, as users spend real money on random add-on items which are valuable for the player, the use of loot boxes qualifies as gambling in Belgium.<sup>608</sup>

However, the UK Gambling Commission took a different view.<sup>609</sup> It concluded that virtual items obtained through loot boxes can only be used virtually within the game. Since they cannot be ‘cashed out’ like the winnings in an online real-money card game or a casino, they do not qualify as gambling.<sup>610</sup>

Under Indian law, the offence of gambling must necessarily involve the receipt of a monetary reward or prize. Though Indian laws do not define “money”, it is understood as a commonly accepted medium of exchange.<sup>611</sup> Items from a loot box are not quantifiable in value and thus cannot act as a medium of exchange. Further, loot box items from one game cannot be used in another game. Hence, loot boxes should not be treated as gambling in India.

### **Transferability of items outside the game ecosystem**

Some digital games may allow players to trade items received from loot boxes against the in-game currency. For instance, the game may allow you to trade a weapon for ‘coins’ or ‘tokens’ used in the game. However, since these items are merely in-game and cannot be exchanged for real money, they are not the same as winnings from gambling. Based on this rationale, the UK has put loot boxes outside the purview of gambling.<sup>612</sup>

Banning such in-game transfer mechanisms also takes out an essential part of the game. It prevents players from sharing these articles with their friends and teammates. This impacts team-based gameplay elements which promote values such as teamwork, cooperation and sharing. It necessitates every player to spend only for themselves, discouraging a sense of community among players of the game and encouraging a pay-to-win system instead.

Another issue is the presence of third-party marketplaces for the trade of these items. These marketplaces allow players to trade add-on content directly for real money/currency with other players outside the game which puts them outside the protection of in-game currency.<sup>613</sup> Even with a non-randomized reward mechanism, there will still be separate trading platforms for these rewards outside the game. Hence, the only solution is to completely ban any in-game player-to-player transfers. This is the stance followed in Netherlands and Belgium, which treat transferable articles from the loot box differently.<sup>614</sup> However, the lack of trading/transfer mechanism will lead to creation of a black market for trading items. These black markets are completely unprotected and completely hidden from the regulators as well the game developers.<sup>615</sup>

### **Probability of receiving specific loot box items**

Loot boxes rely on randomly generated outcomes that are based on probability calculations. Though the calculations seem to be based on chance, they are actually based on algorithms and influenced by player actions. The algorithm’s calculations remain consistent for all players, guaranteeing a uniform standard of randomness. Though you cannot determine which item you will get from a particular loot box, it can be mathematically determined as to how many loot boxes you will roughly need to get a particular item. Therefore, loot boxes are not based completely on uncertain outcomes.

To show the certainty of receiving a particular item from a loot box, the probability estimates of receiving such an item for each loot box should be published. This enables the buyer to make an informed decision. Both China and Japan mandate publication of probability estimates of reward items within a loot box.<sup>616</sup>

Similar probability estimates were also released by various gaming publishers, including Perfect World and Blizzard Entertainment.<sup>617</sup> Hence, gaming companies should mandate the release of “probability estimates” of getting a particular article while offering loot boxes.

### **Accessibility of loot boxes by vulnerable groups**

The use of loot boxes by vulnerable groups such as minors and gambling addicts has become an issue of concern in various jurisdictions. In Belgium, game publishers face up to USD 1.9 million in fines if they allow minors to use loot boxes. In Australia, a Senate inquiry called on the federal government to investigate whether loot boxes are harmful to children.

Some gaming ratings systems have tried to restrict access to games with loot box features. They add a specific label for digital games with IAPs including loot boxes, and give a higher age rating for them. However, a mere label for IAPs and an age rating are inadequate measures. IAPs include various things, one of which may be loot boxes. Without a specific label to solely indicate the use of loot boxes, these games will continue to harm vulnerable groups.

Digital games with a loot-box feature expose young player to a system which incentivizes great reward for minimum investment. Combined with the investment of real-money, this promotes an urge to make windfall rewards. Thus, digital games with loot boxes can act as a precursor to gambling.<sup>618</sup> Any game that contains a loot box feature must be labelled to indicate this. Even if they are not gambling practices, they must be rated as such, to prevent vulnerable groups from accessing them.<sup>619</sup>

However, this may significantly impact the revenue model for freemium games. To avoid such situations, the industry should introduce regulations that require a user to consent to the use of loot boxes each time a purchase is made. In addition, a monitoring system should be set in place to notify the guardian in case a minor breached a set threshold of loot box purchases in a day. Gaming companies may also build responsible gaming policies that notify the users on reaching a spend limit; allow them to voluntarily block the game; or provide consultation to users that have or have the potential to have gambling problems.

#### **RECOMMENDATIONS**

1. Amend the definition of gambling to only include receipt of monetary reward or prizes having real-world value.
2. All companies should publish the probability of a receiving a particular item from a loot box. Users should know beforehand how many loot boxes they need to purchase to attain a particular item in the game.
3. Companies that offer loot boxes should add a content indicator such as “contains loot boxes” rather than using a broad label like “in-app purchases” while publishing their game on app stores or any other platform.
4. Companies should come-up with internal processes to build an opt-in from the account holder every time a loot box is purchased from her account.

# CHAPTER 4

## POTENTIAL AREAS OF POLICY MAKING FOR DIGITAL GAMES AND SPORTS

Governments must proactively frame policies to capitalize on the potential of digital games and sports.

### Skill development and employability

Skill development policies do not focus on the gaming sector.

Poor training and lack of world-class education.

Limited information on jobs.

Issue

Recommendation

Cover gaming sector under National Skill Development Policy 2015 and Pradhan Mantri Kaushal Vikas Yojana.

Collaborate with premier institutes to offer specialised degrees and courses.

Disseminate information on jobs by collaborating with gaming companies.

### Promote fantasy sports to increase sports engagement

State gambling laws and policies are inconsistent.

Fantasy sports have not been tapped into for user engagement.

Issue

Recommendation

Bring state gambling laws in line with state policies on IT, animation, visual effects, gaming and comics.

National sports federations can collaborate with fantasy platforms to promote user engagement in national sports leagues and tournaments.

### Recognize esports as a professional sport in India

Esports are not accepted as a professional sport.

There is no recognized national sports federation for esports in India.

Issue

Recommendation

Create awareness around professional opportunities in esports.

Designate a national sports federation for esports.

### Promote gamification in key sectors

Limited government policies to promote gamification in education, health, and e-governance.

Issue

Recommendation

Develop gamification policies and collaborate with schools, colleges, hospitals, and private companies to promote gamification in key sectors.

## CHAPTER 4

### POTENTIAL AREAS OF POLICY MAKING FOR DIGITAL GAMES AND SPORTS

The digital games and sports sector is growing rapidly. In the past few years, the industry has seen a surge in users and entry of multiple gaming businesses. The industry is projected to grow further but lacks the adequate support from government policies that are either minimal or largely unimplemented. While some issues are common to the industry, others are unique to individual game categories as we discuss below.

<u>Introducing gamification in public services</u>	<u>Upskilling the gaming industry</u>
The use of certain casual games to unlock the potential of gamification in public services such as health, education, and governance has not been fully explored.	The industry has a dearth of skilled professionals that cannot fit into the emerging needs of the industry. Upskilling the Indian gaming workforce will make the industry independent.
<u>Use of fantasy sports for sports engagement</u>	<u>Recognition of esports as a professional sport</u>
The use of fantasy sports to increase engagement and its potential to transform participation in traditional sports is untouched.	Despite the huge opportunity to create esports competency, India lacks a recognised esports federation and a governance model.

#### SKILL DEVELOPMENT AND EMPLOYABILITY IN THE GAMING INDUSTRY

Many innovative products and businesses have entered the gaming industry in the past few years. Consequently, various employment avenues have opened up for India's workforce. However, despite the many opportunities present in the gaming industry, the government's effort to upskill the workforce and create employability in the sector has been limited. By 2022, the industry is projected to employ over forty thousand people,<sup>620</sup> and it is imperative that we formulate the right policies today that help us to sustain the future growth in the sector.

“The range of skills needed to...[build and maintain a gaming platform]... is vast and the specialisms too numerous to list. We have, for example, teams of dedicated programmers and testers, business intelligence analysts, security specialists, UX and UI teams, compliance and licensing professionals.”

- **Ankur Dewani, CEO, Sachiko Gaming (operator of PokerStars India)**

#### CURRENT STATE OF LAW AND POLICY

SKILL DEVELOPMENT
Relevant central level policies
<u>National Skill Development Policy 2015 (“NSDP 2015”)</u> : It aims to develop a skilled workforce on par with international standards. <sup>621</sup> The National Skills Development Council (“NSDC”) works with several partner institutions like Make in India and Digital India to vocationalise skill. The NSDC has set up a total of 38 Sector Skill Councils (“SSC”) for skill development, including the Media and Entertainment Skill Council (“MESDC”). <sup>622</sup> MESDC aims to train people in 3D art covering topics like game development, game design, game and character concept artists, etc. <sup>623</sup> The NSDP also aims to partner with foreign educational institutions and governments to upskill the Indian workforce, and set-up several skill universities across India under the Public-Private Partnership (“PPP”) model.
<u>Pradhan Mantri Kaushal Vikas Yojana (“PMKVY”)</u> : It aims to upskill India's youth in industry-relevant skills by enrolling them for training, special projects, organisation of ‘Rozgaar Melas’, and facilitating mentorship. <sup>624</sup> It established the lab infrastructure to facilitate skilling in 21 industries. <sup>625</sup> It also provides for a state engagement program for the media and entertainment industry under which jobs of modeller, animator, character designer, editor, roto artist and sound editor are marked as relevant. <sup>626</sup>
<u>National Apprenticeship Promotion Scheme</u> : It aims to promote apprenticeship programs through basic and on the job (practical) training and incentivizes employers who wish to engage apprentices. <sup>627</sup>

Relevant state level policies
<p><u>Karnataka</u>: The Animation, Visual Effects, Gaming and Comics Policy 2017-2022 (“<b>AVGC Policy</b>”) aims to stimulate over 100 companies in the sector,<sup>628</sup> and create more than 15,000 jobs by training individuals.<sup>629</sup> Initiatives such as: (i) financial support to game developers; (ii) establishment of digital art centers; (iii) collaboration with fine arts institutions; and (iv) creation of AVGC finishing schools have been proposed.</p>
<p><u>Maharashtra</u>: The AVGC industry is promoted through the state’s IT policy. Initiatives such as establishment of AVGC centers, workplaces, and educational institutes that offer digital art and animation courses have been taken.<sup>630</sup></p>
<p><u>Andhra Pradesh</u>: The Gaming, Animation, Media &amp; Entertainment Policy 2014-2019 (“<b>GAME Policy</b>”) aims to upskill the gaming workforce. Initiatives such as setting up of the ‘Game Academy’; promoting incubators for talented entrepreneurs; and launching India’s first Centre of Excellence for gaming, VFX, computer vision, and AI have been taken.<sup>631</sup></p>
<p><u>Other states</u>: Bihar identifies digital animation and content development as a ‘high priority sector’ under its industrial policy.<sup>632</sup> Uttar Pradesh promotes start-ups in the animation, AI and digital gaming industries under its IT Policy.<sup>633</sup> West Bengal promotes AI, AR, VR, animation, and gaming sectors under its IT policy.<sup>634</sup> It also lays special emphasis for upskilling in digital gaming.<sup>635</sup></p>
EMPLOYMENT
Relevant central and state level policies
<p><u>National Career Services (“NCS”)</u>: It is run by the Ministry of Labour and Employment (“<b>MoLE</b>”) to match job seekers and employers in private and public sectors.<sup>636</sup> It consists of the NCS portal, Model Career Centres (“<b>MCC</b>”) and Employment Exchanges (“<b>EES</b>”) project, which facilitates job search, job matching, career guidance, and other information.<sup>637</sup> The portal also has a dedicated work from home option.<sup>638</sup></p>
<p><u>Employment Journal</u>: It is run by the Ministry of Information and Broadcasting (“<b>MIB</b>”) and is published as a weekly job journal (in print and electronic forms) called the ‘Employment News’.<sup>639</sup> It gives information on job vacancies, training programmes, and notices of: (i) ministries, departments, public sector undertakings; (ii) government recruitment agencies;<sup>640</sup> and (iii) central and state government universities and colleges.<sup>641</sup></p>
<p><u>Other policies</u>: Several state governments like Kerala,<sup>642</sup> Maharashtra,<sup>643</sup> and Delhi,<sup>644</sup> among others,<sup>645</sup> also run their state-specific online job portals. The Ministry for Civil Aviation has its own portal for job seekers interested in various civil aviation sub-sectors.<sup>646</sup> The Ministry of Micro, Small &amp; Medium Enterprises also runs its own employment portal as well.<sup>647</sup> Other ministries publish their vacancies on their own websites.<sup>648</sup></p>

## ISSUES AND ANALYSIS

### Lack of coverage and accountability for skill development initiatives

Policies on skill development in India lack coverage of all relevant industries. At the central level, the NSDP 2015 and the PMKVY do not contemplate the requirements of the gaming sector. Although some of the professionals required in the gaming industry come from media and entertainment, information technology, and software development sectors - which are covered under the central policies. However, a number of professionals that are unique to gaming are unaddressed. Moreover, initiatives proposed under the various IT and AVGC policies of different states are either unimplemented or partially implemented.<sup>649</sup>

Further, there is a dearth of information available on the initiatives proposed under these policies. For instance, the NSDP 2015 proposed to partner with foreign governments and institutions and set-up universities in India, but no tangible or reliable data has been released to support these claims. In 2017, a government-appointed committee found that the targets under the NSDP 2015 were too ambitious and funds spent on the programme were not subject to adequate monitoring.<sup>650</sup> Moreover, while the PMKVY aimed to provide training free of cost, most of the youth had to bear their own cost of training as only 16% received funding by the government.<sup>651</sup>

When compared with its peers, India lags far behind in skill development initiatives for the digital gaming sector. For example, Germany has approved funding worth USD 59.2 million (approx.) for game development in the country.<sup>652</sup> The South Korean government has already invested more than USD 209 million in its digital gaming industry.<sup>653</sup> The government of China has undertaken a new initiative by targeting the training of 500,000 esports professionals.<sup>654</sup> The French government has started a campaign called ‘Join the Game’ which paints France as a digital gaming hub and attracts game developers to move to France.<sup>655</sup> The UK government has set up a UK Games Fund to enhance the digital gaming industry in the UK. Furthermore, the UK has even launched a USD 18.3 million ‘Creative Careers Program’ to upskill those wishing to join the digital gaming and other creative industries.<sup>656</sup> Lastly, the US government funds digital games if they are creative enough to be considered as art.<sup>657</sup>

As evident, there are no initiatives or policies in India that directly cater to the gaming industry. With no accountability of the central government, implementation of most of the central policies has been cursory which has led to inefficiency and wastage of resources.

### **Quality of training and lack of world-class education**

Most of the central and state policies lack the quality of education required by the industry. The NSDP 2015 has been criticized to have various shortcomings, including: (i) absence of nation-wide vocational education and training standards; (ii) lack of an integrated on-site apprenticeship training; (iii) inadequate industry interface; (iv) insufficient financing; (v) scarce training capacity; (vi) poor quality outcomes, and (vii) shortage of qualified trainers.<sup>658</sup>

India is far behind other countries in terms of initiatives for formal training and education in the gaming industry. For example, students in China are trained for affiliate careers in esports such as commentary,<sup>659</sup> and other courses on game design and development.<sup>660</sup> Similarly, several universities in Germany and South Korea also offer a bachelor's degree in game design and development.<sup>661</sup> In the US and UK, more than 200 institutes offer degrees in digital game design, game development, animation, game programming and game art. Additionally, unlike South Korea and France, the Indian government has not undertaken any initiative to promote digital gaming as a career.<sup>662</sup>

The various training programs proposed through the central and state policies have their own limitations. Many trainees find these programs theoretical and not useful to get employment. Students attach little value to training whereas trainers focus on increasing their numbers rather than quality of education. Further, the financial support from the government to develop skill development programs for the gaming industry has been limited. All initiatives to upskill the workforce is hence currently at the behest of individual companies in the private sector.

“We continuously engage with colleges and institutions. Our endeavour is to have various courses instituted around careers in gaming and esports.”

- **Sidharth Kedia, CEO, Nodwin Gaming**

### **Lack of information on job availabilities**

Both central and state governments run various EEs to collect and furnish information on prospective employers, vacancies and job seekers.<sup>663</sup> Due to various challenges such as lack of digitisation, lack of placements, inadequate infrastructure, and cumbersome processes, EEs were integrated into the NCS project.<sup>664</sup>

Through the NCS project, the central government aimed to interlink and bring all pre-existing EEs under a common hood.<sup>665</sup> However, figures reveal that this has not yet been achieved.<sup>666</sup> Therefore, currently, there is no single website or platform which hosts all employment related information across the private and public sector. The NCS also revamped EEs into MCCs. It aimed to digitize and modernize EEs for collaboration with state and private institutions.<sup>667</sup> However, this process is also only partially complete, and thus the NCS projects today have both MCCs and EEs. As of November 2019, the MoLE has approved the transformation of 164 EEs into MCCs.<sup>668</sup> Although many of these have been launched, the implementation and growth has been sluggish with gaps between demand and availability of jobs.<sup>669</sup>

With the digital gaming sector growing rapidly, there is huge potential for employment generation in the industry. Governments should endorse PPP models. For instance, MoLE endorses PPP model to optimize the NCS project.<sup>670</sup> The NCS' partnership policy details the eligibility for partnership and the approval procedure.<sup>671</sup> The NCS portal can act as a bridge between professionals and employers of the gaming industry. The MoLE enters into private collaborations for setting up MCCs, and with SSCs for steering skill development and training in MCCs.<sup>672</sup> Similar collaborations should be sought with players in the gaming industry to build skill development programs and initiatives for the sector.

### **RECOMMENDATIONS**

1. The gaming sector should be added as a focus area under NSDP 2015 and the PMKVY to ensure professionals are adequately skilled as per the needs of the industry.
2. Central and state level policies on skill development could include measures that promote accountability and reporting. Governments should periodically release data on all the initiatives they have proposed under their respective skill development policies.
3. Governments could collaborate with premier institutes like Indian Institute of Technology and Indian Institute of Management to offer specialised degrees and courses related to the digital gaming sector.
4. Governments could collaborate with digital gaming companies to launch and promote apprenticeship programs (especially for those without college degrees) that promote skill development.

5. Governments could collaborate with gaming companies for listing of job vacancy and requirements on the NCS portal. It could collaborate with private players in the gaming industry to provide skill-building courses, counselling and career guidance to job seekers and aspirants.
6. The employment journal of the MIB is currently only a newsletter with no information on any job-matching services. MIB could collaborate with private players to transform the journal into a listing and matching platform for job vacancies in the gaming industry.

### PROMOTE FANTASY SPORTS TO INCREASE SPORTS ENGAGEMENT

Fantasy sports have grown tremendously in the past few years. From 5 million users and 25 operators in 2017, there are now more than 140 operators and around 100 million users of fantasy sports in 2020.<sup>673</sup> With every 2 out of 3 sports enthusiasts aware about the concept, fantasy sports have given a new medium for sports engagement.<sup>674</sup>

However, despite the potential to boost interest in all types of team sports, fantasy sports engagement remained concentrated to cricket and football. While platforms offer fantasy sports for hockey, basketball, kabaddi, and volleyball as well, user traction for these variants has been lower compared to cricket and football. This can be attributed to the limited number of leagues and regional tournaments around other sports, which consequently impacts user interest. Further, AVGC policies in states that prohibit gaming through legislation, have created confusion and impacted the growth and adoption of fantasy sports.

#### CURRENT STATE OF LAW AND POLICY

The development of fantasy sports depends on the presence of flexible laws and policies, and a robust framework for sports engagement and participation in the country.

AVGC policies in the Special States
<p><u>Assam</u>: The Information Technology and Electronics Policy 2017 focuses on nurturing innovation and entrepreneurship in gaming. It aims to provide financial and infrastructural incentives to the AVGC sector by easing operations and the need for various licenses. It provides additional support to companies that have a permanent physical and infrastructural set-up in the state.<sup>675</sup></p>
<p><u>Odisha</u>: The Information, Communications and Technology (“<b>ICT</b>”) Policy 2014 lists entertainment, information technology, visual effects, animation, and gaming as special focus areas identified for active promotion via financial and policy benefits.<sup>676</sup></p>
<p><u>Andhra Pradesh</u>: The Gaming, Animation, Media &amp; Entertainment Policy 2014-2019 (“<b>GAME Policy</b>”) covers initiatives such as setting up of the ‘Game Academy’; promoting incubators for talented entrepreneurs; and launching India’s first Centre of Excellence for gaming, VFX, computer vision and AI.<sup>677</sup></p>
<p><u>Telangana</u>: The Information Technology, Media, Animation, Gaming and Entertainment (“<b>IMAGE</b>”) Policy 2017 aims to promote gaming and animation by recognising it as an emerging vertical in the ICT sector. The policy lays out the Telangana government’s vision to make every effort to attract gaming companies and start-up businesses.<sup>678</sup></p>
Policies to develop sports in India
<p><u>Implementing authority</u>: The Ministry of Youth Affairs and Sports (“<b>MYAS</b>”) is primarily responsible for developing sports in India and achieving sports excellence at national and international tournaments.<sup>679</sup></p>
<p><u>The National Sports Development Code 2011 (“<b>NSDC 2011</b>”)</u>: The MYAS has recognised various National Sports Federations (“<b>NSFs</b>”) to develop capabilities in their respective sports.<sup>680</sup> The Amateur Kabaddi Federation of India (AKFI),<sup>681</sup> the Volleyball Federation of India (VFI),<sup>682</sup> the Basketball Federation of India (BFI),<sup>683</sup> and Hockey India,<sup>684</sup> are a few NSFs.</p>
<p><u>Categorization of sports under NSDC 2011</u>: MYAS has graded all sports as either (i) priority, (ii) general, or (iii) others, to decide their eligibility for government assistance.<sup>685</sup> India’s performance at international events, the number of professional players in the sport, and the overall engagement and interest in the sport are important considerations here.<sup>686</sup></p>
<p><u>Disincentive for lack of participation</u>: Promoting participation and awareness about their concerned sport falls within the long-term objectives of each NSF.<sup>687</sup> The amount of funding provided by MYAS to NSFs to organise national competitions is also based on the level of participation the NSF manages to gather.<sup>688</sup> To ensure adequate participation, state bodies affiliated to the NSF send a requisite number of participants to all competitions organised by their NSF.<sup>689</sup></p>

## ISSUES AND ANALYSIS

### Inconsistency between states' law and policy on gaming

Certain inconsistencies exist when gaming laws of some special states are seen alongside the state's policy on gaming and animation. As discussed previously in this Report, some games are prohibited in Assam, Odisha, Andhra Pradesh, and Telangana, as per their anti-gambling laws.<sup>690</sup> On the other hand, the AVGC and IT policies in these states seek to promote, incentivize, and create a regulatory environment that attracts gaming businesses.

Contrary to the objectives of these policies, companies are sceptical about running a gaming business in these states as they fear fine and criminal punishment under the state law.<sup>691</sup> For instance, days after the Telangana government prohibited skill-based games, 2 (two) companies Gameloft (a French developer) and Gameshastra (which has investments from Disney India) had to shut shop, leaving 250 employees in the lurch.<sup>692</sup>

As recommended previously in this Report, states must amend their anti-gambling legislations to explicitly carve out games of skill from the prohibition. Evident from their policies, the anti-gambling laws in these states are out of step with the state government's focus to build popularity, bring investment, and generate employment in the gaming sector.

### Use of fantasy sports to boost sports engagement and participation

In India, apart from cricket, the stature of other team sports is not significant – both in terms of viewership and quality of sportsperson.<sup>693</sup> Globally, India ranks poorly in football, volleyball, and basketball and has mostly failed to make it to important events like the Olympics, the FIFA World Cup, or the FIBA Basketball World Cup.<sup>694</sup> As per the NSDC 2011, all NSFs are tasked with developing capabilities in their respective sport. The development of a sport discipline can be a function of several things, among which sports engagement and participation can be solved through the promotion of fantasy sports.

*Increase in sports engagement and viewership:* One of the long-term development goals of each NSF is to generate user interest in their sport. For NSFs that oversee team-based sports, fantasy sports could help achieve this goal. Participation in fantasy sports involves various activities that bring a user closer to the actual sport. A user is required to study the rules of the sport, know about the past performances of playing teams, assess the fitness and performance level of players, and understand how the venue, pitch, and weather conditions can impact the match result. All of this leaves a fantasy sports user with a deep understanding and interest in the underlying sport.<sup>695</sup> Fantasy sports has also disengaged users from team fandom. Even if their favourite team or player is not playing, fantasy users are likely to watch the sports match which has boosted overall sports viewership.<sup>696</sup> In the US, owing to the use of fantasy sports, 65% of users end up watching more televised sports, while 61% read more about sports updates and news.<sup>697</sup> In India, 37% of fantasy sports users consume more than 6-8 hours of sports content per week to stay abreast of news on players and match conditions.<sup>698</sup> Further, 80% fantasy sports users agree that browsing information about sports matches improves their strategy.<sup>699</sup> Consumer surveys have also found that fantasy sports have broadened the fan base and are today as popular in non-metro cities as metros.<sup>700</sup>

“Fantasy sports can attract participation and engagement in the underlying physical sport. Most of the prominent leagues and few regional leagues have partnered with us for hosting a fantasy contest for their respective leagues which makes it evident that fantasy sports help to increase sports viewership and engagement.”

- Kiran Vivekananda, Chief Policy Officer, Dream11

*Increase in sports participation:*<sup>701</sup> All sports governed by the MYAS are treated as per their priority status. A ‘priority’ status ensures more funds, better infrastructural support, and financial assistance to sportspersons of the concerned sport. Apart from hockey, no team sport currently has a ‘priority’ status from the MYAS.<sup>702</sup> The priority status of a sport depends on various factors such as the level of participation, quality of sportsperson, and India's past performance in the sports at international tournaments.

Fantasy sports can help NSFs to attract participation in their sport. Collaborations between fantasy sports operators and organisers of sports tournaments can build the sporting culture, contribute in infrastructure development, nurture sports talent, and may even convert fantasy sports users to sportsperson.<sup>703</sup> In India, the GoSports Foundation and the Dream11 Foundation have partnered with FIFS to support athletes in non-mainstream sports under the “Stars of Tomorrow” programme.<sup>704</sup>

## RECOMMENDATIONS

1. The anti-gambling laws in Telangana, Assam, Andhra Pradesh, and Odisha should be amended to bring them in line with the more progressive IT and AVGC policies of these states, which recognise the importance of investing in the AVGC and the digital gaming sectors.
2. NSFs should engage with fantasy sports operators to create user engagement in national leagues and tournaments. Initiatives such as giving fantasy users and fans an opportunity to meet their favourite players, attend a live match, and take part in team experience and training should be considered.

## RECOGNIZE ESPORTS AS A PROFESSIONAL SPORT IN INDIA

The popularity of esports has increased massively in recent years. Global esports viewership is at record high and professional gamers are treated no less than celebrities. The industry is seeing many new game publishers enter the market and more and more esports tournaments are being organized. Amidst these positive developments, esports governance has largely been sidelined – both globally and in India.<sup>705</sup>

In India, esports continues to battle societal perception and establish itself as a ‘sport’. Unlike other sports, esports do not have an NSF. Multiple issues arise because of this which adversely affects esports: lack of infrastructure, number of tournaments organized, availability of coaches and training centers, quality of esports players, etc. Esports is a global sport today and may feature at the Olympics and the Asian Games soon. It is thus imperative that a robust esports ecosystem should be built in India that will help us excel at events and tournaments organized internationally.

### CURRENT STATE OF LAW AND POLICY

The MYAS is responsible for developing sports and youth affairs in the country. The NSDC 2011 regulates sport governance in the country.<sup>706</sup> It recognizes various associations as the ‘National Sports Federation’ of the sport, and tasks them with developing the sport in question.<sup>707</sup> The NSDC 2011 sets-out two criteria to recognize an association as an NSF.<sup>708</sup>

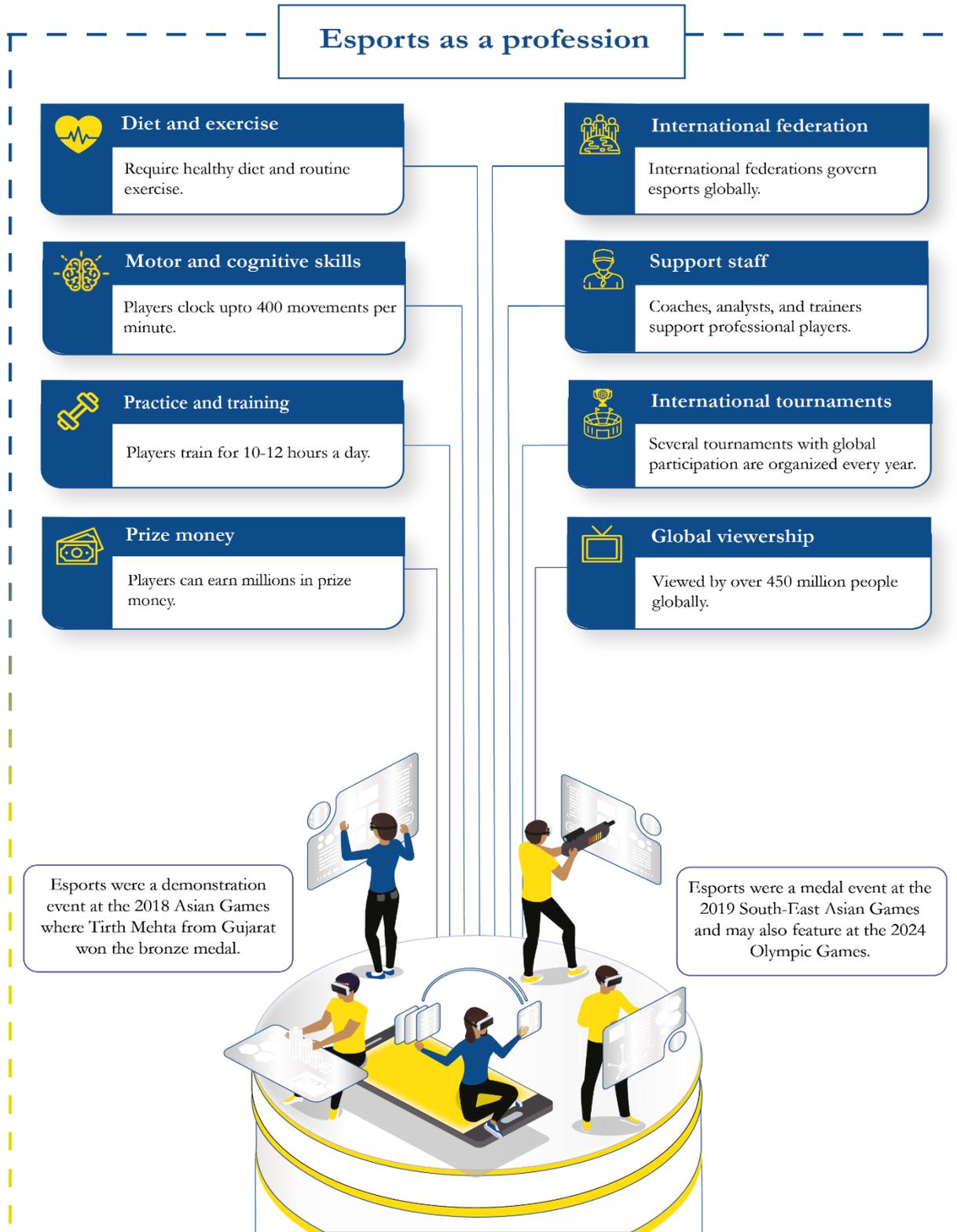
General criteria	Special criteria for sports not a part of the Olympic Games, Commonwealth Games or the Asian Games
Recognition by the International Federation and the Asian Federation of the sport.	Popular indigenous sport with an all-India spread.
Recognition by the Indian Olympic Association in respect of an Olympic sport.	Popularity of the sport in school, colleges and universities.
All India spread and an undisputed status as an apex body in India.	Likelihood of inclusion in major international games like Olympics, Commonwealth Games, and Asian Games.
Conduct of national championships and role in developing the sport in India.	Availability of required infrastructure and equipments.
Fair, transparent and democratic elections and good financial and managerial accountability.	Financial stability and affordability to pursue the game.
Compliance with age and tenure limit guidelines and protection of players’ interests and welfare.	Availability of coaches and trained personnel to nurture and develop sports talent.
Grants and assistance to a National Sports Federation <sup>709</sup>	
<u>Coaching camps</u>	Financial assistance to athletes, coaches and support personnel for approved coaching camps to cover expenses in travel, board and lodging, training kits, medical coverage, ration and food and insurance.
<u>Equipment</u>	All needs with regard to sports equipment and infrastructure will be incurred by the Sports Authority of India (“SAI”). The equipment will be in SAI’s possession. MYAS will cover 75% of the cost if the NSF purchases the equipment itself.
<u>Cost for participating in international events</u>	MYAS covers the cost for participating in international events that it has pre-approved. The assistance covers the cost of training, air passage, boarding and lodging of sportsperson and coaches.
<u>No prior approval for participation in certain events</u>	Other than participation at the Olympics, the Asian Games, or the Commonwealth Games, the NSF is not required to take the prior approval of the MYAS for conducting trials, selections and sending representations.
<u>Assistance to organize national and regional tournaments</u>	MYAS supports an NSF to organize one national level championship; <sup>710</sup> one junior level championship; <sup>711</sup> and one sub-junior championship per year. <sup>712</sup> NSFs also get assistance to organise upto 6 regional championships per year. <sup>713</sup>

*Assistance to organize international tournaments*

MYAS grants funds to an NSF to organize any world cup tournament, Commonwealth Games, Asian Games, or any other international tournaments.<sup>714</sup>

ISSUES AND ANALYSIS

Lack of acceptance of esports as a sport



“To promote gaming as a career, it is important to change the perception of gaming and delink its association with addiction. On the regulatory side, you need regulatory certainty. Either the government should come out with a comprehensive esports policy, or commence discussions on defining esports and also encourage esports by making supportive statements and starting national level esports tournaments.”

- **Dibyoyoti Mainak, General Counsel, Mobile Premier League**

There is some scepticism whenever the values and opportunities in esports are compared to a physical sport. As discussed earlier in this Report, typical characteristics of a sport such as application of physical and mental strength, teamwork, need for regular training, proper routine and diet intake, and presence of international federation and tournaments, are present in esports.<sup>715</sup> Even in terms of global viewership, esports are ahead of many popular sports like cricket and basketball.<sup>716</sup>

Esports also meets the criteria of being a profession. Similar to a typical job, esports players are employed by esports companies, are required to devote long hours to play and practice esports, are required to analyze and track their own performance, keep a performance track of team members and competitors, take proper diet, and they earn handsomely when they perform better.<sup>717</sup>

India fairs poorly in esports initiatives in comparison to other countries. Countries around the world are taking esports seriously and promoting it as a sport. Citizens in South Korea are encouraged to engage in esports and ensure moderate gameplay.<sup>718</sup> Japan organised an esports event for persons with disabilities in Takasaki.<sup>719</sup> In Sweden, a non-profit organisation came up with a code of conduct on how individuals should create an open and welcoming environment for esports.<sup>720</sup>

As mentioned previously in this Report, public perception towards esports is one of the primary reasons for its setback. However, as discussed above, these perceptions are based on misconceptions and anecdotal evidences. Esports are very well a professional sport, as evidenced above. Millions of people play and watch esports and for many it is a huge career opportunity. Being the implementing ministry for sports in India, MYAS should come up with strategies and awareness campaigns that drive away misconceptions about esports in India. MYAS should inform the public about the values, skills, and opportunities that exist in esports, both at the national and international level. Coming directly from MYAS, such initiatives will help to debunk myths and comfort parents and guardians about the prospects of esports in the country.

#### Need to recognize an NSF for esports in India

“The lack of a unanimous body to govern esports affects our esports culture deeply. Most of the players are young adults and have limited bargaining power. Players are sometime exploited through unfair and onerous contract terms. Designating a National Sports Federation for esports will create parity and ensure that India’s esports talent is nurtured adequately.”

- **Sarthak Doshi, Associate, Ikigai Law**

The NSDC 2011 has two criteria to recognise a body as the NSF for a sport. Although esports do not completely meet either, developments around esports are promising. There are thousands of esports players in India,<sup>721</sup> mostly from schools and colleges.<sup>722</sup> Esports were included as a demonstration event at the Asian Games 2018, a medal event at the South Asian Games 2019, and is proposed to feature at the Olympic Games 2024. A number of private players and self-regulatory bodies have taken initiatives to organize esports tournaments and develop required infrastructure.<sup>723</sup>

Until now, there has been no support from the MYAS to develop esports capabilities in India.<sup>724</sup> For esports to have an NSF, the criteria laid out under the NSDC 2011 is a difficult one. Esports is still in a nascent stage and needs special focus from the government to develop infrastructure, equipment, interest and participation from the public. Governments across the world have taken active steps to create robust esports governance.

Initiatives	Examples
<u>Creation of an esports federation</u>	South Korea established the Korean Esports Association (“ <b>KeSPA</b> ”) in 2000 to manage event organisation and playing conditions. <sup>725</sup> Japan established the Japan Esports Union (“ <b>JeSU</b> ”) to develop esports. <sup>726</sup> Sweden established the Swedish gaming federation ‘Sverok’.
<u>Inclusion in curriculum and recognition as a profession</u>	The US allows universities to give out professional degrees in esports. <sup>727</sup> Players visiting the US to participate in esports events are eligible for a special player visa. <sup>728</sup> Schools in Sweden teach esports like <i>CS:GO</i> in their curriculum and organise boot camps where one can learn to play esports from professional athletes. <sup>729</sup> China recognises esports operators and esports players as professionals. <sup>730</sup> The Dutch Department of Defence has created its own <i>CS:GO</i> team as a part of talent recruitment. <sup>731</sup>

<u>Developing esports stadiums and training facilities</u>	South Korea established the world's first esports stadium in Yongsan. <sup>732</sup> It opened the 'Game Coach' esports academy in Seoul with dedicated classrooms for students and teachers. <sup>733</sup> The US funded an esports stadium in Virginia. <sup>734</sup> In China, local governments developed the country's largest esports complex with fast broadband, infrastructure and equipments, and esports industrial parks that act as incubators for game developers and esports teams. <sup>735</sup>
<u>Financial and contractual stability for esports players</u>	South Korea proposes to prescribe a minimum salary of USD 20000 per year for professional esports players. <sup>736</sup> It further states that player contracts should have a minimum term of one year. <sup>737</sup> Japan formed an esports players union to introduce pro-licensing system to help players participate in esports tournaments based on their skill.
<u>Supporting esports businesses and service providers</u>	The Dutch government provides guarantees for security and business loans, microfinance facilities, and support for venture capital funds that invest in technology. <sup>738</sup> In China, Shanghai's Yangpu district offers a 30% rental discount to businesses in the esports sector. <sup>739</sup>
<u>Ensuring fair play and avoiding instances of e-doping</u>	South Korea outlaws cheating in esports events and designates it as crime. <sup>740</sup>
<u>Organisation of international tournaments</u>	Japan organised an esports event in 2019 with a budget of USD 473,000 (approx) for the gaming and anime industry. <sup>741</sup> China has set up a USD 150 million development fund and gives USD 1.2 million in subsidy for organisation of international tournaments. <sup>742</sup>

Taking a cue from governments abroad, MYAS should establish an NSF for esports soon. An NSF-tag would ensure the overall development of the sport and its professionals, and may also better India's chances to win medals at national and international events. Every sport in which Indian sports professionals have excelled internationally, till date, comes under a recognized NSF.<sup>743</sup>

In 2019, a total of 56 NSFs were recognized for various sports disciplines in India,<sup>744</sup> including atya patya, body building, bridge, cycle polo, kho-kho, mallakhamb, pencak silat, roll ball, rowing, sepaktakraw, tenni-koit, ten-pin bowling, and even tug of war, but esports still awaits recognition.

The establishment of an NSF for esports may also incentivize young adults to participate more in esports:

<b>Benefits to sportspersons if a sport is under an NSF</b>	
<u>Pension</u>	The government enrolls all sportsperson (that are under an NSF) to pension and welfare schemes provided by the government of India. <sup>745</sup>
<u>Government job</u>	Sportspersons under a recognised NSF are eligible to be enrolled for government services. Under the Pandit Deendayal Upadhyay National Welfare Fund for Sportsperson Scheme, <sup>746</sup> the government provides financial assistance to sportspersons who are living in indigent circumstances. <sup>747</sup>
<u>Medical treatment</u>	NSF provides assistance to sportspersons for injuries sustained during the training camp or at the competition; including assistance for proper medical treatment.
<u>Admission in schools and universities</u>	Sportspersons are eligible to get admissions under sports quotas in public schools and colleges.
<u>Concessions for air passage and rail travel</u>	Sportspersons and teams under an NSF are eligible for reimbursement of their cost of air-passage, boarding, and lodging. <sup>748</sup> MYAS may also provide additional staff such as masseurs, GMTT experts and doctors with the team.

The lack of recognition hurts the development of esports as a professional sport. Without an NSF, no person can officially represent India at any international sporting event or tournament organized for esports.<sup>749</sup> Recently, the Delhi High Court also observed that international sporting events are essential to India's diplomatic relations and sportspersons should not miss out on participating in such events.<sup>750</sup> As several esports tournaments are organised both in the Asia-Pacific region and globally, Indian esports players should get to participate in those tournaments so as to build harmony and diplomatic relation with other countries.

## RECOMMENDATIONS

1. MYAS should create awareness around esports in India. It should come up with strategies and awareness campaigns that inform the public more about the benefits, opportunities and the potential of esports, both at the national and international level.
2. MYAS should appoint an NSF for esports in India. This NSF should be given financial and managerial support to develop infrastructure and promote esports in schools and colleges like other traditional sports.

### PROMOTE GAMIFICATION IN KEY SECTORS

Game mechanics are changing how people behave online and in real-world situations. Governments across the world have started using gamification to grow community engagement and improve their public services.<sup>751</sup> In India, while the gaming industry is booming, the use of gamification is negligible. In this section we discuss how public health, education and governance can benefit from the use of gamification-oriented policies in India.

#### CURRENT STATE OF LAW AND POLICY

<b>EDUCATION</b> <b>Implemented by the Ministry of Education</b>
<u>National Education Policy 2020</u> : It aims to improve the educational framework in elementary and university education across India. It focuses at all levels of primary and secondary education and proposes to use applied games to boost literacy, and teach courses through adaptive assessments and personalised learning. <sup>752</sup>
<u>National Curriculum Framework 2005</u> : It highlights the role of ICT in school education and how educational programmes can address specific learning needs.
<u>National Policy on ICT in School Education 2012</u> : It aims to leverage the potential of ICT to improve the quality, access and efficiency in the schooling system. It stresses upon the need to deploy interactive games, simulations, and models for developing content for the purpose of teaching and learning. <sup>753</sup>
<b>HEALTH</b> <b>Implemented by the Ministry of Health and Family Welfare (“MoHFW”)</b>
<u>National Health Policy 2017 (“NHP”)</u> : The NHP aims to focus on 7 (seven) priority areas: cleanliness, <sup>754</sup> healthy diet and exercise, reducing alcohol and substance abuse, road safety, <sup>755</sup> gender safety, <sup>756</sup> reduce stress at workplace, and better air quality. It established the National Digital Health Authority (“NDHA”) to introduce eHealth, mHealth, cloud, internet of things, and wearable technologies for healthcare delivery.
<u>National Policy for Persons with Disabilities 2006</u> : It aims to create an environment that provides persons with disabilities with equal opportunities, protection of their rights and full participation in society. This is done by enabling the physical, educational and economic rehabilitation of persons with disabilities. <sup>757</sup>
<u>National Mental Health Policy 2014</u> : It promotes mental health, prevents mental illness, enables recovery, promotes destigmatization, and ensures socio-economic inclusion of persons affected by mental illness through health and social care programs. <sup>758</sup>
<b>GOVERNANCE</b> <b>Implemented by the Ministry of Electronics and Information Technology (“Meity”)</b>
<u>National e-Governance Plan 2006 (“NeGP”)</u> : It aims to implement e-governance initiatives across the country to develop governance infrastructure, undertake digitization of records, enable access over the internet, drive citizen engagement and deliver public services to homes. <sup>759</sup> The policy was relaunched in 2015 as ‘e-Kranti: National e-Governance Plan 2.0’. <sup>760</sup> Further, the Framework for Citizen Engagement proposes to drive citizen participation and civic engagement in the delivery of public services through technology-based interfaces. <sup>761</sup>

Digital India 2015: It aims to develop a secure digital governance infrastructure to deliver public services digitally, and achieve universal digital literacy.<sup>762</sup> This has enabled other initiatives such as Aadhaar,<sup>763</sup> myGov,<sup>764</sup> UMANG,<sup>765</sup> DigiLocker,<sup>766</sup> PayGov,<sup>767</sup> Mobile Seva,<sup>768</sup> among others.

## ISSUES AND ANALYSIS

### Introducing gamification in education policy

As per the latest Census, India has a literacy rate of 74.4%,<sup>769</sup> and ranks 128<sup>th</sup> in the world.<sup>770</sup> The state of elementary education, is also concerning. As many as 80 million children between the age of 6-14 years are illiterate in India.<sup>771</sup> A number of factors are responsible for the current state of Indian educational system. These include a lack of access to education in remote areas, poor quality of teachers, archaic curriculums, and stickiness to traditional means of learning. As a result, education in India remains theoretical and lacks engagement from children.

The introduction of gamified education may solve some of these issues. As discussed previously in this Report, gamification results in increased learner engagement, customized and situational learning, and helps to teach complex subjects like math and science through interactive means.<sup>772</sup> Today, governments and educational institutes across the world are increasingly promoting gamification.<sup>773</sup> In 2013, the US Department of Education funded several gaming companies with USD 1 million each to develop hardware and software, and to research how games can be built into the classroom environment.<sup>774</sup> Quest to Learn (“Q2L”), a public school in New York, has gamified 90% of all its courses and classes and teaches around 662 students from age 10 to 18. Q2L thrives through PPPs and extreme institutional support from the New York City Department of Education.<sup>775</sup>

In India, the Ministry of Education is yet to operationalize gamification in the education sector. While the National Curriculum Framework 2005 and the National Policy on ICT in School Education 2012 do speak about the use of ICT to improve school education, there is no mention of gamification. Initiatives to promote ICT are also minimal and outdated and lack participation from the private sector. The National Education Policy 2020 is however a welcome step. It proposes to introduce games in early education and recognises their need to make learning more engaging and fun.<sup>776</sup> Although, given the impact games and gamification can have on education, the policy understates their reach. Apart from the use-cases discussed by the policy, games and gamification can be implemented for – promoting education, equity and inclusion in higher education, professional and on-the job training, and imparting soft skills such as motivation, leadership, and humility. Further, as public institutions are underequipped to make gamified products for education, the Ministry of Education should focus on private participation for implementation.

“The gaming industry is going to be one of the biggest beneficiaries of the National Education Policy 2020. It is a cross culture between engineering, arts, pedagogy, and sports – all areas that gaming integrates. I have come across various tech clients who want to collaborate with the government to build gamified solutions for education.”

- Nehaa Chaudhari, Partner, Ikigai Law

### Introducing gamification in health policy

India currently ranks 150<sup>th</sup> in the world in terms of healthcare.<sup>777</sup> About 200 million people suffer from mental health disorders, including 46 million from depression and 45 million from anxiety disorders.<sup>778</sup> The number of stroke cases in India is also on the rise with 1.8 million people suffering from it annually, despite developed countries witnessing a 42% drop.<sup>779</sup> The healthcare system in India is plagued by a lack of awareness, limited access to facilities, affordability of healthcare, among other things.<sup>780</sup>

The use of games and gamification may improve India’s healthcare system. As discussed previously in this Report, games help in the diagnosis and treatment of several mental health disorders.<sup>781</sup> Gamification techniques have also been used for therapy and physiotherapy.<sup>782</sup>

Governments and public health institutions across the world are increasingly using games and gamification for healthcare. The Australian government has funded USD 21.9 million for its ‘Project Synergy’ which aims to use innovative technologies (including serious games and gamification) to develop mental healthcare services.<sup>783</sup> The Malaysian government proposes to bring private stakeholders to develop its digital health ecosystem.<sup>784</sup> Mobile health applications that rose due to gamification have started being considered as medical devices in the US and the UK.<sup>785</sup> Platforms such as *Sobriety Counter* and *Nomo* help patients of alcohol abuse by keeping real time updates of their sobriety, calculating money saved, and asking users to play a memory game that scientifically beats ones’ desire to drink.<sup>786</sup>

In India, the discussion around gamification in health is negligible and mostly unactioned. Both the National Policy for Persons with Disabilities 2006 and the National Mental Health Policy 2014 do not discuss the use of gamification or games for either diagnosis or treatment. There is also a lack of training and understanding among healthcare professionals and policy makers on the benefits of gamification. The National Health Policy 2017 aimed to establish a NDHA to introduce eHealth, mHealth, and wearable technologies in healthcare, but has not been set-up till date.

## Using gamification for better e-governance

The effective use of gamification can increase the engagement and communication between citizens and their governments.<sup>787</sup> Governments have also used gamification to regulate public behaviour and ensure compliance with laws.<sup>788</sup> Gamification offers the motivational element of reward that can enable changes in public behaviour.<sup>789</sup> Further, gamification is good at driving motivation and engagement from people to pursue government jobs that are otherwise lethargic and monotonous.<sup>790</sup>

Governments across the world are increasingly using gamification for better governance. For instance, the Indonesian government deploys applied gaming to help translate English words to several local Indonesian dialects to better enable communication with citizens and collect feedback.<sup>791</sup> In Stockholm, the government launched a gamified radar system to promote respect for speed limits on the road. This initiative rewarded those who respected the limits and included them in a lottery, the prize of which was raised with speeding fines.<sup>792</sup> In the UK, gamification was used to collect ideas and suggestions from government employees through a gamified stock market for ideas.<sup>793</sup> In the US, Boston launched the 'SpotHoles' campaign to encourage constituencies to report pothole locations in their jurisdiction through a gamified app.<sup>794</sup> Overall, there is a strong public policy argument for using applied gaming to better drive citizen engagement, civic participation, create better policies, and regulate public behavior.

In India, gamification can help politicians and governments to engage with citizens – a situation which has largely remained untouched in India. The NeGP and the Framework for Citizen Engagement were useful steps towards this end, but have largely been dormant with no initiatives undertaken. This is a problem, and applied gaming can play a key role in increasing citizens' use of public service technologies, and at the same time, make them feel empowered as active participants in the society.

### RECOMMENDATIONS

1. The Ministry of Education should create a framework that allows schools and colleges to conduct pilot projects, build foreign collaborations, partner with private companies to offer gamified education in public schools and universities, and fund the research and development of gamification technologies.
2. The MoHFW should introduce gamification in healthcare. A good starting point could be the establishment of the NDHA as proposed by the National Health Policy 2017.
3. The NeGP should start focusing on gamification and using the benefits of regulatory tech. Private players, companies, and NGOs should be empanelled for government initiatives and projects to achieve faster dissemination and implementation of such policies.

## IMPLICATIONS OF UPCOMING DATA GOVERNANCE LAWS FOR THE INDIAN GAMING INDUSTRY

India does not have a standalone data protection law. The Information Technology Act 2000 (“IT Act”),<sup>795</sup> along with the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules 2011 (“SPDI Rules”), address some data-protection related issues but only to a limited extent. The gaming industry largely complies with the major obligations under the IT Act, such as providing the user with its privacy policy, taking the user’s consent for collecting sensitive personal data and information (“SPDI”) and not sharing the user’s data with third parties, except as given under the IT Act. Other than that, certain sectoral regulations around data protection may also apply to real-money gaming companies, such as local storage of payments data, or KYC-related data protection measures.

However, India is currently in the process of finalizing a comprehensive data protection law for personal data (“PD”), called ‘The Personal Data Protection Bill, 2019’ (“PDP Bill”).<sup>796</sup> The PDP Bill will require business to largely revamp their existing data collection and processing activities. The Indian government is also considering a framework for non-personal data (“NPD”),<sup>797</sup> which includes business data, insights or inferences.

This chapter discusses some of the requirements under the PDP Bill and the NPD governance framework, and how it may impact the gaming industry.

### Impact of the forthcoming PDP Bill on the gaming industry

The PDP Bill will revamp the way businesses handle data. It applies across sectors, so any entity that collects individuals’ data will be affected. In addition to introducing various new requirements, it will also overhaul existing legal provisions related to notice, user consent and rights of users with respect to their personal data. The following are some of the key compliances under the PDP Bill:

1. **Categorization of personal data:** Under the PDP Bill, there are three categories of personal data- normal personal data, sensitive personal data (“SPD”) and critical personal data (“CPD”). SPD is defined in the PDP Bill, and includes categories such as financial data, health data and official identifiers. CPD is yet to be defined. The PDP Bill provides for different kinds of obligations for different kinds of data. For example, all SPD must be stored in India, though it can be transferred outside India. CPD can only be stored in India, and cannot even be transferred abroad. This means that gaming companies will have to take technical measures to be able to segregate the personal data they collect into SPD and CPD. They may also have to store each category separately, as they will have to comply with different obligations for each category.
2. **Applying principles of personal data protection:** Most of the obligations in the PDP Bill are based on the following principles- (a) purpose limitation i.e. using the data only for such purposes as are directly related to the product/service offered to the user; for example, a Sudoku game does not need to collect the user’s location data; (b) collection limitation i.e. collecting only the necessary data points from users; for example, a card game app does not need to collect the user’s voice data; (c) Retention limitation i.e. the data should not be stored after its purpose has been achieved. All these principles need to be in-built into a company’s data collection and processing practices. Thus, under the PDP Bill, gaming companies will have to formulate a ‘privacy by design’ policy.<sup>798</sup> Among other things, it should mention- (a) business practices and technical systems designed to anticipate, identify and avoid harm to the user; (b) that the technology used by the gaming company is of a commercially accepted/ certified standard, and (c) that it protects user privacy at every stage of processing of PD. Additionally, gaming companies will need to implement security safeguards such as de-identification and encryption techniques and take other steps to prevent misuse or unauthorised access to PD.<sup>799</sup> They will also be responsible to report PD breaches to the DPA.<sup>800</sup>
3. **Notice and consent requirements:** Currently, the IT Act requires entities to take user consent for collecting SPDI,<sup>801</sup> though the industry practice is to take user consent for all categories of data. Businesses currently enjoy some flexibility in the manner of taking consent, but this may change with the PDP Bill.
  - 3.1. While gaming companies already provide some information to users before taking their consent,<sup>802</sup> the PDP Bill requires them to provide more information such as:<sup>803</sup> (a) users’ rights and how they can exercise them; (b) the source of a user’s PD (if it is not collected from her); (c) details of third-party sharing of PD; (d) about overseas PD transfers; (e) how her PD will be stored; (f) grievance redressal procedure; (g) about her right to file complaints with the proposed Data Protection Authority of India (“DPA”) under the PDP Bill.
  - 3.2. The other major change is in the manner of taking consent. Currently, most gaming companies display the hyperlinked terms and conditions and privacy policy, which the user consents to by merely pressing an ‘I agree’ button. However, this will not qualify as ‘valid’ consent under the PDP Bill, which has to be specific, clear, free and informed.<sup>804</sup> Gaming companies may even have to take the user’s ‘explicit consent’ in some situations. For example, they will have to take the user’s explicit consent for collecting her SPD, which will include allowing the user to consent separately for each category of SPD.<sup>805</sup>

4. **Rights of users under the PDP Bill:** Currently, the IT Act provides users only with the right to have their data corrected. However, the PDP Bill will provide users with additional rights which will have to be enforced by the gaming companies- (a) right to confirmation i.e. a user can request the gaming company for a summary of all the data collected and processed about her;<sup>806</sup> (b) right to correction and erasure i.e. a user has the right to ask the gaming company to correct any inaccurate/ misleading PD, complete any incomplete PD and erase PD that is not required for its original purpose;<sup>807</sup> (c) right to data portability i.e. the right to get her PD transferred to another gaming company;<sup>808</sup> (d) the right to be forgotten i.e. the user can ask the gaming company to stop disclosing her PD in certain situations, such as if the purpose for which her PD was collected has been achieved, or if she has withdrawn her consent for providing her PD.<sup>809</sup>
5. **Grounds for processing personal data:** The PDP Bill uses consent as the primary basis for allowing processing of personal data. Though it mentions other grounds as well,<sup>810</sup> it does not mention two important grounds- processing PD for contractual necessity and to meet legitimate business interests. Under the current position in the PDP Bill, gaming companies will have to take the user's consent for every instance of use of PD, including ordinary business uses which do not pose any privacy risks. This can result in 'consent fatigue' i.e. the user will either get too annoyed with the multiple consent notices, or they will just accede to the consent request without giving it too much thought.
6. **Classification as a 'significant data fiduciary':** A gaming company may be classified as a 'significant data fiduciary' ("SDF") under the PDP Bill.<sup>811</sup> The DPA may notify a gaming company as an SDF based on various parameters such as the volume and sensitivity of PD processed, turnover, harmfulness of the data processing activities and use of any new processing technologies. SDFs are subject to various additional obligations under the PDP Bill, including: (a) registration with the DPA; (b) conducting a data protection impact assessment;<sup>812</sup> (b) appointing a data protection officer;<sup>813</sup> (c) doing an annual audit of policies and processing operations,<sup>814</sup> and (d) maintaining records.<sup>815</sup> Thus, a gaming company that can qualify as an SDF will have to comply with various additional obligations.

"A privacy by design approach in the PDP Bill calls for structural changes and needs time to implement. The law isn't final yet, but many businesses, including gaming companies, are approaching us to help them prepare for the upcoming law."

- **Sreenidhi Srinivasan, Senior Associate, Ikgai Law**

Thus, it is evident that once the PDP Bill is enacted, all gaming companies will be subject to a host of new obligations. Importantly, these gaming companies will have to make changes to their technical architecture to be able to comply with these obligations. This will involve significant financial costs for these companies, many of whom are start-ups and may not be able to meet these requirements easily.

#### **Potential impact of the NPD report on the gaming industry**

NPD is defined as 'data that is not personal data, or when it is without any personally identifiable information'.<sup>816</sup> In September 2019, the government appointed a committee to examine NPD and suggest a framework for regulating it.<sup>817</sup> The committee released its report ("**NPD Report**") in July 2020, proposing a new law and new regulator for NPD.<sup>818</sup>

Among other proposed requirements, the most important recommendation in the NPD Report is on data sharing requirements. Any raw data in the form of anonymised datasets will qualify as community NPD,<sup>819</sup> and will have to be mandatorily shared by 'data businesses' with the government and other start-ups without any compensation.<sup>820</sup> 'Data businesses' are a new category of entities proposed in the NPD Report. They will be classified on the basis of a 'data related threshold', such as volume of data collected by the entity, or volume of data processed by the entity.<sup>821</sup> Among other things, once a data business has exceeded set limits of data traffic/collection, data businesses will have to make available meta-data about the NPD collected by it in open access data repositories.<sup>822</sup> Based on these repositories, any business/start-up, individual or the government can raise a request for the underlying dataset of the data business.<sup>823</sup> Where such NPD qualifies as raw/factual community NPD, then the data business will have to share such NPD for free. Even in case there is some 'value-add' to the raw NPD, mandatory sharing will be required with provision for compensation on a fair, reasonable and non-discriminatory basis.<sup>824</sup>

Importantly, mandatory data sharing requirements may not necessarily apply only to data businesses. There are other grounds under which the government can force businesses to share NPD, such as national security, core public interest purposes (such as policy making or for delivery of public services), or for 'important NPD' in a sector for specific purposes.<sup>825</sup>

There are many gaming companies in India which may possibly qualify as a 'data business' under the proposed framework in the NPD Report. Gaming companies also generate a lot of NPD which gives them insight about user behavior, user preferences, key performance indicators like DAUs, MAUs and ARPU. Such information typically constitutes proprietary knowledge, and gives gaming companies a unique edge over their competitors. If businesses are forced to share their NPD with other business/startups in the gaming industry, it will disincentivize them from developing innovative gaming products. Given that gaming is a highly niche industry with a growing but small number of players, such proposals will significantly impact the industry. Considering the nascent stage of growth of the gaming industry, a forced sharing requirement for NPD will adversely impact the industry's overall growth. It will also discourage investors and VC firms from investing in India's gaming industry.

## RECOMMENDATIONS

1. On the PDP Bill: Some of the obligations in the PDP Bill may prove to be too onerous to implement for gaming companies, especially gaming startups. The PDP Bill must strike a balance between protecting user privacy, and allowing innovation in a rapidly growing but nascent industry in India. It should accommodate novel products and business models while ensuring meaningful control to users. For example, the grounds for processing personal data under the PDP Bill should be expanded to also include contractual purposes and legitimate business interests. This will benefit both the gaming companies and the users.
2. On the proposed NPD governance framework: The gaming industry should be exempted from the application of any future NPD framework that the government may enact. Other than the harms of imposing mandatory data sharing requirements on the gaming industry, the NPD collected by gaming companies is very niche and specific. Because of the very nature of the gaming industry, gaming-related NPD cannot provide any 'public interest' benefit or national security insights to the government. They can only offer business related insights specific to the gaming industry, which businesses are legally entitled to protect as their business asset.

## COVID-19 AND DIGITAL GAMES

The Covid-19 pandemic has affected the world at large. Frequent lockdowns and limited mobility not only pushed businesses to shut shop, but also impacted our ability to lead ‘normal’ lives. Interestingly, while most games witnessed an uptake in users, fantasy sports suffered due to the suspension of physical sports tournaments.<sup>826</sup> Amidst this, digital games emerged as a recreation tool and have helped keep morale high. Smartphone use is at a record level and most of it is attributed to digital games. People have turned to digital games to overcome loneliness, stay in touch with friends and family, and divert attention from the pandemic. In fact, the World Health Organisation (“WHO”), which had once classified gaming as a mental disorder, advised people to stay indoors and play games.

### Digital games for self-care

With limited outlets of entertainment, people have turned to games to take a break, rejuvenate, and relax. Some have benefited from the immersive power of games to deal with their anxiety around the pandemic. To help users during this difficult time, some developers also offered their games for free or at steep discounts. In March, indie game developer Vlambeer announced that its game, *Nuclear Throne* could be purchased for 90% off the regular price to help people ‘boost up’ during this time.<sup>827</sup>

### Digital games to maintain social connection

Multiplayer games have provided virtual spaces for friends and family to meet during the pandemic. Applications like *HouseParty* allow people to play virtual party games while games like *Bunch* offer digital version of physical games like Trivia, Charades and Scrabble to the users.<sup>828</sup> Nintendo’s recently released *Animal Crossing: New Horizons*, allows users to meet, socialize and complete in-game tasks together on a virtual island. Since these games encourage and require users to work together towards a goal, they foster a sense of community and camaraderie.<sup>829</sup>

#### Finding a cure for Covid-19

Games have been used to solve complex problems. For instance, *Foldit* is a game where users solve puzzles to identify protein structure of viruses and other diseases. Previously used to find a cure for HIV,<sup>830</sup> scientists are now using *Foldit* to find a cure for Covid-19 - by helping researchers study the protein structure of coronavirus carefully and come up with solutions to halt Covid-19 infections.

### Digital games to spread awareness

Digital games have been used to educate wider audiences about the pandemic and the precautions to battle it. *Survivor Covid-19*, a game developed by students of IIT-Tirupati, requires players to dodge infected people and objects and collect PPE kits for protection.<sup>831</sup> The Union Health Ministry also launched *The Corona Fighters* to teach people the right tools and behaviours to fight Covid-19 through digital games.<sup>832</sup> WHO also launched a twitter movement #PlayApartTogether to encourage people to follow WHO’s social distancing guidelines.<sup>833</sup> Companies like Riot Games, Activision Blizzard, Twitch, YouTube Gaming, and India-based Nodwin Gaming participated in this campaign, by offering freebies to encourage users to stay home and play digital games.<sup>834</sup>

## CONCLUSION

Digital games are no longer purely recreational products. The industry has matured over the past decade with developers creating games for social impact. The Covid-19 pandemic is a ready example. Amidst the uncertainty and fear brought by the pandemic, digital games helped the society to overcome several challenges – whether it be to battle loneliness, stay connected with loved ones, or spread awareness among masses. Students benefitted from gamified education whereas businesses were able to streamline hiring. In fact, with the game *Foldit*, meant to help researchers study the protein structure of coronavirus, attempts have been made to finding the pandemic's cure using digital games!

Currently a USD 150 billion global market, the digital games and sports industry offers a sea of opportunities to the Indian economy. But it needs the right support from the government and law makers to unlock its full potential. For instance, ambiguity and the changing nature of state laws strike at the core of a gaming business, often pushing companies to rehash business models. To attract innovation and investments in this sector, the first step is to create clear and uniform laws. Policies to promote local gaming content and incentivize Indian game developers, and initiatives to upskill the youth will serve as important building blocks to India's digital future.

Harnessing the gaming sector will give huge economic returns to India. The industry's potential to create jobs, generate revenue, and attract foreign investment is huge as we discussed in Chapter 1. In line with India's vision for a 'Digital India', opportunities in this sector are aplenty; and it may be the right time for the government and policy makers to capitalize on its growth.

## ANNEXURE

### Rating for abusive language content

NATURE OF CONTENT	RATING SYSTEM FOR DIGITAL GAMES ACROSS JURISDICTIONS				
	PEGI (EU)	ACB (Australia)	ClassInd (Brazil)	IMDAI (Singapore)	ESRA (Iran)
Abusive language	3+ No bad language should be heard.	G (general audience) Coarse language should be very mild and infrequent and justified by context.	N.A.	16 and above Coarse language such as the use of the expletive "f**k".	E (everyone) Infrequent use of mild language (Mild use of profanity)
	12+ Any bad language in this category must be mild.	PG (under 15 with parental guidance) Coarse language should be mild and infrequent, and be justified by context.			10+ Use of mild language
	16+ Use of bad language in can be extreme	M (above 15) Coarse language may be used. Aggressive or strong coarse language should be infrequent and justified by context.			Teen (13+) Infrequent use of strong language (Explicit and/or frequent use of profanity)
		M (above 15 with mature accompanied) Aggressive and very strong coarse language may be used but it should not be exploitative		18 and above Frequent use of strong coarse language, such as motherfucker, cunt, and cocksucker	Mature (17+) Use of strong language
		R (18+) Coarse language is virtually unrestricted.			

### Rating for violent content

NATURE OF CONTENT	RATING SYSTEM FOR DIGITAL GAMES ACROSS JURISDICTIONS				
	PEGI (EU)	ACB (Australia)	ClassInd (Brazil)	IMDAI (Singapore)	ESRA (Iran)
Violent including sexual violence	3+ Mild violence in comical or childlike setting	G (general audience) Low sense of threat or menace	Under 10 Fantasy violence	16 and above Moderate level of violence. Realistic but not excessively graphical violence with depiction of blood.	E (everyone) Minimal fantasy, mild or cartoon violence
	7+ Non-realistic or non-detailed violence	PG (under 15 with parental guidance) Mild and infrequent violence justified by context. Sexual violence is prohibited	Under 12 Display of arms with violence		10+ May contain more cartoon or fantasy violence
	12+ Violence of a graphical nature towards fantasy characters or non-realistic violence towards human-like characters	M (above 15) Moderate violence if justified by context. Limited sexual violence.	Under 14 Violent act; body injury; violence references; sight of blood.		13+ Violence involving aggressive conflict including bloodless dismemberment
	16+ Realistic violence comparable with real life experience	MA (above 15 with mature accompanied) High degree and realistic violence justified by	Under 16 Intentional death; social stigma/prejudice.		18 and above Depictions of realistic violence, such as killing,

		context. Stylised violence can be more detailed.		maiming or causing serious injury to human characters.	conflict with blood, gore.
	18+ Depiction of gross violence, motiveless killing, or violence towards defenceless characters.	R (restricted to above 18) Realistic and explicit violence allowed unless it is frequently gratuitous, cruel, exploitative and offensive to a reasonable adult.	Under 18 Rape; sexual exploitation and coercion; torture; mutilation; suicide.		18+ May contain prolonged scenes of intense violence.
			Above 18 Violence of high impact; exaltation, glamorization or violence praising		

**Rating for sexual content**

NATURE OF CONTENT	RATING SYSTEM FOR DIGITAL GAMES ACROSS JURISDICTIONS				
	PEGI (EU)	ACB (Australia)	ClassInd (Brazil)	IMDAI (Singapore)	ESRA (Iran)
<b>Sex and nudity</b>	12+ Sexual innuendo or sexual posturing can be present	MA (above 15 with mature accompanied) Sexual activity may be “discreetly implied” or “simulated”. Nudity is permitted, but in it should not be exploitative.	Under 10 Non-erotic nudity.	16 and above Portrayal of implied sexual activity. Nudity without details, e.g. no nipples, genitalia or pubic region (includes hair). Still or moving images which may be mildly suggestive e.g. scantily-clad women in bikinis or lingerie.	17+ May contain sexual content. Non-explicit depictions of sexual behaviour, possibly including partial nudity
	16+ Sexual activity reaches a stage that looks the same as expected in real life		Under 12 Educational contents about sex.		
	18+ Explicit sexual activity can be showcased		R (restricted to above 18) Sexual activity can be realistically simulated, but depiction of actual sexual activity is not permitted. Nudity in a sexual context should not include obvious genital contact.	Under 14 Veiled nudity; sexual innuendo; sexual fondling; masturbation; coarse language; sex references; sex simulation; sexual appeal.	
		Under 16 Moderated nudity; erotization; crude language; sexual intercourse; prostitution.		18 and above Portrayal of non-detailed sexual activity with some frontal nudity. Depictions of same-sex kissing and hugging. Nudity should not titillate or be the main feature of the game. Still or moving images which may be sexually titillating (but does not contain nudity), e.g. scantily-clad women shown in a manner that is sexual.	
		Under 18 Total nudity; intense sexual intercourse.			
		Above 18 Explicit sex			

**Rating for substance abuse**

NATURE OF CONTENT	RATING SYSTEM FOR DIGITAL GAMES ACROSS JURISDICTIONS				
	PEGI (EU)	ACB (Australia)	ClassInd (Brazil)	IMDAI (Singapore)	ESRA (Iran)
<b>Substance abuse</b>	16+ Alcohol or illegal drugs can be present	G (general audience) Drug use should be implied only very discreetly	Under 10 Moderate or suggestive use of legal drugs.	16 and above Depiction of drug or psychoactive substance abuse which is incidental to the game and not realistic.	-xx-
		PG (under 15 with parental guidance) Drug use should be justified by context.	Under 12 References to the use of legal drugs; discussion on the issue drug trafficking; medicinal use of illegal drugs.		
	18+ The glamorisation of the use of illegal drugs should fall into this age category.	M (above 15) Drug use should be justified by context.	Under 14 Use of legal drugs; inducing the use of legal drugs; medication misuse; illegal drugs references.	18 and above There may be realistic depiction of drug or psychoactive substance abuse, if it does not promote abuse.	-xx-
		MA (above 15 with mature accompanied) Drug use may be depicted, but not in an advocacy manner.	Under 16 Suggestive use of illegal drugs; references to the use or trafficking of illegal drugs; discussion on the decriminalization of illegal drugs		
		R (18+) Drug use can be shown but not gratuitously detailed and should also not be promoted or encouraged. For computer games, drug use related to incentives and rewards is not permitted.	Under 18 Production or trafficking of any illegal drug; use of illegal drugs; inducing the use of illegal drugs		
			Above 18 Praising of the use of illegal drugs		

## END NOTES

- <sup>1</sup> AIGF and Maple Capital Advisors, Gaming: India Story, August 2020; [https://www.business-standard.com/article/economy-policy/indian-gaming-biz-growing-at-22-to-be-valued-at-3-75-bn-by-2024-report-120052601096\\_1.html](https://www.business-standard.com/article/economy-policy/indian-gaming-biz-growing-at-22-to-be-valued-at-3-75-bn-by-2024-report-120052601096_1.html); <https://www.newsbreak.com/news/1575970171911/indian-gaming-industry-attracted-350-million-vc-between-2014-2020-to-see-41-growth-annually>; and <https://qrius.com/forecast-of-indian-gaming-industry/>.
- <sup>2</sup> <https://venturebeat.com/2020/05/08/newzoo-2-7-billion-gamers-will-spend-159-3-billion-on-games-in-2020/>.
- <sup>3</sup> <https://www.firstpost.com/tech/gaming/easy-affordable-and-varied-how-no-frills-mobile-gaming-industry-thrives-in-india-8598931.html>.
- <sup>4</sup> <https://newzoo.com/insights/articles/newzoo-games-market-numbers-revenues-and-audience-2020-2023/>.
- <sup>5</sup> <https://blog.apollovin.com/hypr-games-hyper-casual-games-indian-market/>.
- <sup>6</sup> <https://www.gaming360.in/growth-of-india-poker-industry/>.
- <sup>7</sup> <https://www.financialexpress.com/brandwagon/30-40-users-play-online-fantasy-sports-on-more-than-one-platform-fifs-kpmg-report/2018536/#:~:text=The%20Indian%20Online%20Fantasy%20Sports,in%20collaboration%20with%20KPMG%20revealed>.
- <sup>8</sup> Inc42, Esports in India: Market Landscape Report 2020 (September 2020). See, <https://inc42.com/reports/esports-in-india-market-landscape-report-2020/>.
- <sup>9</sup> <https://www.bloomsburycollections.com/book/social-casual-and-mobile-games-the-changing-gaming-landscape/ch19-reflections-on-the-casual-games-market-in-a-post-gamergate-world.pdf?dl>.
- <sup>10</sup> <https://techjury.net/stats-about/mobile-gaming/#gref>.
- <sup>11</sup> <https://www.expresscomputer.in/features/casual-gaming-comes-of-age/38530/>.
- <sup>12</sup> <https://www.firstpost.com/tech/gaming/easy-affordable-and-varied-how-no-frills-mobile-gaming-industry-thrives-in-india-8598931.html>.
- <sup>13</sup> <http://cmrindia.com/the-future-of-mobile-gaming-is-female-cmr/>.
- <sup>14</sup> <http://www.clairfield.com/wp-content/uploads/2017/02/Gaming-Industry-and-Market-Report-2018.01-2.pdf>.
- <sup>15</sup> <https://www.statista.com/statistics/739581/casual-games-market-share-india/>.
- <sup>16</sup> <https://blog.apollovin.com/hypr-games-hyper-casual-games-indian-market/>.
- <sup>17</sup> <https://www.firstpost.com/tech/gaming/easy-affordable-and-varied-how-no-frills-mobile-gaming-industry-thrives-in-india-8598931.html>.
- <sup>18</sup> <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/risk/in-risk-SkillGamingSurvey-noexp.pdf>.
- <sup>19</sup> <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/risk/in-risk-SkillGamingSurvey-noexp.pdf>.
- <sup>20</sup> <https://www.moneycontrol.com/news/technology/the-parallel-world-of-gaming-and-smartphones-with-rummycircle-leading-the-front-3552551.html>.
- <sup>21</sup> <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/risk/in-risk-SkillGamingSurvey-noexp.pdf>.
- <sup>22</sup> <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/risk/in-risk-SkillGamingSurvey-noexp.pdf>.
- <sup>23</sup> <https://www.aesf.com/en/About-Us/What-Is-Esports.html>.
- <sup>24</sup> <https://www.thegamer.com/rules-you-didnt-know-esports-players-need-to-follow/>.
- <sup>25</sup> <https://www2.deloitte.com/us/en/insights/industry/technology/digital-media-trends-consumption-habits-survey/trends-in-gaming-esports.html>.
- <sup>26</sup> [https://inc42.com/reports/esports-in-india-market-landscape-report-2020/?utm\\_source=adespresso&utm\\_medium=cpc&utm\\_campaign=audiencesegmentation\\_gaming&utm\\_term=plus&utm\\_content=report&fbclid=IwAR2-OGZ2yfdz9fkliEh6WSXaxtFu0clmK8qRlOK5U5GFWJEgucac\\_QSDw](https://inc42.com/reports/esports-in-india-market-landscape-report-2020/?utm_source=adespresso&utm_medium=cpc&utm_campaign=audiencesegmentation_gaming&utm_term=plus&utm_content=report&fbclid=IwAR2-OGZ2yfdz9fkliEh6WSXaxtFu0clmK8qRlOK5U5GFWJEgucac_QSDw).
- <sup>27</sup> <https://assets.kpmg/content/dam/kpmg/in/pdf/2019/03/online-gaming-india-fantasy-sports.pdf>.
- <sup>28</sup> In Fortnite, players can buy 'V-Bucks' as currency. V-Bucks are tradeable for skill multipliers, wearable virtual costumes, physical 'emotes' and personalized avatar. See, <https://www2.deloitte.com/us/en/insights/industry/technology/technology-media-and-telecom-predictions/esports-viewership.html>.
- <sup>29</sup> PUBG released a Royale Pass to generate USD 6.6 million in less than a week. See, <https://timesofindia.indiatimes.com/companies/money-game-the-growing-biz-of-pubg-and-its-star-players/articleshow/70839265.cms>.
- <sup>30</sup> [https://www2.deloitte.com/content/dam/insights/us/articles/de22694-lets-play/D1\\_Lets-play.pdf](https://www2.deloitte.com/content/dam/insights/us/articles/de22694-lets-play/D1_Lets-play.pdf).
- <sup>31</sup> Inc42, Esports In India: Market Landscape Report 2020 (September 2020). See, [https://inc42.com/reports/esports-in-india-market-landscape-report-2020/?utm\\_source=adespresso&utm\\_medium=cpc&utm\\_campaign=audiencesegmentation\\_gaming&utm\\_term=plus&utm\\_content=report&fbclid=IwAR2-OGZ2yfdz9fkliEh6WSXaxtFu0clmK8qRlOK5U5GFWJEgucac\\_QSDw](https://inc42.com/reports/esports-in-india-market-landscape-report-2020/?utm_source=adespresso&utm_medium=cpc&utm_campaign=audiencesegmentation_gaming&utm_term=plus&utm_content=report&fbclid=IwAR2-OGZ2yfdz9fkliEh6WSXaxtFu0clmK8qRlOK5U5GFWJEgucac_QSDw).
- <sup>32</sup> In a survey, 71% respondents were found to use fantasy sports platforms for cricket, 54% for football, 6% for kabaddi and 5% for basketball. The cumulative of more than 100 reflects engagement of users in multiple fantasy sport. See, <https://assets.kpmg/content/dam/kpmg/in/pdf/2019/03/online-gaming-india-fantasy-sports.pdf>.
- <sup>33</sup> <https://www.financialexpress.com/industry/technology/fantasy-sports-to-have-100-million-users-in-india-by-2019-the-journey-has-just-begun-harsh-jain-chairman-ifsp-ceo-dream11/1207258/>.
- <sup>34</sup> <https://telanganatoday.com/india-online-fantasy-sports-in-top-gear-users-expected-to-reach-100-million>.
- <sup>35</sup> <https://www.technavio.com/report/fantasy-sports-market-industry-analysis>.
- <sup>36</sup> <https://www.livemint.com/industry/media/indian-fantasy-sports-platforms-report-three-fold-jump-in-fy20-revenue-report-11594294002219.html>.
- <sup>37</sup> <https://www.livemint.com/news/india/india-now-has-over-500-million-active-internet-users-iamai-11588679804774.html>.
- <sup>38</sup> <https://www.india-briefing.com/news/investing-indias-online-gaming-sector-market-profile-growth-drivers-20440.html/>.
- <sup>39</sup> <https://techjury.net/stats-about/mobile-gaming/#gref>.
- <sup>40</sup> Kristine Jørgensen, 'Audio and Gameplay: An Analysis of PvP Battlegrounds in World of Warcraft', available at <http://gamestudies.org/0802/articles/jorgensen>.
- <sup>41</sup> <https://www.longdom.org/open-access/the-influence-of-background-music-of-video-games-on-immersion-2161-0487-1000191.pdf>.
- <sup>42</sup> <https://medium.com/abora-io/why-the-future-of-gaming-is-powered-by-voice-812aa110cd7a>.
- <sup>43</sup> WCC is a cricket game developed by Next wave Multimedia, a subsidiary of Nazara Games. See, <http://bwdisrupt.businessworld.in/article/Commentator-Aakash-Chopra-Joined-World-Cricket-Championship/27-04-2020-190380/>; and <https://www.thestatesman.com/sports/matthew-hayden-to-do-commentary-for-online-game-world-cricket-championship-1502887863.html>.
- <sup>44</sup> <https://inc42.com/buzz/startups-vs-covid19-vcs-brace-for-slowdown-as-portfolio-protection-takes-centre-stage/>.
- <sup>45</sup> <https://www.pokerstars.in/help/articles/sound-settings/11070/>.
- <sup>46</sup> [https://www.bbc.co.uk/news/resources/idt-sh/top\\_scores\\_video\\_game\\_music](https://www.bbc.co.uk/news/resources/idt-sh/top_scores_video_game_music).
- <sup>47</sup> <https://clevertap.com/case-study/fantasy-sports-dream11-retains-5x-customers/>.
- <sup>48</sup> <https://www.abora.io/en/blog/bringing-interactive-broadcasting-to-daily-sports-fantasy-leagues>.
- <sup>49</sup> Artificial intelligence means developing computers such that they have human like capabilities including reasoning, learning and rectification.
- <sup>50</sup> <https://yellowrobot.com/how-artificial-intelligence-is-shaping-the-online-gaming-industry/>.
- <sup>51</sup> <https://pdfs.semanticscholar.org/5e9d/55395e29b571d0dd2407ce936971a056274b.pdf>.
- <sup>52</sup> <https://www.theverge.com/2019/3/6/18222203/video-game-ai-future-procedural-generation-deep-learning>.
- <sup>53</sup> Data analytics is a process that uses technology to compute data and draw conclusions from a given data set. It is a method that presents large amounts data effectively. See, <https://files.eric.ed.gov/fulltext/ED536788.pdf>.
- <sup>54</sup> <https://analyticsindiamag.com/mobile-premier-league-taps-into-ai-analytics-to-corner-the-943-mn-gaming-market-in-india/>.
- <sup>55</sup> <https://www.tajrummynetwork.com/trm/trm-why-us/>.
- <sup>56</sup> <https://picante.today/technology/2019/11/18/113955/nodwin-gaming-in-partnership-with-blink-delivers-autonomous-content-creation-from-live-games/>.
- <sup>57</sup> <https://analyticsindiamag.com/dream-11-is-upping-the-fantasy-game-market-with-its-ai-powered-platform/>.
- <sup>58</sup> <https://www.thenewsminute.com/article/chennai-startup-powering-cricket-fantasy-leagues-its-ai-based-tech-107115>.
- <sup>59</sup> Cloud gaming renders an interactive gaming application remotely in the cloud and streams the scenes as a video sequence back to the player over the internet. See, <https://www.sfu.ca/~rws1/papers/Cloud-Gaming-Architecture-and-Performance.pdf>.
- <sup>60</sup> <https://stadia.google.com/>.
- <sup>61</sup> <https://medium.com/datadriveninvestor/clash-of-business-models-the-gaming-industrys-runtime-error-b1eac33d2243>.
- <sup>62</sup> <https://www.howto Geek.com/160851/htg-explains-what-is-cloud-gaming-and-is-it-the-future/>.
- <sup>63</sup> <https://medium.com/cldcvr/rummycircle-pioneer-of-online-gaming-in-india-85bc6d811646>.
- <sup>64</sup> <https://venturebeat.com/2020/04/28/pubg-comes-to-google-stadia/>.
- <sup>65</sup> <https://www.3rockar.com/augmented-reality-changing-world-gaming/>.
- <sup>66</sup> <https://www.tomsguide.com/us/best-vr-headsets-review-3550.html>.
- <sup>67</sup> <https://nielsenports.com/reports/esports-playbook-2017/>.
- <sup>68</sup> <https://www.thehindubusinessline.com/markets/nazara-tech-all-set-to-enter-offline-gaming-market-with-instantportz/article2469828.ecce>.
- <sup>69</sup> <https://vrpro.sachinsaga.com/about-the-game/>.
- <sup>70</sup> <https://pokerindustrypro.com/news/article/210886-pokerstars-announces-virtual-reality-tour-and-searches-vr>.
- <sup>71</sup> Score boosting is when a user allows another user to play from her account to increase their level or leader board standings. See, [https://documents.trendmicro.com/assets/white\\_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf](https://documents.trendmicro.com/assets/white_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf).

<sup>72</sup> This artificially improves performance of players at the disadvantage of others in esports tournaments. Esport teams use programmable mouse which allows them to perform movements impossible without macros (shortcut of pre-set sequences). See, <https://www.engadget.com/2018/06/25/dota-2-kicked-15-million-illegal-mouse/>; and [https://documents.trendmicro.com/assets/white\\_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf](https://documents.trendmicro.com/assets/white_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf).

<sup>73</sup> Aim bots are a type of software used in multiplayer first-person shooter games to provide varying levels of automated targeting that gives the user an advantage over other players. See, [https://documents.trendmicro.com/assets/white\\_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf](https://documents.trendmicro.com/assets/white_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf).

<sup>74</sup> Wallhacks allow the player to change the properties of in-game walls by making them transparent or non-solid, making it easier to locate or attack enemies. See, [https://documents.trendmicro.com/assets/white\\_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf](https://documents.trendmicro.com/assets/white_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf).

<sup>75</sup> <https://home.kpmg/mt/en/home/insights/2019/04/how-artificial-intelligence-is-revolutionising-esports.html>

<sup>76</sup> <https://www.idfy.com/post/design-a-stunning-blog>.

<sup>77</sup> <https://www.livemint.com/companies/people/-we-are-a-technology-platform-gaming-is-just-incident-pandya-1556183361086.html>.

<sup>78</sup> <https://www.pcgamesinsider.biz/news/68612/pubg-corp-turns-to-machine-learning-to-stop-cheaters-over-250-arrested-in-china-and-korea-for-selling-hacks/>

<sup>79</sup> Automated segmentation is using machine learning to segment datasets and look for hidden patterns. See, <https://www.aitrends.com/machine-learning/ai-customer-targeting-levels/>; and <https://medium.com/mydfs/can-cloud-technology-be-game-changing-for-fantasy-sports-57a981a5bb78>.

<sup>80</sup> <https://analyticsindiamag.com/dream-11-is-upping-the-fantasy-game-market-with-its-ai-powered-platform/>.

<sup>81</sup> [https://documents.trendmicro.com/assets/white\\_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf](https://documents.trendmicro.com/assets/white_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf).

<sup>82</sup> <https://analyticsindiamag.com/ai-cheating-video-game-companies/>

<sup>83</sup> <https://analyticsindiamag.com/ai-cheating-video-game-companies/>

<sup>84</sup> <https://analyticsindiamag.com/ai-cheating-video-game-companies/>

<sup>85</sup> <https://www.tajrummy.com/online-rummy-terms&conditions/>

<sup>86</sup> <https://www.pokerstars.in/tos/>

<sup>87</sup> <https://www.dream11.com/games/fantasy-cricket/termsandconditions>

<sup>88</sup> <https://blockchain.news/news/the-rise-of-massively-multiplayer-online-games-being-built-on-blockchain>

<sup>89</sup> <https://medium.com/crowdbotics/examples-of-blockchain-games-and-how-they-work-7fb0a1e76e2e>

<sup>90</sup> Ratul Roshan, Blockchain technology in online gaming, available at <https://www.ikigilaw.com/blockchain-technology-in-online-gaming/>. See also, <https://medium.com/crowdbotics/examples-of-blockchain-games-and-how-they-work-7fb0a1e76e2e>.

<sup>91</sup> <https://hackernoon.com/building-blockchain-games-with-confidentiality-9a51ec98e37e>.

<sup>92</sup> <https://www.roundhillinvestments.com/blog/esports-viewership-vs-sports>.

<sup>93</sup> <https://www.roundhillinvestments.com/blog/esports-viewership-vs-sports>.

<sup>94</sup> [https://documents.trendmicro.com/assets/white\\_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf](https://documents.trendmicro.com/assets/white_papers/wp-threats-to-the-esports-industry-in-2019-and-beyond.pdf).

<sup>95</sup> <https://newzoo.com/insights/trend-reports/newzoo-global-esports-market-report-2020-light-version/>.

<sup>96</sup> <https://venturebeat.com/2020/01/09/facebook-gaming-grows-210-in-2019-as-it-battles-twitch-youtube/>.

<sup>97</sup> <https://gadgets.ndtv.com/games/features/youtube-gaming-live-video-game-streaming-india-gamers-ines-cha-2147975>.

<sup>98</sup> <https://www.trackalytics.com/youtube/user/pewdiepie/>.

<sup>99</sup> <https://www.youtube.com/user/sam14319>

<sup>100</sup> <https://www.youtube.com/channel/UC7Q7p0z0MrdayvmAnchJJQ>

<sup>101</sup> <https://in.pokernews.com/news/2018/12/matchpl-season-3-india-s-first-ever-televised-poker-event-t-32210.htm>

<sup>102</sup> <https://brandequity.economictimes.indiatimes.com/news/media/dsport-becomes-poker-sports-leagues-broadcast-partner/62365015>

<sup>103</sup> <https://esportsobserver.com/nodwin-mtv-india-show/>

<sup>104</sup> <https://esportsobserver.com/nodwin-mtv-india-show/>

<sup>105</sup> <https://www.airtel.in/press-release/05-2020/nodwin-gaming-and-airtel-announce-partnership-to-take-esports-in-india-to-the%20next-level>.

<sup>106</sup> <https://esportsobserver.com/nodwin-mtv-india-show/>

<sup>107</sup> <https://economictimes.indiatimes.com/small-biz/startups/esports-opens-for-indian-gamers-in-global-fields/articleshow/56491257.cms?from=mdr>

<sup>108</sup> <https://www.forbes.com/sites/suparnadutt/2018/03/09/how-online-gaming-in-india-is-growing-fast-into-a-billion-dollar-market/#654b60de55b6>

<sup>109</sup> [https://www.business-standard.com/article/sports/dream11-wins-title-sponsorship-for-indian-premier-league-2020-for-rs-250-cr-120081800831\\_1.html](https://www.business-standard.com/article/sports/dream11-wins-title-sponsorship-for-indian-premier-league-2020-for-rs-250-cr-120081800831_1.html).

<sup>110</sup> <https://tubularlabs.com/research-guides/fortnite-changed-youtube-game/>.

<sup>111</sup> <https://www.youtube.com/channel/UCOjVEB2ebQbXfwdBJTjOBA>.

<sup>112</sup> <https://www.youtube.com/user/Pokerstars>.

<sup>113</sup> <https://tubularlabs.com/research-guides/fortnite-changed-youtube-game/>.

<sup>114</sup> <https://www.forbes.com/sites/tjmecue/2019/02/28/fortnite-is-changing-youtube-and-impacting-marketing/#79a3b48060fa>

<sup>115</sup> <https://www.pokerstars.com/en/blog/lee-jones-journal/2017/discord-is-here-166218.shtml>.

<sup>116</sup> <https://www.rummycircle.com/promotions/rummy-summer-party.html>.

<sup>117</sup> <https://www.bgr.in/news/fantasy-sports-platform-dream11-targets-100-million-users-by-2020-claims-its-legal-in-india-810759/>.

<sup>118</sup> <https://www.gamify.com/gamification-blog/marketing-on-hyper-casual-games-101>

<sup>119</sup> <https://afkgaming.com/articles/esports/News/4043-nodwin-gaming-announces-esl-india-premiership-2020-featuring-a-115-crore-prize-pool>.

<sup>120</sup> <https://www.livemint.com/Home-Page/Ktj9Id0SXZEohw4u0SPiHL/300000-prize-pool-ESL-One-Dota-2-esports-tournament-in-Ind.html>.

<sup>121</sup> Inc42, Esports In India: Market Landscape Report 2020 (September 2020). See, [https://inc42.com/reports/esports-in-india-market-landscape-report-2020/zutm\\_source=adespresso&utm\\_medium=cpc&utm\\_campaign=audiencesegmentation\\_gaming&utm\\_term=plus&utm\\_content=report&fbclid=IwAR2-OGZ2yFDz9fkiEh6WSXaxtEu0cLmK8qRlOK5UusGFWIEgucac\\_QSDw](https://inc42.com/reports/esports-in-india-market-landscape-report-2020/zutm_source=adespresso&utm_medium=cpc&utm_campaign=audiencesegmentation_gaming&utm_term=plus&utm_content=report&fbclid=IwAR2-OGZ2yFDz9fkiEh6WSXaxtEu0cLmK8qRlOK5UusGFWIEgucac_QSDw).

<sup>122</sup> <https://about.mpl.live/terms/>.

<sup>123</sup> <https://www.tajrummy.com/online-rummy-refer-a-friend-win-bonus-cash/>.

<sup>124</sup> <https://www.pokerstars.in/stars-rewards/>.

<sup>125</sup> <https://economictimes.indiatimes.com/industry/media/entertainment/pokerstars-india-signs-nawazuddin-siddiqui-as-brand-ambassador/articleshow/68221360.cms?from=mdr>

<sup>126</sup> <https://about.dream11.com/partners.html>.

<sup>127</sup> <https://www.exchange4media.com/marketing-news/indian-e-sports-arena-booming-as-an-industry-for-marketers-97350.html>

<sup>128</sup> <https://www.marketingmind.in/uri-smartly-movie-promotion-planning-surgical-strike-pubg/>

<sup>129</sup> <https://www.sportskeeda.com/esports/pubg-mobile-alan-walker-collaboration-for-first-year-anniversary-ss>

<sup>130</sup> <https://www.theverge.com/2019/3/1/18245926/fortnite-weezer-black-album-collaboration-creative-mode>

<sup>131</sup> <https://www.ironsrc.com/in-game-advertising/>

<sup>132</sup> <https://www.chartboost.com/blog/5-ways-to-advertise-your-brand-with-mobile-games/>

<sup>133</sup> <https://trendjackers.com/the-past-present-future-of-advertising-within-video-games/>

<sup>134</sup> <https://brandequity.economictimes.indiatimes.com/news/advertising/pokkt-sets-new-digital-advertising-benchmark-along-with-nazara/68920448>.

<sup>135</sup> <https://www.forbes.com/sites/mattgardner1/2020/04/06/british-video-games-combat-coronavirus-by-adding-stay-at-home-adverts/#694f7f682ab4>.

<sup>136</sup> <https://www.kickstarter.com/projects/numinousgames/that-dragon-cancer>.

<sup>137</sup> <https://www.appscanlab.com/games/chhota-bheem-swachh-bharat-run>.

<sup>138</sup> Press Trust of India, Karnataka government, MPL to hold online chess tournament to raise funds, 27 April 2020, available at [https://www.business-standard.com/article/pti-stories/karnataka-government-mpl-to-hold-online-chess-tournament-to-raise-funds-120042700756\\_1.html](https://www.business-standard.com/article/pti-stories/karnataka-government-mpl-to-hold-online-chess-tournament-to-raise-funds-120042700756_1.html).

<sup>139</sup> <https://www.livemint.com/brand-post/pokerbaazi-com-round-table-india-organised-6th-edition-of-taare-zameen-par-11575029161795.html>

<sup>140</sup> <https://in.pokernews.com/news/2018/08/pokerbaazi-and-spartanpoker-tournaments-to-aid-kerala-flood-30917.htm>

<sup>141</sup> <https://www.livemint.com/brand-post/rummy-passion-launches-a-new-referral-programme-for-patrons-11576243100162.html>

<sup>142</sup> <https://brandequity.economictimes.indiatimes.com/news/marketing/nodwin-gaming-adopts-playaparttogether-campaign-for-india/75288284>

<sup>143</sup> <https://about.dream11.in/about-us>

<sup>144</sup> <https://www.dreamx.in/>.

<sup>145</sup> <https://brandequity.economictimes.indiatimes.com/news/advertising/pokkt-sets-new-digital-advertising-benchmark-along-with-nazara/68920448>

<sup>146</sup> <https://brandequity.economictimes.indiatimes.com/news/advertising/pokkt-sets-new-digital-advertising-benchmark-along-with-nazara/68920448>

<sup>147</sup> <https://www.chartboost.com/blog/5-ways-to-advertise-your-brand-with-mobile-games/>

<sup>148</sup> <https://pib.gov.in/PressReleasePage.aspx?PRID=1644229>

<sup>149</sup> [https://techcrunch.com/2020/06/26/newzoo-forecasts-2020-global-games-industry-will-reach-159-billion/?guccounter=1&guce\\_referrer=aHR0cHM6Ly93d3cuZ29vZ2xllmNvbS8&guce\\_referrer\\_sig=AQAAAB\\_wCZJmZE6RzsFVCBnlBkWSjDEx3Efb9tBktpe-uokwK-cxv E3\\_1JhMQE2Wp-OyFHCchumbx4cTtU45YszD-KN24T5phFgSzraDYilkaeUjEeHo8Ue6oVzpqL3ldN9XwDfz5t9LzjF8CRy9jnyATZdiyopJ8ou8ZgppRkPS](https://techcrunch.com/2020/06/26/newzoo-forecasts-2020-global-games-industry-will-reach-159-billion/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xllmNvbS8&guce_referrer_sig=AQAAAB_wCZJmZE6RzsFVCBnlBkWSjDEx3Efb9tBktpe-uokwK-cxv E3_1JhMQE2Wp-OyFHCchumbx4cTtU45YszD-KN24T5phFgSzraDYilkaeUjEeHo8Ue6oVzpqL3ldN9XwDfz5t9LzjF8CRy9jnyATZdiyopJ8ou8ZgppRkPS).

150 <https://assets.kpmg/content/dam/kpmg/in/pdf/2019/08/india-media-entertainment-report-2019.pdf>

151 <https://www.financialexpress.com/brandwagon/online-gaming-industry-in-india-is-expected-to-grow-at-a-cagr-of-47-by-fy22-study/1971125/>.

152 <https://www.livemint.com/opinion/online-views/reasons-why-the-online-gaming-is-serious-business-1554315299112.html>

153 <https://www.forbes.com/sites/suparnadutt/2018/03/09/how-online-gaming-in-india-is-growing-fast-into-a-billion-dollar-market/#565b50da55b6>

154 [https://techcrunch.com/2019/08/22/mobile-gaming-mints-money/?guccounter=1&guce\\_referrer=aHR0cHM6Ly93d3cuZ29vZ2xllmNvbS8&guce\\_referrer\\_sig=AQAAAGB0j0wEa1DCw3rusWrr2BZ-QjIjNiNuXvTVgSOcmuWHYIN3HcyGJKOuLUFJa81NkU07YNZ87m79QztZye6q1wXWWR35SSEK-fuel0WCbl\\_2YDPIWgWD-YUGmBsdNxu9pRaMmrwaxdE501OuzigkM3NwZEDPp8Lc8u8fJKO3](https://techcrunch.com/2019/08/22/mobile-gaming-mints-money/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xllmNvbS8&guce_referrer_sig=AQAAAGB0j0wEa1DCw3rusWrr2BZ-QjIjNiNuXvTVgSOcmuWHYIN3HcyGJKOuLUFJa81NkU07YNZ87m79QztZye6q1wXWWR35SSEK-fuel0WCbl_2YDPIWgWD-YUGmBsdNxu9pRaMmrwaxdE501OuzigkM3NwZEDPp8Lc8u8fJKO3).

155 This figure includes the recent investment of USD 225 million in Dream11. See, <https://telecom.economicstimes.indiatimes.com/news/indian-gaming-industry-attracted-350-million-venture-capital-investments-between-2014-2020-report/76024021>.

156 <https://yourstory.com/2019/11/nazara-technologies-plans-to-invest-20-million-egaming>.

157 <http://www.kitven.com/funds/kitven-fund4>.

158 <https://tech.economicstimes.indiatimes.com/news/startups/dream11-parent-raises-225-million-in-funding/78105120#:~:text=Dream%20Sports%2C%20the%20parent%20company,%2C%20ChrysCapital%20and%20Footpath%20Ventures>.

159 <https://inc42.com/buzz/mobile-premier-league-funding-sequoia-times-internet/>.

160 <https://yourstory.com/2020/01/funding-alert-rho-tv-sequoia-india-surge-lightspeed>

161 <https://yourstory.com/2020/05/funding-alert-rooter-paytm-lead-sports-rockstud-founder-bank-capital>.

162 <https://www.livemint.com/companies/start-ups/zupee-raises-8-million-in-series-a-funding-led-by-matrix-partners-11586341137917.html>.

163 <https://economicstimes.indiatimes.com/small-biz/startups/newsbuzz/paytm-first-games-raises-20-million-for-expansion/articleshow/71435304.cms?from=mdr>.

164 <https://calvinayre.com/2019/09/24/press-releases/vereeni-makes-seven-figure-investment-in-nostragamus/>

165 <https://glaws.in/2019/07/23/real-money-gaming-platform-winzo-secures-5-million-series-a-funding/>

166 <https://inc42.com/buzz/gaming-startup-haloplay-raises-series-a-funding-to-scale-its-marketing-strategy/>

167 <https://www.vccircle.com/rakesh-jhunjhunwala-invests-27-mn-into-gaming-firm-nazara/>; and <https://www.vccircle.com/iifl-fund-acquires-51-mn-stake-in-nazara-technologies/>

168 <https://www.livemint.com/technology/tech-news/why-global-gaming-firms-are-making-a-beeline-for-india-11574955912531.html>; and <https://www.india-briefing.com/news/investing-indias-online-gaming-sector-market-profile-growth-drivers-20440.html/#indiasgamingmarketHeader>; <https://www.forbes.com/sites/suparnadutt/2018/03/09/how-online-gaming-in-india-is-growing-fast-into-a-billion-dollar-market/#4c9e61b855b6>.

169 AIGF and Maple Capital Advisors, Online Gaming: India Story (August 2020). See also, <https://www.thehindu.com/sci-tech/technology/online-gaming-companies-see-24-spurt-in-traffic/article31720051.ece>.

170 <https://42matters.com/india-mobile-gaming-statistics>

171 [https://www.techsciresearch.com/admin/gall\\_content/2017/6/2017\\_6\\$thumbimg114\\_Jun\\_2017\\_074442683.pdf](https://www.techsciresearch.com/admin/gall_content/2017/6/2017_6$thumbimg114_Jun_2017_074442683.pdf).

172 <https://in.ign.com/overwatch/145864/news/nodwin-announces-partnership-with-blizzard>.

173 [https://economicstimes.indiatimes.com/jobs/india-is-next-playground-for-game-development-jobs/articleshow/73921725.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://economicstimes.indiatimes.com/jobs/india-is-next-playground-for-game-development-jobs/articleshow/73921725.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

174 [https://economicstimes.indiatimes.com/jobs/the-game-is-on-online-gaming-companies-on-a-talent-hunt/articleshow/69050746.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://economicstimes.indiatimes.com/jobs/the-game-is-on-online-gaming-companies-on-a-talent-hunt/articleshow/69050746.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

175 [https://economicstimes.indiatimes.com/jobs/india-is-next-playground-for-game-development-jobs/articleshow/73921725.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://economicstimes.indiatimes.com/jobs/india-is-next-playground-for-game-development-jobs/articleshow/73921725.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

176 <https://venturebeat.com/2018/02/06/league-of-lawyers-esports-is-creating-a-new-class-of-white-collar-jobs/>

177 [https://www.business-standard.com/article/international/top-live-streamers-get-50-000-per-hour-to-play-new-video-games-online-119052000012\\_1.html](https://www.business-standard.com/article/international/top-live-streamers-get-50-000-per-hour-to-play-new-video-games-online-119052000012_1.html)

178 [https://economicstimes.indiatimes.com/jobs/india-is-next-playground-for-game-development-jobs/articleshow/73921725.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://economicstimes.indiatimes.com/jobs/india-is-next-playground-for-game-development-jobs/articleshow/73921725.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

179 <https://newzoo.com/insights/articles/newzoos-games-trends-to-watch-in-2020/>

180 <https://www.forbes.com/sites/ilkerkoksal/2019/11/08/video-gaming-industry-its-revenue-shift/#78a4a997663e>

181 <https://www.forbes.com/sites/suparnadutt/2018/03/09/how-online-gaming-in-india-is-growing-fast-into-a-billion-dollar-market/#565b50da55b6>

182 <https://www.americangaming.org/resources/economic-impact-of-the-u-s-gaming-industry-2/#:~:text=1.8%20million%20jobs%20with%20%2474.0,%2410.7%20billion%20of%20gaming%20taxes>

183 <https://www.gamesindustry.biz/articles/2019-05-23-tiga-uk-industry-now-contributes-record-1.8b-to-gdp>; and <https://www.gamesindustry.biz/articles/2019-11-19-esac-releases-economic-impact-study-on-canadian-games-industry>.

184 A recent case in point was US President Donald Trump blaming 'gruesome and grisly video games' for mass shootings in Texas and Ohio. Closer home, the Gujarat government banned PUBG for its alleged violent content, while a Goa minister called it a 'demon in every house'. See also, <https://www.hindustantimes.com/india-news/demon-in-every-house-10-arrested-in-gujarat-for-playing-pubg/story-7H8wSyILwRRNuYD8f02QBm.html>.

185 WHO, International Classification of Diseases (2018). See, <https://icd.who.int/browse11/l-m/en>.

186 Ila Tyagi and Varsha Raman, Mental health aspects of online gaming, available at <https://www.ikigailaw.com/mental-health-aspects-of-online-gaming/>.

187 Antonius J. van Rooij, A Weak Scientific Basis for Gaming Disorder: Lets Err on the Side of Caution, Journal of Behavioural Addictions (2018), <https://psycarxiv.com/ke7r2>; and Charlie Hall, Psychologists Say Rush to Pathologize Video Game Addiction is Dangerous, Polygon, 2nd August 2017, <https://www.polygon.com/2017/7/20/16003642/psychologist-video-game-addiction-dangerous-dsm-icd-moral-panic-political-pressure>.

188 Antonius J. van Rooij, A Weak Scientific Basis for Gaming Disorder: Lets Err on the Side of Caution, Journal of Behavioural Addictions, 8th February 2018, <https://psycarxiv.com/ke7r2>.

189 <https://www.techrepublic.com/article/who-campaign-promotes-gaming-as-a-preferred-coronavirus-pandemic-pastime/>.

190 <https://discovery.ucl.ac.uk/id/eprint/1418103/>.

191 Daphne Bavelier and others, Brains on DVideo Games, 12 Nature Reviews Neuroscience 763, page 763-8, (2011).

192 Suzzane Bujara, Video games and Exercise as Alternative Therapies for ADHD, Psychiatry Advisor, 26th April 2018, <https://www.psychiatryadvisor.com/home/topics/adhd/video-games-and-exercise-as-alternative-therapies-for-adhd/>.

193 Suzzane Bujara, Video game and Exercise as Alternative Therapies for ADHD, Psychiatry Advisor, 26th April 2018, <https://www.psychiatryadvisor.com/home/topics/adhd/video-games-and-exercise-as-alternative-therapies-for-adhd/>.

194 Rebecca Robbins, This video game may help kids with ADHD, Scientific American, 5th December 2017, <https://www.scientificamerican.com/article/this-video-game-may-help-kids-with-adhd/>.

195 Daphne Bavelier and others, Brains on Video games, 12 Nature Reviews Neuroscience 763, page 763-8, (2011). See also, Laura Lovett, Video game Trains People With Schizophrenia to Block Verbal Hallucinations, Mobi Health News, 2018, <https://www.mobihealthnews.com/content/video-game-trains-people-schizophrenia-block-verbal-hallucinations>. See also, Yasser Khazal, Games For Mental Health, 2018, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5908884/>.

196 Isabella Amado and others, A Serious Game to Improve Cognitive Functions in Schizophrenia: A Pilot Study, Frontiers in Psychiatry, 20th April 2016, <https://www.frontiersin.org/articles/10.3389/fpsy.2016.00064/full>.

197 Luther Elliot and others, More than Just a Game? Combat Themed Gaming Amongst Recent Combat Veterans With Post Traumatic Stress Disorder, 4 Games For Health Journal 271, page 271-77, (2015).

198 Renae Beaumont, Cassie Rotolone, and Kate Sofronoff, The Secret Agent Society Social Skills Program for Children with High-functioning Autism Spectrum Disorders: A Comparison of Two School Variants, Psychology in the Schools, Vol. 52(4), page 400-401, (2015), available at <https://www.panaacea.org/wp-content/uploads/2016/05/THE-SECRET-AGENT-SOCIETY-SOCIAL-SKILLS-PROGRAM-FOR-CHILDREN-WITH-HIGH-FUNCTIONING-AUTISM-SPECTRUM-DISORDERS-A-COMPARISON-OF-TWO-SCHOOL-VARIANTS.pdf>.

199 Xin Yi Lee, Can We Play with ADHD? An Alternative Game-Based Treatment for Inattentive Symptoms in Attention-Deficit Disorder, [https://www.researchgate.net/publication/321586152\\_Subconscious\\_Learning\\_via\\_Games\\_and\\_Social\\_Media](https://www.researchgate.net/publication/321586152_Subconscious_Learning_via_Games_and_Social_Media).

200 Jane Mcgonigal, How Video Games Can Teach Your Brain to Fight Depression, Slate, 9th November, 2015, available at <https://slate.com/technology/2015/11/how-video-games-can-teach-your-brain-to-fight-depression.html>; Ann Marie Roepke, Sara R. Jaffee, Olivia M. Riffle, Jane McGonigal, Rose Broome, and Bez Maxwell, Randomized Controlled Trial of SuperBetter, a Smartphone-Based/Internet-Based Self-Help Tool to Reduce Depressive Symptoms, Games for Health Journal, (2015), page 235-246, available at <https://doi.org/10.1089/g4h.2014.0046>

201 Josh Pappenheim, How video games helped me in my battle with anxiety, BBC, 8th May, 2017, available at <https://www.bbc.co.uk/bbcthree/article/968b997f-4150-4fad-a6e4-997081d87c8d>.

202 Simone Kuhn and others, Fighting Depression: Action Video Game Play May Reduce Rumination and Increase Subjective and Objective Cognition in Depressed Patients, Frontiers in Psychology, 12th February, 2018, available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5816361/>.

203 Ibid.

204 [https://www.researchgate.net/publication/6011284\\_Are\\_Violent\\_Video\\_Games\\_Harmful](https://www.researchgate.net/publication/6011284_Are_Violent_Video_Games_Harmful)

- <sup>205</sup> Dave Graham, Boy kills teacher, self in Mexico school, possibly 'influenced' by video game, 10<sup>th</sup> January 2020, available at <https://www.reuters.com/article/us-mexico-violence/boy-kills-teacher-self-in-mexico-school-possibly-influenced-by-video-game-idUSKBN1Z91P0>.
- <sup>206</sup> American Psychological Association, Violent video games blamed more often for school shootings by white perpetrators: Racial stereotypes may play role with assumptions that African-Americans are more violent, study finds, ScienceDaily, 16 September 2019, available at <https://www.sciencedaily.com/releases/2019/09/190916092107.htm>; and Antonius J. van Rooij, A Weak Scientific Basis for Gaming Disorder: Lets Err on the Side of Caution, Journal of Behavioural Addictions, 8<sup>th</sup> February 2018, <https://psyarxiv.com/ke7r9>, last accessed on 19<sup>th</sup> January 2020.
- <sup>207</sup> Karen Steinhilber, Do Video games Kill?, Contexts 6, page 13-13, (2007). Another study shows that propagating digital games as a cause of shootings actually stems from the intrinsic racism in the US. In this study, students who were shown photos of both African-American and Caucasian shooters, primarily attributed digital games as a causal factor to the crime of the white shooter. See Tanya Basu, The Connection Between video games and Mass Shootings Isn't Just Wrong - It is Racist, MIT Technology Review, 16<sup>th</sup> September 2019, <https://www.technologyreview.com/s/614317/the-connection-between-video-games-and-mass-shootings-isnt-just-wrongits-racist/>.
- <sup>208</sup> Andrew K Przybylski and Netta Weinstein, Violent Video games Engagement Is Not Associated with Adolescents' Behaviour, [https://www.researchgate.net/publication/323740425\\_Does\\_playing\\_violent\\_video\\_games\\_cause\\_aggression\\_A\\_longitudinal\\_intervention\\_study](https://www.researchgate.net/publication/323740425_Does_playing_violent_video_games_cause_aggression_A_longitudinal_intervention_study). In this study conducted over a span of two months, the participants were divided in three groups (i) Group A (played a violent digital game called Grand Theft Auto 2 daily); (ii) Group B (played a casual digital game called The Sims daily); and (iii) Group C (played no games at all daily). At the end of this study, no significant changes were found between the participants of Group A, Group B or Group C. See also, Keith Stuart, Video games Do Not Cause Violence, The Guardian, 7<sup>th</sup> August 2019, <https://www.theguardian.com/games/2019/aug/07/video-games-do-not-cause-violence-but-makers-do-need-to-think-about-it>, last accessed on 10<sup>th</sup> February 2020.
- <sup>209</sup> C.J. Ferguson, C.K. Olson, "Friends, fun, frustration and fantasy," Child motivations for video game play. Motivation and Emotion, vol.37, no.1, pp.154-164, 2013
- <sup>210</sup> <https://medicalexpress.com/news/2018-02-violent-video-games-outlet-aggression.html>.
- <sup>211</sup> A. Scott Cunningham, Benjamin Engelstätter, and Michael R. Ward, Understanding the Effects of Violent Video Games on Violent Crime, Discussion Paper No. 11-042, Centre for European Economic Research, available at <http://ftp.zew.de/pub/zew-docs/dp/dp11042.pdf>.
- <sup>212</sup> <https://medicalexpress.com/news/2018-02-violent-video-games-outlet-aggression.html>.
- <sup>213</sup> Cheryl Olson, Eugene V Beresin, and Lawrence Kutnar Factors Correlated with Violent Video Game Use by Adolescent Boys and Girls, Journal of Adolescent Health, July 2007, available at [https://www.researchgate.net/publication/6258734\\_Factors\\_Correlated\\_with\\_Violent\\_Video\\_Game\\_Use\\_by\\_Adolescent\\_Boys\\_and\\_Girls](https://www.researchgate.net/publication/6258734_Factors_Correlated_with_Violent_Video_Game_Use_by_Adolescent_Boys_and_Girls).
- <sup>214</sup> Games listed on the Google Play Store and Apple Store also have this requirement.
- <sup>215</sup> <https://www.globalratings.com/>.
- <sup>216</sup> <https://www.cae.net/gamification-a-trend-turned-into-a-must/>; and [https://trainingindustry.com/content/uploads/2017/07/enspire\\_cs\\_gamification\\_2016.pdf](https://trainingindustry.com/content/uploads/2017/07/enspire_cs_gamification_2016.pdf).
- <sup>217</sup> World Government Summit and Oxford Analytica, Gamification and the Future of Education, page 8-9, (2016).
- <sup>218</sup> Mindy Jackson, Gamification Elements To Use for Learning, 2016, [https://trainingindustry.com/content/uploads/2017/07/enspire\\_cs\\_gamification\\_2016.pdf](https://trainingindustry.com/content/uploads/2017/07/enspire_cs_gamification_2016.pdf).
- <sup>219</sup> Christo Dichev and Darina Dicheva, Gamifying Education: What is Known, What is Believed and What Remains Uncertain: A Critical Review, International Journal of Educational Technology in Higher Education, <https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-017-0042-5#ref-CR13>.
- <sup>220</sup> <https://www.sun.ac.za/english/learning-teaching/ctl/Documents/Gamification%20in%20education.pdf>
- <sup>221</sup> Gabriela Kiryakova, Nadezhda Aneglova and Lina Yordanova, Gamification in Education, Stellenbosch University, <https://www.sun.ac.za/english/learning-teaching/ctl/Documents/Gamification%20in%20education.pdf>.
- <sup>222</sup> Jordan Shapiro, Math, Science, History: Game Break Boundaries Between Subjects, Mind Shift, 8<sup>th</sup> May 2014, <https://www.kqed.org/mindshift/35562/math-science-history-games-break-boundaries-between-subjects-interdisciplinary-learning>.
- <sup>223</sup> David Williamson Shaffer, Kurt R. Squire, Richard Halverson and James P. Gee, Video Games and the Future of Learning, 87 Phi Delta Kappan, (2005).
- <sup>224</sup> <https://medium.com/re-form/industrial-training-with-video-games-2fd4f3129fc0>.
- <sup>225</sup> <https://www.marketsandmarkets.com/Market-Reports/gamification-market-991.html>.
- <sup>226</sup> Marco Ryan, Andy Sleight, Kai Wee Soh and Zed Li, Why Gamification is Serious Business, Accenture, 2013, <https://www.accenture.com/lu-en/-/media/Accenture/Conversion-Assets/Outlook/Documents/1/Accenture-Outlook-Why-Gamification-Is-Serious-Business.pdf>.
- <sup>227</sup> Ibid.
- <sup>228</sup> <https://financesonline.com/gamification-statistics/>
- <sup>229</sup> Marco Ryan, Andy Sleight, Kai Wee Soh and Zed Li, Why Gamification is Serious Business, Accenture, 2013, page 5, available at <https://www.accenture.com/lu-en/-/media/Accenture/Conversion-Assets/Outlook/Documents/1/Accenture-Outlook-Why-Gamification-Is-Serious-Business.pdf>.
- <sup>230</sup> Ibid.
- <sup>231</sup> [https://www.businessinsider.in/retail/kfc-has-a-terrifying-new-game-to-train-employees/articleshow/60212653.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://www.businessinsider.in/retail/kfc-has-a-terrifying-new-game-to-train-employees/articleshow/60212653.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)
- <sup>232</sup> Taryn Oesch, When is Training in Virtual Reality a Good Investment?, Training Industry, 13<sup>th</sup> September 2017, <https://trainingindustry.com/articles/learning-technologies/when-is-training-in-virtual-reality-a-good-investment/>.
- <sup>233</sup> Louis Efron, How Gaming is Helping Organizations Accelerate Recruitment, <https://www.forbes.com/sites/louisefron/2016/06/12/how-gaming-is-helping-organizations-accelerate-recruitment/#69e9968a53d5>.
- <sup>234</sup> Loren Fade, How Virtual and Augmented Reality are Revolutionising the Mining Industry, VR Vision, 2<sup>nd</sup> October 2018, <https://vrvisiongroup.com/how-virtual-augmented-reality-are-revolutionizing-the-mining-industry/>.
- <sup>235</sup> Loren Fade, How Virtual and Augmented Reality are Revolutionising the Mining Industry, 2<sup>nd</sup> October 2018, VR Vision, <https://vrvisiongroup.com/how-virtual-augmented-reality-are-revolutionizing-the-mining-industry/>.
- <sup>236</sup> [https://www.researchgate.net/publication/251188523\\_Virtual\\_reality\\_and\\_its\\_military\\_utility](https://www.researchgate.net/publication/251188523_Virtual_reality_and_its_military_utility).
- <sup>237</sup> <https://indianarmy.nic.in/makeinindia/PDS%2023%20Mar%202017%20FINAL.pdf>,
- <sup>238</sup> Karen Azulai, Knack- Change the Recruiting Game, HR Tech Nation, 11<sup>th</sup> February 2018, <https://www.hrtechnation.com/startups/knack-big-data-gamification/>.
- <sup>239</sup> Louis Efron, How Gaming is Helping Organizations Accelerate Recruitment, <https://www.forbes.com/sites/louisefron/2016/06/12/how-gaming-is-helping-organizations-accelerate-recruitment/#69e9968a53d5>.
- <sup>240</sup> Johnson, Daniel & Jones, Christian & Scholes, Laura & Colder Carras, Michelle. (2013). Videogames and Wellbeing: A Comprehensive Review, available at [https://www.researchgate.net/publication/251478450\\_Videogames\\_and\\_Wellbeing\\_A\\_Comprehensive\\_Review](https://www.researchgate.net/publication/251478450_Videogames_and_Wellbeing_A_Comprehensive_Review).
- <sup>241</sup> Unknown, Healthcare Gamification Market Industry Trends, Global Market Insights, October 2017, <https://www.gminsights.com/industry-analysis/healthcare-gamification-market>.
- <sup>242</sup> <https://jnnp.bmj.com/content/75/1/13>
- <sup>243</sup> Mark Griffiths, Video Games and Health, 331 BMJ, page 122-123, (2005).
- <sup>244</sup> <https://yourstory.com/2020/03/chennai-startup-nimaya-robotics-autism-special-education>
- <sup>245</sup> <http://www.beablehealth.com/armable>
- <sup>246</sup> Taylor LM, Maddison R, Pfaeffli LA, Rawstorn JC, Gant N, Kerse NM, Activity and energy expenditure in older people playing active video games. Arch Phys Med Rehabil (2012); 93:2281-6.
- <sup>247</sup> <https://www.marketsandmarkets.com/Market-Reports/gamification-market-991.html>
- <sup>248</sup> Gamergate was a viral internet controversy that used the hashtag #gamergate to target women in the digital gaming industry. The male harassers issued death and rape threats to women gamers and women in the digital gaming industry. Gamergate opened the discussion on overall bias towards women in the industry such as employment of women game developers, inferior treatment of female gamers, and indecent representation of women in digital games. See also, <https://www.washingtonpost.com/news/morning-mix/wp/2014/09/12/with-gamergate-the-video-game-industrys-growing-pains-go-viral/>; and <https://gawker.com/what-is-gamergate-and-why-an-explainer-for-non-geeks-1642909080>.
- <sup>249</sup> M Allison McDaniel, Women in Gaming: A Study of Female Players' Experiences in Online FPS Games, The Aquila Digital Community, May 2016, [https://aquila.usm.edu/cgi/viewcontent.cgi?article=1429&context=honors\\_theses](https://aquila.usm.edu/cgi/viewcontent.cgi?article=1429&context=honors_theses).
- <sup>250</sup> <https://newzoo.com/insights/articles/women-account-for-46-of-all-game-enthusiasts-watching-game-video-content-and-esports-has-changed-how-women-and-men-alike-engage-with-games/>
- <sup>251</sup> <https://radiichina.com/report-finds-that-half-of-chinas-600-million-gamers-are-now-female/>
- <sup>252</sup> <https://www.theesa.com/wp-content/uploads/2019/05/2019-Essential-Facts-About-the-Computer-and-Video-Game-Industry.pdf>.
- <sup>253</sup> <https://venturebeat.com/2019/12/10/women-are-big-and-underserved-E-sports-fans-heres-how-to-market-to-them/>.
- <sup>254</sup> <https://newzoo.com/insights/infographics/the-south-korean-gamer-2017/>
- <sup>255</sup> <https://venturebeat.com/2019/12/10/women-are-big-and-underserved-E-sports-fans-heres-how-to-market-to-them/>.

256 <https://newzoo.com/insights/infographics/uk-games-market-2018/>

257 Ibid.

258 <https://assets.kpmg/content/dam/kpmg/in/pdf/2017/05/online-gaming.pdf>

259 [https://www.vice.com/en\\_in/article/nc8dww/survey-finds-more-indian-women-are-playing-mobile-games-than-men](https://www.vice.com/en_in/article/nc8dww/survey-finds-more-indian-women-are-playing-mobile-games-than-men)

260 <https://www.news18.com/news/tech/pubg-mobile-candy-crush-clash-of-clans-women-more-active-gamers-than-men-in-india-2320321.html>

261 <https://economictimes.indiatimes.com/small-biz/startups/homegrown-gaming-companies-like-nazara-games-turning-attention-to-women-centric-products/articleshow/51786757.cms?from=mdr>

262 <https://timesofindia.indiatimes.com/gadgets-news/gamer-girls-make-india-proud-at-csgo-international-competition/articleshow/72870032.cms>

263 <https://gurugamer.com/esports/the-first-ever-pubg-mobile-indian-girl-team-announced-by-entire-gaming-entity-athena-is-the-name-5616>. The team consists of 4 players: Kaikasha "Kesha" Salmani; Mahima "Kat" Shah; Prathiba "Quinn"; and Sneha "Sneha" Kathuria.

264 Unknown, Industry Demographics, Fantasy Sports Association, 2019, <https://thefsga.org/industry-demographics/>.

265 [https://www.theesa.com/wp-content/uploads/2019/05/ESA\\_Essential\\_facts\\_2019\\_final.pdf](https://www.theesa.com/wp-content/uploads/2019/05/ESA_Essential_facts_2019_final.pdf)

266 Christina Gough, Distribution of MOBA Gamers Worldwide, Statista, 15<sup>th</sup> June 2018, <https://www.statista.com/statistics/871031/moba-mmorpg-gamers-by-gender/>, last accessed on 7<sup>th</sup> February 2020. MOBA includes games like DOTA 2, League of Legends, and Arena of Valour, etc.

267 M Allison McDaniel, Women in Gaming: A Study of Female Players' Experiences in Online FPS Games, The Aquila Digital Community, May 2016, [https://aquila.usm.edu/cgi/viewcontent.cgi?article=1429&context=honors\\_theses](https://aquila.usm.edu/cgi/viewcontent.cgi?article=1429&context=honors_theses). See also, Christina Gough, Distribution of MOBA Gamers Worldwide, Statista, 15<sup>th</sup> June 2018, <https://www.statista.com/statistics/871031/moba-mmorpg-gamers-by-gender/>, last accessed on 7<sup>th</sup> February 2020.

268 Karen Spiegelman, 20 women in gaming you should know, Venture Beat, 2<sup>nd</sup> March 2020, available at <https://venturebeat.com/2020/03/02/20-women-in-gaming-you-should-know/> <https://www.crunchbase.com/hub/video-games-female-founded-companies#section-overview>

269 <https://girlswhocode.com>

270 <https://www.bbc.com/news/newsbeat-51364212>

271 <https://www.moneycontrol.com/news/trends/entertainment/women-as-game-developers-this-job-sector-is-welcoming-more-female-participation-4432891.html>.

272 <https://yourstory.com/herstory/2019/05/woman-entrepreneur-keerti-singh-gaming-startup-hitwicket>

273 <https://www.moneycontrol.com/news/trends/entertainment/women-as-game-developers-this-job-sector-is-welcoming-more-female-participation-4432891.html>.

274 <https://games.usc.edu/news/gender-equality-sells-women-in-the-games-industry/>

275 Katie Jenson, Seniors Are Fighting Aliens In A Video Game To Deal With Depression, Vice Media, 4<sup>th</sup> March 2017, [https://www.vice.com/en\\_us/article/534pxk/seniors-elderly-depression-videogames-project-evoc](https://www.vice.com/en_us/article/534pxk/seniors-elderly-depression-videogames-project-evoc). See also, Grant Bailey, Playing With Video Games Is A Key Strategy For Coping With Stress, The Independent, 9<sup>th</sup> February 2018, <https://www.independent.co.uk/life-style/video-games-stress-playing-strategy-key-gamers-study-a8202541.html>.

276 <https://www.theesa.com/wp-content/uploads/2019/05/2019-Essential-Facts-About-the-Computer-and-Video-Game-Industry.pdf>; and <https://gameworldobserver.com/2019/08/26/eu-video-games-industry-2018-stats/>.

277 <https://www.hindustantimes.com/health/how-youngsters-get-addicted-to-gaming-and-lose-control-of-lives/story-HRHdLxPmFB4GAOMIqrsymM.html>.

278 <https://www.hindustantimes.com/health/how-youngsters-get-addicted-to-gaming-and-lose-control-of-lives/story-HRHdLxPmFB4GAOMIqrsymM.html>

279 <https://www.theesa.com/wp-content/uploads/2019/05/2019-Essential-Facts-About-the-Computer-and-Video-Game-Industry.pdf>

280 <https://gameworldobserver.com/2019/08/26/eu-video-games-industry-2018-stats/>

281 <https://www.limelight.com/resources/white-paper/state-of-online-gaming-2020/>.

282 Jordan Shapiro, Benefits of Gaming: What Research Shows, Mind Shift, 13<sup>th</sup> June 2014, <https://www.kqed.org/mindshift/36269/benefits-of-gaming-what-research-shows>.

283 <https://www.nytimes.com/2019/02/20/business/video-game-controllers-disabilities.html>

284 <https://apps.apple.com/us/app/dice-world/id553269986>

285 <https://blogs.microsoft.com/accessibility/eyes-first-game/>

286 [https://store.steampowered.com/app/1215350/AudioWizards/?curator\\_clanid=26801495](https://store.steampowered.com/app/1215350/AudioWizards/?curator_clanid=26801495)

287 <https://www.xbox.com/en-US/xbox-one/accessibility>

288 See John Holden, Anastasios Kaburakis and Ryan Rodenberg, The Future is Now: E-sports Policy Consideration and Potential Litigation, 27 Journal of Legal Aspects of Sports, page 46-68, (2017), available at <http://journals.iupui.edu/index.php/jlas/article/download/22241/21381/>.

289 Typical positions in a Counter Strike: Global Offensive (CS:GO) match are: Strat caller (leader of the group); Entry flagger (first player to charge the attack); Main AWPer (settles at a remote location with a rifle/sniper); Lurker (has fast mobility throughout the map and aims for surprise kills); Support (joins another team player to build an attack). See also, <https://pages.firstblood.io/pages/blog/dota-2/dota-2-roles-and-what-they-truly-entail>.

290 John Holden, Anastasios Kaburakis and Ryan Rodenberg, The Future is Now: E-sports Policy Consideration and Potential Litigation, 27 Journal of Legal Aspects of Sports, page 46-68, (2017).

291 [https://nexus.leagueoflegends.com/wp-content/uploads/2019/01/2019-LCS-Rule-Set-v19.3\\_uh6o67g0zd58db0o5p08.pdf](https://nexus.leagueoflegends.com/wp-content/uploads/2019/01/2019-LCS-Rule-Set-v19.3_uh6o67g0zd58db0o5p08.pdf)

292 <https://www.ic-sf.org>

293 John Holden, Anastasios Kaburakis and Ryan Rodenberg, The Future is Now: E-sports Policy Consideration and Potential Litigation, 27 Journal of Legal Aspects of Sports, page 46-68, (2017).

294 Martin Schutz, Science Shows that E-sports Professionals are Real Athletes, Deutsche Welle News, 12<sup>th</sup> March 2016, <https://www.dw.com/en/science-shows-that-E-sports-professionals-are-real-athletes/a-19084993>, last accessed on 31<sup>st</sup> January 2020.

295 Leiser Silva and Elham Mousavidin, Strategic thinking in virtual worlds: Studying World of Warcraft, Computers in Human Behaviour Volume 46, May 2015, Pages 168-180, available at <https://www.sciencedirect.com/science/article/pii/S0747563215000035>; and Joe Bartel, The unique strategy of DOTA 2, 14<sup>th</sup> January 2016, available at [https://www.espn.in/esports/story/\\_/id/14558522/dota-2-requires-strategy-skill-luck](https://www.espn.in/esports/story/_/id/14558522/dota-2-requires-strategy-skill-luck).

296 Unknown, E-sports Players are Training Like Traditional Athletes to Enhance Performance, The Independent, 15<sup>th</sup> April 2019, <https://www.independent.co.uk/news/long-reads/E-sports-players-training-fitness-athletes-perform-league-video-games-a8863051.html>.

297 Prominent e-sports coaches: Sergey Ischuk, Björn Pers and Luis Tadeu. Stephen Chiu, Coaches Across E-sports, ESPN, 22<sup>nd</sup> August 2016, [https://www.espn.in/E-sports/story/\\_/id/17365945/coaches-E-sports](https://www.espn.in/E-sports/story/_/id/17365945/coaches-E-sports).

298 For instance, for 150 minutes/week and eat a balanced diet of at least 2500 calories/day. Unknown, Fitness and Dietary Advice for E-sports Players, British E-sports, <https://britishe-sports.org/news/keeping-fit-and-healthy-exercise-sleep-and-dietary-advice-for-E-sports-players/>.

299 Lucy Koch, E-sports Playing in the Big Leagues Now, EMarketer, 5<sup>th</sup> February 2019, <https://www.emarketer.com/content/E-sports-disrupts-digital-sports-streaming>, last accessed on 31<sup>st</sup> January 2020; Annie Pei, This esports giant draws in more viewers than the Super Bowl, and it's expected to get even bigger, CNBC, 14<sup>th</sup> April. 2019, available at <https://www.cnbc.com/2019/04/14/league-of-legends-gets-more-viewers-than-super-bowlwhats-coming-next.html>.

300 <https://www.outlookindia.com/website/story/sports-news-icc-reveals-astonishing-2019-cricket-world-cup-viewership-numbers-including-figures-from-record-breaking-india-vs-paki/338795>; and <https://www.barcelonaopenbancsabadell.com/en/news/over-900-million-tv-viewers-globally-watch-atp-world-tour-2015>.

301 <https://www.nag.co.za/2019/08/26/the-international-victors-took-home-more-prize-money-than-wimbledon-champions/>

302 <https://store.hp.com/us/en/tech-takes/average-esports-earnings>

303 Shounak Sengupta, Prize Money in E-sports Witnesses 118% Growth, The Esport Observer, 29<sup>th</sup> August 2019, <https://E-sportsobserver.com/india-E-sports-2019-prize-money/>

304 China recognised E-sports as a profession in 2019. China currently has 1,00,000 people classified as E-sport athletes. See Tao Mingyang, Esports' long, hard road toward recognition and legitimacy in China, Global Times, 26<sup>th</sup> August, 2019, available at <https://www.globaltimes.cn/content/1162710.shtml>

305 Germany recognized E-sports as a professional sport in 2018. Germany currently has 2,300 registered professional E-sport athletes. See Janet Speight, Germany to recognize eSports as an official sport, Deutsche Welle, 8<sup>th</sup> February 2018, available at <https://www.dw.com/en/germany-to-recognize-esports-as-an-official-sport/a-42509285>

306 South Korea was one of the pioneers when it comes to recognising E-sports and recognised Esports in early 2000s. South Korea currently has 1100 active competitive E-sports athletes. See Paul Mozur, For South Korea, E-Sports Is National Pastime, The New York Times, 19<sup>th</sup> October, 2014, available at <https://www.nytimes.com/2014/10/20/technology/league-of-legends-south-korea-epicenter-esports.html>.

307 United States officially recognised E-sport athletes in 2013. The US currently has approximately 3200 active E-sports athletes. See Paul Tassi, The U.S. Now Recognizes eSports Players As Professional Athletes, Forbes, 14<sup>th</sup> July, 2013, available at <https://www.forbes.com/sites/insertcoin/2013/07/14/the-us-now-recognizes-esports-players-as-professional-athletes/#62f68d4c3ac9>.

308 France officially recognised E-sport as a professional sport in 2016. Currently, France is home to 179 teams and 348 professional E-sport athletes. See Sam Edge, French Government creates National Esports Federation officially, 27<sup>th</sup> April 2016, Esports Middle East, available at <https://es.me/en/french-government-creates-national-esports-federation-officially/>.

309 CSIC - China Sport Information Centre (China); E-sports Bund Deutschland (Germany); Korean E-sports Association (South Korea); United States eSports Federation (USA); Association of France eSports (France).

310 [https://www.vice.com/en\\_asia/article/zmaa5y/for-the-first-time-ever-esports-will-be-a-medal-event-in-the-southeast-asian-games](https://www.vice.com/en_asia/article/zmaa5y/for-the-first-time-ever-esports-will-be-a-medal-event-in-the-southeast-asian-games)

311 Bryan Armen Graham, eSports could be medal event at 2024 Olympics, Paris bid team says, The Guardian, 9<sup>th</sup> August, 2017, available at <https://www.theguardian.com/sport/2017/aug/09/esports-2024-olympics-medal-event-paris-bid-committee>; and <https://www.bbc.com/sport/olympics/43893891> And <https://www.topendsports.com/events/demonstration/esports.htm>.

312 <https://qualitance.com/blog/2018-asian-games-esports-breakthrough/>

313 [https://www.vice.com/en\\_asia/article/zmaa5y/for-the-first-time-ever-esports-will-be-a-medal-event-in-the-southeast-asian-games](https://www.vice.com/en_asia/article/zmaa5y/for-the-first-time-ever-esports-will-be-a-medal-event-in-the-southeast-asian-games) South East Asian Games 2018 hosted the following titles - Mobile Legends: Bang Bang, Arena of Valor, Dota 2, Starcraft II, Tekken 7 and Hearthstone).

314 Unknown, Here is What it is like to be a Gamer in India, Business Insider, 26<sup>th</sup> June 2019, <https://www.businessinsider.in/Heres-what-its-like-to-be-a-gamer-in-India/1-Its-a-budding-industry/slideshow/69952669.cms>. Gamers in India can also earn more than USD 26 (approximately INR 2,000) per day by using their skills to play games like PUBG. <https://tech.economictimes.indiatimes.com/news/mobile/pubg-tops-video-game-wagers-in-india/68527829>.

315 GQ Staff, How Much Do India's Highest Paid Cricketers Earn Every Year?, GQ, 8<sup>th</sup> March 2019, <https://www.gqindia.com/content/indian-cricketers-salary-earnings-every-year-bcci-pay-as-per-grade-domestic-indian-cricket-pay-structure>.

316 Unknown, Dota 2 win makes N0tail the top-awarded e-sports star, BBC, 26<sup>th</sup> August, 2019, available at <https://www.bbc.com/news/technology-49471963>, last accessed on 5<sup>th</sup> May, 2020; Unknown, Top 3 Highest-earning Esports Countries Hit \$338.9 Million in Total Prize Money, APN News, 4<sup>th</sup> May, 2020, <https://www.apnnews.com/top-3-highest-earning-esports-countries-hit-338-9-million-in-total-prize-money/>.

317 Audrey Winn, League of Legends Gamers Could Become California's Newest Workforce, Quartz, 9<sup>th</sup> January 2020, <https://qz.com/1781797/californias-ab-5-protects-league-of-legends-gamer-work-rights/>.

318 <https://midnightsports.com/top-jobs-in-esport/>.

319 Cameron Keng, Online Streaming And Professional Gaming Is A \$300,000 Career Choice, Forbes, 21<sup>st</sup> April, 2014, available at <https://www.forbes.com/sites/cameronkeng/2014/04/21/online-streaming-professional-gaming-is-a-300000-career-choice/#181b88f41982>.

320 Unknown, How Much Do Top Twitch Streamers Make, Mediakix, 2<sup>nd</sup> November, 2018, available at <https://mediakix.com/blog/how-much-do-twitch-streamers-make/>.

321 [https://www.business-standard.com/article/international/top-live-streamers-get-50-000-per-hour-to-play-new-videogames-online-119052000012\\_1.html](https://www.business-standard.com/article/international/top-live-streamers-get-50-000-per-hour-to-play-new-videogames-online-119052000012_1.html).

322 Application available at <https://fancode.com/>.

323 [https://www.youtube.com/results?search\\_query=dream+11+tips](https://www.youtube.com/results?search_query=dream+11+tips)

324 Frank Angst, Fantasy Sports: Real Job Opportunities, 15<sup>th</sup> July 2018 <https://www.thebalancecareers.com/fantasy-sports-real-job-opportunities-3113305>.

325 Cricbuzz, Video categories, available at <https://www.cricbuzz.com/cricket-videos/categories>.

326 [https://www.amazon.in/s?k=dream+11&ref=nb\\_sb\\_noss\\_2](https://www.amazon.in/s?k=dream+11&ref=nb_sb_noss_2).

327 <https://pokerstarschool.com>.

328 <https://www.youtube.com/user/Pokerstars>

329 <https://omlet.gg/game/com.octro.teenpatti>

330 <https://www.rummycircle.com/press-releases/grand-rummy-championship-2018.html>

331 <https://www.prnewswire.com/in/news-releases/adda52-rummy-returns-with-indian-rummy-challenge-2018-684460511.html>.

332 <https://www.businesswireindia.com/spartan-poker-announces-its-biggest-live-tournament-india-poker-championship-64793.html>

333 <http://blog.tairummy.com/>

334 <https://www.rummycircle.com/blog/indian-rummy/>

335 Kevin Desmond. 15,550 Poker Theory and Analytics. January IAP 2015. Massachusetts Institute of Technology: MIT OpenCourseWare, <https://www.aigf.in/media/news/interesting-article-on-playing-poker-the-iim-way/>; <https://www.thehindu.com/education/colleges/iim-kozhikode-uses-poker-to-teach-strategy/article31001362.ece>.

336 [https://www.amazon.in/s?k=books+on+poker&ref=nb\\_sb\\_noss\\_2](https://www.amazon.in/s?k=books+on+poker&ref=nb_sb_noss_2); <https://www.pokernews.com/news/2017/09/nolan-dalla-10-most-important-poker-strategy-books-18297.htm>

337 The Sikkim Online Gaming (Regulation) Act 2008; and Goa, Daman and Diu Public Gambling Act 1976.

338 Entry 34 in the List II (State List) in the Seventh Schedule to the Constitution of India.

339 These include Andaman Nicobar, Arunachal Pradesh, Chandigarh, Dadra and Nagar Haveli, Haryana, Himachal Pradesh, Lakshadweep, Punjab, Madhya Pradesh, Chhattisgarh, Manipur, Mizoram, Tripura and Uttarakhand.

340 These include Odisha, Assam, Telangana, Nagaland, and Sikkim.

341 Section 12 of the Public Gambling Act 1867. Similar exclusion for games of skill can be found in states laws that have adopted the Public Gambling Act 1867.

342 State of Andhra Pradesh v. K. Satyanarayana & Ors, 1968 AIR SC 825.

343 Section 9 of the Public Gambling Act 1867.

344 Section 2, sub-clause 2 of the Telangana Gaming Act 1974.

345 The act does not specifically state this, however the definition of "gaming" and the charging provisions of the act only constitute an offence when gaming involves stakes or money.

346 Section 2, sub-clause (b) of the Orissa (Prevention of) Gambling Act 1955.

347 Section 12 of the Orissa (Prevention of) Gambling Act 1955.

348 Section 2, sub-clause (a) of the Assam Game and Betting Act 1970.

349 Section 11 of the Assam Game and Betting Act 1970.

350 The act does not specifically state this, however the definition of "online games" and the charging provisions of the act only constitute an offence when online gaming is offered with stakes or money involved.

351 Section 2, sub-section (4), the Nagaland Act 2015. Games of chance mean all such games where there is a preponderance of skill over chance.

352 Section 2, sub-section (3), the Nagaland Act 2015. Schedule A of the act provides an indicative list of games of skill.

353 Section 11 of the Nagaland Act 2015.

354 The act does not specifically state this, however the definition of "games of chance" and the charging provisions to constitute "gambling" is made even if there are no stakes or money involved.

355 This act was passed under Article 252(1) of the Constitution and includes Andhra, Bombay, Madras, Orissa, Uttar Pradesh, Hyderabad, Madhya Bharat, Patiala and East Punjab States Union, Saurashtra and all the erstwhile Part C States authorizing the Parliament to enact a legislation for the control and regulation of prize competitions.

356 Section 2 (d) of the Prize Competition Act 1955. A prize competition means "any competition (whether called a cross-word prize competition, a missing-word prize competition, a picture prize competition or by any other name) in which prizes are offered for the solution of any puzzle based upon the building up, arrangement, combination or permutation, of letters, words, or figures."

357 Section 4 and 5 of the Prize Competition Act 1955.

358 MJ Sivani and others v. State of Karnataka and others, JT 1995 (4) SC 141. Gaming generally denotes playing any game whether of chance or skill (or mixed chance and skill) for money or money's worth. Although this judgement interpreted the definition of 'gaming' with respect to the Tamil Nadu Gaming Act 1930, the authors believe that this definition should be used to define 'gaming' generally.

359 Dr. KR Lakshmanan v. State of Tamil Nadu and Ors., AIR 1996 SC 1153.

360 Ibid.

361 Law Commission of India, Report no. 276 - Legal framework: gambling and sports betting, available at <http://lawcommissionofindia.nic.in/reports/Report276.pdf>.

362 Entry 34, List 2, Schedule VII, the Constitution of India 1949.

363 Section 12 of the Public Gambling Act 1867 (the "PGA 1867"). PGA 1867 is adopted by 14 states and union territories in India.

364 Dr. KR Lakshmanan v. State of Tamil Nadu and Ors., AIR 1996 SC 1153; and State of Andhra Pradesh v. K. Satyanarayana & Ors, 1968 AIR SC 825.

365 Volume IX, Constituent Assembly of India Debates (Proceedings), 9.130.327 to 9.130.328, Volume IX, Constituent Assembly Of India Debates (Proceedings).

366 The Orissa Prevention of Gambling Act 1955; The Assam Game and Betting Act 1970; and The Telangana Gaming Act 1974

367 The Nagaland Prohibition of Gambling and Promotion and Regulation of Online Games of Skill Act 2015 and the Sikkim Online Games (Regulation) Act 2008.

368 This test was laid out by the SC in State of Andhra Pradesh v. K. Satyanarayana & Ors.

369 Indian Poker Association (Ipa) vs the State of Karnataka, W.P. No.s 39167 TO 39169 of 2013

370 Dominance Games Pvt. Ltd. v. State of Gujarat & Ors, Special Civil Application No. 6903/2017. This judgment is currently challenged before a Division Bench of the Gujarat HC.

371 Para no. 15, 1968 AIR SC 825

- 372 Director, Inspector General of Police v. Mahalakshmi Cultural Association, (2012) 3 Mad LJ 561; Director General of Police v. S. Dilibabu W.A.No.296 of 2013; Ramachandran K v The Circle Inspector of Police, WP(C) No. 35535/2018
- 373 Play Games 24X7 Private Limited & Ors. v. Ramachandran.K & Ors., MANU/KE/4158/2019
- 374 D. Krishna Kumar v. State of Andhra Pradesh Para no. 12, 2003 CrLJ 143
- 375 Law Commission of India, Report No. 276 - Legal Framework: Gambling and Sports Betting Including Cricket in India (July 2018)
- 376 Diary no. 27511/2017
- 377 Ravindra Singh Chaudhary v. Union of India, DB Civil Writ Petition No. 20779/2019.
- 378 <https://indianexpress.com/article/technology/tech-news-technology/fantasy-sport-dream-11-iimb-cartesian-study-6165065/>
- 379 [http://timesofindia.indiatimes.com/articleshow/77760031.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](http://timesofindia.indiatimes.com/articleshow/77760031.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)
- 380 Humphrey v. Viacom, 2007 U.S. Dist. LEXIS 44679. See also, Dew-Becker v. Wu, Docket No. 124472. Decided on April 16th, 2020.
- 381 <https://www.dailyfantasyrankings.com.au/article/are-daily-fantasy-sports-legal-in-australia>. See also, Australian Gov't Dep't of Social Services, Review of Illegal Offshore Wagering (Dec. 18, 2015), <https://www.dss.gov.au/communities-and-vulnerable-people/programmes-services/gambling/review-of-illegal-offshore-wagering>.
- 382 <https://www.statsperform.com/resource/can-daily-fantasy-sports-success-uk/>
- 383 Remote Gambling Act 2014, Part I § 5(1)-(5)(2), Republic of Singapore Government Gazette Acts Supplement, No. 37 (Nov. 26, 2014).
- 384 <https://practiceguides.chambers.com/practice-guides/gaming-law-2019/brazil#:~:text=Fantasy%20sports%20are%20not%20regulated,sports%20are%20permitted%20in%20Brazil,&text=Social%20gaming%20is%20not%20regulated%20in%20Brazil>.
- 385 <https://blog.vinfotech.com/fantasy-sports/european-laws-on-fantasy-sports#:~:text=Most%20European%20countries%20recognize%20fantasy,business%20is%20legal%20but%20unregulated>.
- 386 FanDuel v. Schneiderman, N.Y. Sup. Ct., 161691/2015 available at: <http://www.legalsportsreport.com/wp-content/uploads/2015/11/DK-Opn-to-PI.pdf>.
- 387 <https://pubs.siam.org/doi/pdf/10.1137/16M1102094>; <http://news.mit.edu/2018/hosoi-study-skill-fantasy-sports-1107>;
- 388 <https://en.blog.businessdecision.com/big-data-skill-vs-luck-fantasy-sports/>; and <https://hbsp.harvard.edu/product/1MB781-PDF-ENGG?Ntr=Fantasy+Sports%3A+A+Game+oP%E2%80%A6>.
- 389 <https://phys.org/news/2018-11-fantasy-sports-based-skill-luck.html>
- 390 Shri Varun Gumber v. UT of Chandigarh & Ors., CWP No. 7559 of 2017; Gurdeep Singh Sachar v. Union of India , CrL. PIL No. 22/2019; and Chandresh Sankla v. State of Rajasthan & Others., D.B. Civil Writ Petition No.6653/2019. See also, Sarthak Doshi, The legality of fantasy sports in India, available at <https://www.ikigailaw.com/the-legality-of-fantasy-sports-in-india/>.
- 391 Humphrey v. Viacom, 2007 U.S. Dist. LEXIS 44679.
- 392 [http://www.nishithdesai.com/fileadmin/user\\_upload/pdfs/NDA%20In%20The%20Media/News%20Articles/180406\\_A\\_Legality\\_of\\_Fantasy\\_Sports\\_India.pdf](http://www.nishithdesai.com/fileadmin/user_upload/pdfs/NDA%20In%20The%20Media/News%20Articles/180406_A_Legality_of_Fantasy_Sports_India.pdf)
- 393 Suresh vs the State of West Bengal & Ors., W. P. No. 13728 (W) OF 2015 and Indian Poker Association & Anr. vs. The State of West Bengal & Ors., W.P.A. No. 394 of 2019
- 394 Indian Poker Association (Ipa) vs the State of Karnataka, W.P. No.s 39167 TO 39169 of 2013
- 395 Martin, 532 U.S. at 686-87 (2001); Case No. 98045DB, Mt. Pleasant Municipal Court, South Carolina (rendered Feb. 19, 2009); <https://www.reuters.com/article/usa-court-poker-idUSL1N0LT0UQ20140224>
- 396 Sean Fewster, Poker accused raise stakes in legal fight, ADVERTISER (Australia), Sept. 29, 2006, at 14.
- 397 Michael Keiner, The Current Legal Situation of Poker in Germany and Austria, CARD PLAYER EUROPE, <http://www.cardplayer.com/cpeurope/article/15976> Zononi is now attempting to get poker recognized as an Olympic sport.
- 398 Joseph M. Kelly, Zeeshan Dhar & Thibault Verbeist, Is it a Game of Skill or Chance and Legally Does it Matter, 11 GaMinG law review 190 (2007).
- 399 <https://www.pokernewsdaily.com/swedish-supreme-court-makes-controversial-poker-ruling-18704/>
- 400 Joseph M. Kelly, Zeeshan Dhar & Thibault Verbeist, Is it a Game of Skill or Chance and Legally Does it Matter, 11 GaMinG law review 190 (2007).
- 401 See Paco Hope & Sean McCulloch, Statistical Analysis of Texas Hold 'Em at 5 (March 4, 2009). In other words, in those 76% of hands, all but one player folded, making the remaining player the hand's winner, and the actual cards were never revealed. Moreover, according to this report, in roughly 50% of hands that do play to a showdown. Also See, <https://www.letsambleusa.com/is-poker-a-skill-game/>
- 402 Steven D. Levitt & Thomas J. Miles, The Role of Skill versus Luck in Poker: Evidence from the World Series of Poker, April 2011, available at <http://pricetheory.uchicago.edu/levitt/Papers/WSOP2011.pdf>
- 403 DAVID SKLANSKY, THE THEORY OF POKER 2 (2005).
- 404 Indian Poker Association (Ipa) vs the State of Karnataka, W.P. No.s 39167 TO 39169 of 2013
- 405 U.S. v. 294 Various Gambling Devices, 718 F. Supp. 1236, 1243 (W.D.Pa.1989).
- 406 Pennsylvania v. Dent, No. 2008-733, slip op. at 13-14 (Pa. Ct. Com. Pl. Jan. 14, 2009).
- 407 Noga Alon, Poker, Chance and Skill, available at <http://www.cs.tau.ac.il/~nogaa/PDFS/skill4.pdf>
- 408 Dominance Games Pvt. Ltd. v. State of Gujarat & Ors, Special Civil Application No. 6903/2017.
- 409 <https://blog.theborgata.com/2019/10/13/the-key-differences-between-live-and-online-poker/>
- 410 Pennsylvania v. Dent, No. 2008-733, slip op. at 13-14 (Pa. Ct. Com. Pl. Jan. 14, 2009)
- 411 K. Satyanarayana v. State of Andhra Pradesh, Para no. 15, 1968 AIR SC 825.
- 412 Director, Inspector General of Police v. Mahalakshmi Cultural Association, (2012) 3 Mad LJ 561; and Director General of Police v. S. Dilibabu W.A.No.296 of 2013; and Ramachandran K v The Circle Inspector of Police WP(C) No. 35535/2018
- 413 D. Krishna Kumar v. State of Andhra Pradesh Para no. 12, 2003 CrLJ 143
- 414 R.M.D. Chamarbaugwalla v. Union of India, 1957 AIR SC 628. It was held that "...But even apart from it, having regard to the history of the legislation, the declared object thereof and the wording of the statute, we are of opinion that the competitions which are sought to be controlled and regulated by the Act are only those competitions in which success does not depend to any substantial degree on skill."
- 415 Section 5 and 6 of the Prize Competition Act 1955.
- 416 Rule 11 (1) and (2) of Rules under the 1955 Act
- 417 Law Commission of India, Report No. 248, "Obsolete Laws : Warranting Immediate Repeal" (Interim Report), September 2014.
- 418 Aryan Babele, Tax officials looking into how fantasy gaming companies calculate GST: report, Medianama, 1<sup>st</sup> May, 2019, available at <https://www.medianama.com/2019/05/223-tax-officials-fantasy-gaming-companies-gst/>.
- 419 Taxes in India are broadly classified as direct and indirect taxes. Direct taxes are those that are levied directly on the income of a person and levied as per provisions of the Income Tax Act, 1961. Indirect taxes are those, whose incidence is borne by a person upon purchase of goods and services for consumption, resale, etc. and levied in India as GST.
- 420 Section 15(1) of the CGST Act provides that value of supply of goods or services shall be the transaction value, which is the price actually paid or payable for the said supply of goods or services.
- 421 Entry 999692 - gambling and betting services including similar online services attracts 28% tax, Entry 99965 - sports and recreational sports services attracts 28% tax, Entry 998439 - other online content attracts 18% tax, CGST Scheme of Classification.
- 422 An actionable claim is a claim to an unsecured debt towards which an action, such as going to court, can be taken. Section 3 of the Transfer of Property Act, 1882 defines an actionable claim as "a claim to any debt, other than a debt secured by mortgage of immovable property or by hypothecation or pledge of movable property, or to any beneficial interest in movable property..."
- 423 Entry 6 of Schedule III to the CGST Act provides that actionable claims, other than lottery, betting & gambling are transactions which shall neither be treated as supply of goods nor a supply of services.
- 424 These are limited to the users that earn money by playing games of skill.
- 425 These winnings are taxed at the flat rate of 31.2%. Section 115BB, IT Act. Further, if the winnings are greater than INR 10,000, the gaming company deducts TDS of any person at the same rate under Section 194B of the IT Act.
- 426 Section 2(24)(ix) covers "any winnings from lotteries, crossword puzzles, races including horse races, card games and other games of any sort or from gambling or betting of any form or nature whatsoever" under the definition of income. Explanation (ii) to Section 2(24)(ix) defines the term 'card games and other games of any sort' to include "any game show, an entertainment programme on television or electronic mode, in which people compete to win prizes or any other similar game".
- 427 The Income Tax Act does not permits tax break, rebates or write-offs of income from such winnings. Section 58(4), IT Act.
- 428 Nikunj Ohri, Casino Operators, Online Gaming Firms Have A Big Tax Problem, Bloomberg Quint, 2<sup>nd</sup> August, 2019, available at <https://www.bloombergquint.com/law-and-policy/casino-operators-online-gaming-firms-have-a-big-tax-problem>; and Sachin Dave and Samidha Sharma, Dream11, other eGaming companies face potential tax bouncer on GST, Economic Times, 29<sup>th</sup> April, 2019, <https://economictimes.indiatimes.com/small->

[biz/gst/dream11-other-egaming-companies-face-potential-tax-bouncer-on](http://biz/gst/dream11-other-egaming-companies-face-potential-tax-bouncer-on)

[gst/articleshow/69089721.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](http://gst/articleshow/69089721.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

<sup>429</sup> Aryan Babel, Tax officials looking into how fantasy gaming companies calculate GST: report, Medianama, 1<sup>st</sup> May, 2019, available at <https://www.medianama.com/2019/05/223-tax-officials-fantasy-gaming-companies-gst/>; Further, since skill-based games are not within the ambit of gambling and betting, the concept of a totalizer is inapplicable to it since there are no stakes or betting pool in play.

<sup>430</sup> Gurdeep Singh Sachar v Union of India, Bombay High Court, Criminal PII, Stamp No. 22 of 2019, para 12-13. This decision of the Bombay HC was subsequently appealed before the Supreme Court, which dismissed it, although currently the SC has put a hold on the operation of the judgement. See SC Dismisses all GST Evasion and Gambling Appeals filed against Dream11, Centre can approach HC again, Glaws, December 13, 2019, available at <https://glaws.in/2019/12/13/sc-dismisses-all-gst-evasion-and-gambling-appeals-filed-against-dream11-centre-can-approach-hc-again/>; However, on March 6, 2020, the Supreme Court issued a stay on the Bombay HC judgement. See <https://indiankanoon.org/doc/78595621/>.

<sup>431</sup> <https://assets.kpmg/content/dam/kpmg/mt/pdf/2017/11/mt-gambling-vat-exemption.pdf>.

<sup>432</sup> Online gaming sector: Diversification and scale for online success, Edison Investment Research, July, 2019, page 7, <https://www.edisongroup.com/wp-content/uploads/2019/07/GamingSectorReport2019.pdf>; See also European Commission, Study of Gambling Services in the Internal Market of the European Union, 14<sup>th</sup> June, 2006, <http://ec.europa.eu/DocsRoom/documents/9725/attachments/1/translations/en/renditions/pdf>.

<sup>433</sup> See the section on 'skill v/s chance issues in digital games' earlier in this Report. Also see The Curious Case of the Indian Gaming Laws: Legal Issues Demystified, Nishith Desai, October 2019, page 49, [http://www.nishithdesai.com/fileadmin/user\\_upload/pdfs/Research%20Papers/The\\_Curious\\_Case\\_of\\_the\\_Indian\\_Gaming\\_Laws.pdf](http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research%20Papers/The_Curious_Case_of_the_Indian_Gaming_Laws.pdf).

<sup>434</sup> Gurdeep Singh Sachar v Union of India, Bombay High Court, Criminal Public Interest Litigation, Stamp No. 22 of 2019, paragraph 13.

<sup>435</sup> Explanatory Notes to the Scheme of Classification of Services, Central Board of Indirect Taxes and Customs, available at [http://gstcouncil.gov.in/sites/default/files/Explanatory\\_notes.pdf](http://gstcouncil.gov.in/sites/default/files/Explanatory_notes.pdf), page 72-73.

<sup>436</sup> See Online gaming sector: Diversification and scale for online success, Edison Investment Research, July, 2019, available at <https://www.edisongroup.com/wp-content/uploads/2019/07/GamingSectorReport2019.pdf>

<sup>437</sup> Section 2(24)(ix) of the IT Act was introduced through the Finance Bill of 1972.

<sup>438</sup> See Commissioner of Income Tax, Madras v. G.R. Karthikeyan, where the SC held that games of skill are also covered under Section 2(24)(ix).

<sup>439</sup> See section 1.4.1 of the Report.

<sup>440</sup> State of Andhra Pradesh v. Satyanarayan, AIR 1968 SC 825; K. R. Lakshmanan v. State of Tamil Nadu, AIR 1996 SC 1153.

<sup>441</sup> Thibault Verbiest & Pascal Reynaud, Skill Game for Money in France: Is it Legal?, 18<sup>th</sup> May, 2011, available at <http://www.gaminglaw.eu/news/skill-game-for-money-in-france-is-it-legal/>, last accessed on 22<sup>nd</sup> March, 2020; [https://kansspelautoriteit.nl/public/library/6/guide\\_on\\_assessing\\_games\\_of\\_chance.pdf](https://kansspelautoriteit.nl/public/library/6/guide_on_assessing_games_of_chance.pdf).

<sup>442</sup> European Commission, Study of Gambling Services in the Internal Market of the European Union, 14<sup>th</sup> June, 2006, available at <http://ec.europa.eu/DocsRoom/documents/9725/attachments/1/translations/en/renditions/pdf>. Daily fantasy sports laws for European countries, Vinfotech, 30<sup>th</sup> April, 2018, available at <https://blog.vinfotech.com/fantasy-sports/fantasy-sports-laws-in-europe>.

<sup>443</sup> The legislative intent was to disincentivize gambling and also earn revenue from those who indulge in it. See Memorandum explaining the provisions of the Finance Bill 1972, available at <https://www.incometaxindia.gov.in/budgets%20and%20bills/1972/10701000000353246.pdf>

<sup>444</sup> Most Gambling Laws in India carve out an exception for 'games of skill' from the purview of their gambling legislation. See Section 12 of the Public Gambling Act of 1867.

<sup>445</sup> Section 58(4), IT Act.

<sup>446</sup> Baxter v. United States, 633 F. Supp. 912 (D. Nev. 1986), available at <https://law.justia.com/cases/federal/district-courts/FSupp/633/912/1677565/>.

<sup>447</sup> See, Union of India & Ors. Etc. Etc vs Bombay Tyre International Ltd., 1984 SCR (1) 347.

<sup>448</sup> Entry 999692 of the Explanatory Notes which covers 'gambling and betting services including similar online service' should have the following language added: "This service code does not include services provided by operators of skill-based games, cf. 998439".

<sup>449</sup> Entry 998439 of the Explanatory Notes should be revised to include services provided by operators of skill-based games. The following words may be added after "...card games, children's games": "skill-based games, played on digital and offline platforms, including but not limited to fantasy sports, puzzles, card games".

<sup>450</sup> Model Police Manual, Volume 3, available at <https://bprd.nic.in/WriteReadData/userfiles/file/7933847300-volume%203.pdf>; Tax Manual, Central Board of Direct Taxes, available at <https://www.incometaxindia.gov.in/pages/about-us/central-board-of-direct-taxation.aspx>.

<sup>451</sup> For definition of game of skill, see Wedges/Ledges of California v. City of Phoenix, 24 F.3d 56, 63 (9<sup>th</sup> Cir. 1994). Alternatively, the UK VAT legislation defines games of chance to mean pure chance, such as dice or roulette, where the result cannot be influenced by the player.

<sup>452</sup> Section 115BB should be amended to provide a reduced rate of taxation from the 31.2% that is the current rate for all games under Section 2(24)(ix).

<sup>453</sup> Section 58(4) of the IT Act should be removed. Alternatively, a proviso can be added to Section 58(4), clarifying that it would not be applicable to income derived from skill-based games.

<sup>454</sup> Includes written works such as computer programmes, compilations and even databases. Section 2(o), the Copyright Act, 1957.

<sup>455</sup> Include paintings, sculptures, drawings, and photographs. Section 2(c), the Copyright Act, 1957.

<sup>456</sup> Includes music tracks used in a game such as those in Mario, where music composer Koji Kando created separate tracks for each level of the game. Section 2(p), the Copyright Act, 1957.

<sup>457</sup> Includes acting, writing and arrangement for the purpose of entertainment. Section 2(h), the Copyright Act, 1957.

<sup>458</sup> Includes any work of audio-visual recording, including any work by "a process analogous to cinematography". Section 2(f), the Copyright Act, 1957.

<sup>459</sup> Section 17(c), the Copyright Act

<sup>460</sup> Section 2(d)(vi), the Copyright Act.

<sup>461</sup> Section 2(d)(vii), the Copyright Act

<sup>462</sup> proviso 3 and 4 of Section 18, copyright act

<sup>463</sup> Section 52, the Copyright Act, 1957.

<sup>464</sup> Section 51, the Copyright Act.

<sup>465</sup> Section 51(a)(i), the Copyright Act.

<sup>466</sup> Section 51(a)(ii), the Copyright Act.

<sup>467</sup> Section 51(b)(i), the Copyright Act.

<sup>468</sup> Section 51(b)(iii), the Copyright Act.

<sup>469</sup> Section 2(a), patents act

<sup>470</sup> Section 2(j), patents act

<sup>471</sup> Section 3(k), the Patent Act, 1970.

<sup>472</sup> Section 3(m), the Patent Act, 1970.

<sup>473</sup> Section 30(1), the Trademarks Act, 1999.

<sup>474</sup> Common law rights are rights in a body of unwritten laws developed by the Courts/Tribunals through judicial decisions on cases. These rights are uncodified, in that they do not exist in statute.

<sup>475</sup> ICC Development v. Arvee Enterprises, (2003) 26 PTC 245 (Del.)

<sup>476</sup> Computer and Video Game Law: Cases, Statutes, Forms, Problems & Materials, by Ashley Saunders Lipson & Robert D. Brain, Carolina Academic Press, 2009.

<sup>477</sup> WIPO, The Legal Status of Video Games: Comparative Analysis in National Approaches, page 8, (2013), available at [https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative\\_analysis\\_on\\_video\\_games.pdf](https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative_analysis_on_video_games.pdf)

<sup>478</sup> Practically, this means that gaming code with the original design sketches may attract protection as a 'computer programme' or a 'literary work', concept artwork for the game may get protection as an 'artistic work'; the story of the game can be protected as a 'dramatic work'; while the music of the game may get copyright as a 'musical work' or similar to audio-visual works, a game may receive copyright protection as a "cinematographic work". See also Study on "Creating Virtual World: Importance of Intellectual Property in the Animation & Gaming Industry", by Symbiosis Law School, Noida and Scriboard, New Delhi.

<sup>479</sup> <https://open.mitchellhamline.edu/cgi/viewcontent.cgi?article=1062&context=cybersis>

<sup>480</sup> <http://pnwstartuplawyer.com/copyright/software/copyright-illustrated-video-game-clones/>

<sup>481</sup> <https://www.pcmag.com/news/top-angry-birds-knockoffs-to-avoid>; <https://techcrunch.com/2011/12/06/can-we-stop-the-copycat-apps/>.

<sup>482</sup> <https://www.mondaq.com/unitedstates/Intellectual-Property/611898/How-Courts-View-Copyright-Protection-For-Video-Games>

<sup>483</sup> Spry Fox LLC v. LOLApps Inc.

<sup>484</sup> [https://www.taylorwessing.com/download/article\\_gaming\\_copyright.html](https://www.taylorwessing.com/download/article_gaming_copyright.html); Spry Fox LLC v. LOLApps Inc.

<sup>485</sup> LexMantis, Report on Intellectual Property in Gaming, page 2, (2015). Available at <http://www.lexmantis.com/pdf/May-Jun-2015-IP-Era-Intellectual-Property-In-Gaming-LexMantis.pdf>, last accessed on 06<sup>th</sup> February, 2020.

<sup>486</sup> <http://arno.uvt.nl/show.cgi?fid=144375>

<sup>487</sup> Canada, Russia and Singapore consider digital games as computer programs

<sup>488</sup> Kenya and the Republic of Korea consider them as audio-visual works

<sup>489</sup> [https://www.wipo.int/wipo\\_magazine/en/2014/04/article\\_0006.html](https://www.wipo.int/wipo_magazine/en/2014/04/article_0006.html)

490 WIPO, The Legal Status of Video Games: Comparative Analysis in National Approaches, page 94, (2013). Available at [https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative\\_analysis\\_on\\_video\\_games.pdf](https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative_analysis_on_video_games.pdf).

491 WIPO, The Legal Status of Video Games: Comparative Analysis in National Approaches, page 94, (2013). Available at [https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative\\_analysis\\_on\\_video\\_games.pdf](https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative_analysis_on_video_games.pdf).

492 Section 2(d)(vi), Copyright Act

493 <https://books.google.co.in/books?id=3H1gDwAAQBAJ&printsec=frontcover#v=onepage&q=computer%20generated&f=false>

494 WIPO, The Legal Status of Video Games: Comparative Analysis in National Approaches, (2013). Available at [https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative\\_analysis\\_on\\_video\\_games.pdf](https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative_analysis_on_video_games.pdf)

495 WIPO, The Legal Status of Video Games: Comparative Analysis in National Approaches, page 94, (2013). Available at [https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative\\_analysis\\_on\\_video\\_games.pdf](https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative_analysis_on_video_games.pdf).

496 WIPO, The Legal Status of Video Games: Comparative Analysis in National Approaches, (2013). Available at [https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative\\_analysis\\_on\\_video\\_games.pdf](https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative_analysis_on_video_games.pdf)

497 Section 1, Gesetz über Urheberrecht und verwandte Schutzrechte – Urheberrechtsgesetz

498 Article L.132-25 of the copyright code

499 [https://www.wipo.int/export/sites/copyright/en/activities/pdf/comparative\\_analysis\\_on\\_video\\_games.pdf](https://www.wipo.int/export/sites/copyright/en/activities/pdf/comparative_analysis_on_video_games.pdf)

500 Richard P. Flaggert, Copyright in esports: a top-heavy power structure, but is it legally sound?, DLA Piper, 27<sup>th</sup> September 2018, <https://www.dlapiper.com/en/us/insights/publications/2018/09/ipt-news-q3-2018/copyright-in-esports/>.

501 <http://jlsplaw.columbia.edu/wp-content/uploads/sites/8/2019/01/Vol52-Miroff.pdf>

502 EULAs are commonly used by game publishers to exclude the commercial use of digital games, change the rules of the game, restrict viewing access and control how viewers watch it.

503 An example of such a game is Riot Games' League of Legends. See <https://esportsinsider.com/2017/11/riots-new-lol-park-will-see-seize-greater-authority-lck/>.

504 An example of such a game publisher is Blizzard Entertainment, which created the game Star Craft. See Dan Burke, Owning E-sports: Proprietary Rights in Professional Computer Gaming, University of Pennsylvania Law Review, Vo. 161:1535, available at <https://pdfs.semanticscholar.org/be7f/c37dd0e6333bc7088e6f297d13a104929140.pdf>.

505 Dan Burke, Owning E-sports: Proprietary Rights in Professional Computer Gaming, University of Pennsylvania Law Review, Vo. 161:1535, <https://pdfs.semanticscholar.org/be7f/c37dd0e6333bc7088e6f297d13a104929140.pdf>.

506 VentureBeat, Aaron Swerdlow, The emerging legal battle over video game streaming rights, available at <https://venturebeat.com/2017/05/27/the-emerging-legal-battle-over-video-game-streaming-rights/>.

507 DLA Piper, Richard P. Flaggert, Copyright in esports: a top-heavy power structure, but is it legally sound?, DLA Piper, 27<sup>th</sup> September 2018, available at <https://www.dlapiper.com/en/us/insights/publications/2018/09/ipt-news-q3-2018/copyright-in-esports/>, last accessed on 06<sup>th</sup> February 2020.

508 WIPO, The Legal Status of Video Games: Comparative Analysis in National Approaches, page 94, (2013). Available at [https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative\\_analysis\\_on\\_video\\_games.pdf](https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative_analysis_on_video_games.pdf).

509 <http://jlsplaw.columbia.edu/wp-content/uploads/sites/8/2019/01/Vol52-Miroff.pdf>

510 Wynk music case

511 <https://www.copyright.gov/music-modernization/>.

512 ICC Development v. Arvee Enterprises, (2003) 26 PTC 245 (Del.); Haelan Labs v. Topps Chewing gum, Hirsch v. SC Johnson & Sons

513 Oliver Khan v. EA sports

514 ICC Development v. Arvee Enterprises, (2003) 26 PTC 245 (Del.)

515 Daniels et al. v. Fanduel, Inc., et al., Case No. 16CV01230(TWP-DKL), 2017 U.

516 In France, personality rights are protected under art. 9 of the French Civil Code. Germany also offers a much greater and sophisticated level of protection under Artistic Authors Rights Act and the German Constitution. §§ 22 and 23 of the Authors Rights Act, provides that a person has a right to control the publication of his picture.

517 <http://www.commonlii.org/in/journals/NALSARStuLawRw/2011/7.pdf>

518 <http://www.sportslaw.in/reports/FantasySportsPublication-Web.pdf>

519 Gionfriddo v. Major League Baseball, 94 Cal. App.4th 400 (2001) (“Gionfriddo

520 Section 30, Trademarks Act.

521 Consim Info Pvt Ltd v. Google India Private Limited & Ors. [2013 (54) PTC 578 (Mad)].

522 Hawkins Cookers v Murugan Enterprises [MIPR 2008 (1) 128, 2008 (36) PTC 290 Del.]

523 <https://techcrunch.com/2013/11/15/right-of-publicity-claims-may-impact-realistic-games-and-user-generated-content/>

524 <https://escholarship.org/content/qt7z58n0x8/qt7z58n0x8.pdf>.

525 A test that allows use of an individual's personality if the use is transformative. In other words, a use is not infringing if ‘significant expressive elements’ are applied to the likenesses.

526 <http://rightofpublicity.com/pdf/cases/kirby.pdf>

527 Keller v. Electronic Arts, et al.

528 [http://nopr.niscair.res.in/bitstream/123456789/6706/1/JIPR%2014\(6\)%20523-531.pdf](http://nopr.niscair.res.in/bitstream/123456789/6706/1/JIPR%2014(6)%20523-531.pdf)

529 Keller v. Electronic Arts, et al.

530 ICC Development v. Arvee Enterprises

531 The Supreme Court of India had recognized the right to privacy as a fundamental right under the Constitution of India in its judgement in K.S. Puttaswamy v. Union of India. Pursuant to this judgement, the Personal Data Protection Bill, 2019 was introduced in Parliament of India in December 2019. It is currently pending review with a committee.

532 LexMantis, Report on Intellectual Property in Gaming, page 4, (2015). Available at <http://www.lexmantis.com/pdf/May-Jun-2015-IP-Era-Intellectual-Property-In-Gaming-LexMantis.pdf>, last accessed on 06<sup>th</sup> February, 2020.

533 Section 3(m), the Patents Act, 1970.

534 [https://www.gamasutra.com/view/feature/6255/patents\\_and\\_the\\_video\\_game\\_.php?print=1](https://www.gamasutra.com/view/feature/6255/patents_and_the_video_game_.php?print=1)

535 U.S. Patent Application Publication No. 2006/0281553 (Digital Chocolate, Inc.); LexMantis, Report on Intellectual Property in Gaming, page 4, (2015). Available at <http://www.lexmantis.com/pdf/May-Jun-2015-IP-Era-Intellectual-Property-In-Gaming-LexMantis.pdf>.

536 U.S. Patent Application Publication No. 2010/0227675; LexMantis, Report on Intellectual Property in Gaming, page 4, (2015). <http://www.lexmantis.com/pdf/May-Jun-2015-IP-Era-Intellectual-Property-In-Gaming-LexMantis.pdf>.

537 U.S. Patent No. 6,200,138.

538 <https://www.supremecourt.gov/opinions/09pdf/08-964.pdf>

539 This can be done by introducing a proviso to section 2(d)(vi) of the Copyright Act.

540 This will be similar to section 31D of the Copyright Act.

541 This can be done by introducing an explanation to section 3(m) of the Patents Act.

542 <https://www.wired.co.uk/article/android-google-children-games>; <https://www.cnet.com/pictures/23-of-the-most-controversial-video-games/>.

543 See also, Sarthak Doshi, Digital games, violence, and freedom of expression, available at <http://rsrr.in/2019/09/22/digital-games-freedom-of-expression/>

544 Section 292 of Indian Penal Code, 1860. Maximum imprisonment of two years, and fine which may extend to INR 2,000; may get extended to five years and INR 5,000 on a subsequent conviction. Section 67 of the Information Technology Act, 2000 punishes publication of obscene material in electronic form with maximum imprisonment of three years and maximum fine of INR 5 lakh. In case of a second conviction, the maximum imprisonment is for a term of five years and the maximum fine is INR 10 lakh.

545 Section 4, Indecent Representation of Women (Prohibition) Act, 1986. Maximum imprisonment of two years along with maximum fine of INR 2,000; subsequent conviction of at least six months which may extend to five years, with fine not less than INR 10,000 which may extend to INR 1 lakh.

546 Sections 67A and 67B, Information Technology Act 2000. First conviction is punishable with a maximum imprisonment term of five years and a maximum fine of INR 10 lakh. A second conviction is punishable with a maximum imprisonment term of seven years and a maximum fine of INR 10 lakh.

547 Sections 13 and 14, Prevention of Children Against Sexual Offences Act, 2012. Minimum imprisonment of five years with fine; minimum imprisonment of seven years with fine on subsequent conviction.

548 Section 153A. Maximum imprisonment of three years with fine.

549 Section 295A. Maximum imprisonment of three years, or with fine, or both.

550 Section 3(1)(u), Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989. Imprisonment term of six months to five years with fine.

551 <https://www.firstpost.com/tech/gaming/overwatch-sexual-depiction-of-the-hindu-goddess-kali-is-just-not-cool-3724591.html>.

552 Section 3, Emblems and Names (Prevention of Improper Use) Act 1950. Maximum fine of INR 500. However, any prosecution can only be done with the prior sanction of the central government.

553 Section 2, Prevention of Insults to National Honour Act, 1971. Maximum imprisonment of three years, or fine, or both; in case of a second conviction, minimum imprisonment of one year

554 Section 499, Indian Penal Code, 1860. Maximum imprisonment of two years with or without fine.

555 Section 124-A, IPC.

556 For instance, when China stopped approving gaming titles in 2018, Tencent lost USD 1.5 billion in sales and USD 160 billion in market capitalization See - <https://www.wsj.com/articles/chinese-videogame-companies-shudder-as-government-tightens-grip-1535690686>; and China's censorship of digital games also cost Apple USD 4.8 billion See - <https://www.theverge.com/2019/1/29/18202812/chinese-censorship-hurt-apples-bottom-line>

557 Section 69-A, Information Technology Act, 2000.

558 Article 19(1)(a), Constitution of India.

559 Secretary, Ministry of Information and Broadcasting v. Cricket Association of Bengal, (1995) 2 SCC 161; Anuradha Bhasin v. Union of India, Judgement of the Supreme Court of India dated 10 January 2020, [https://main.sci.gov.in/supremecourt/2019/28817/28817\\_2019\\_2\\_1501\\_19350\\_Judgement\\_10-Jan-2020.pdf](https://main.sci.gov.in/supremecourt/2019/28817/28817_2019_2_1501_19350_Judgement_10-Jan-2020.pdf).

560 Brown v. Entertainment Merchants Association, 564 U.S. 786 2011, <https://casetext.com/case/brown-v-entmt-merchants-assn>.

561 Article 19(2), Constitution of India.

562 For example, Games such as Doom, Manhunt 2 and Call of Duty have been criticized for their 'intense' violent experience and correlated with several mass shooting incidents. [https://www.huffingtonpost.in/entry/jeff-sessions-guns-columbine\\_n\\_5894d54de4b0c1284t25dd102r18n=true](https://www.huffingtonpost.in/entry/jeff-sessions-guns-columbine_n_5894d54de4b0c1284t25dd102r18n=true); <https://www.polygon.com/gaming/2012/4/19/2959672/anders-brevik-trained-for-killing-spreed-with-call-of-duty>; <https://www.theguardian.com/technology/2007/jun/19/news.games>

563 <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-mass-shootings-texas-ohio/>.

564 <https://www.medianama.com/2019/03/223-gujarat-govt-pubg-ban/>. <https://www.medianama.com/2019/03/223-seven-arrested-in-rajkot-for-playing-pubg-report/>.

565 <https://www.barandbench.com/news/litigation/ban-pubg-punjab-haryana-hc-directs-meity-to-consider-representation>.

566 <https://www.thehindu.com/news/national/bombay-high-court-directs-it-ministry-to-review-act-on-pubg/article26823651.ece>.

567 <https://www.medianama.com/2019/04/223-gujarat-hc-rejects-pil-challenging-pubg-ban-bombay-hc-directs-meity-to-take-action/>.

568 <http://it.delhigovt.nic.in/writereaddata/Cir2019523780.pdf>.

569 <http://news.bbc.co.uk/2/hi/technology/7316700.stm>.

570 "These studies have been rejected by every court to consider them, and with good reason: They do not prove that violent video games cause minors to act aggressively (which would at least be a beginning)". Brown v. Entertainment Merchants Assn., 564 U.S. 786, 800 (2011).

571 Patrick M. Markey, Charlotte N. Markey, and Juliana E. French, "Violent Video Games and Real-World Violence: Rhetoric Versus Data," Psychology of Popular Media Culture, Oct. 2015. In addition, a study has also highlighted that violent games could disrupt approximately 2000 crimes per year. Keith Stuart, Video Games Do Not Cause Violence, 2019, <https://www.theguardian.com/games/2019/aug/07/video-games-do-not-cause-violence-but-makers-do-need-to-think-about-it>.

572 Ramesh v. Union of India, AIR 1988 SC 775.

573 Phantom Films Pvt. Ltd. v. Central Board of Film Certification, Writ Petition (L) No. 1529 of 2016.

574 Article 19(2), Constitution of India.

575 <https://kotaku.com/heavy-rain-banned-in-the-united-arab-emirates-5477047>.

576 <https://www.gov.uk/government/news/new-rules-to-better-protect-children-from-inappropriate-video-game-content>

577 Bobby Art International v. Om Pal Singh Hoon, (1996) 4 SCC 1.

578 Section 292, IPC.

579 Aavek Sarkar v. State of West Bengal, (2014) 4 SCC 257.

580 [http://www.chinadaily.com.cn/english/doc/2004-12/08/content\\_398445.htm](http://www.chinadaily.com.cn/english/doc/2004-12/08/content_398445.htm).

581 <https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/19123/Thesis%20Final-Mueller.pdf?sequence=1&isAllowed=y>.

582 Nachiket Walhekar v. Central Board of Film Certification, (2018) 1 SCC 778.

583 Manohar Lal Sharma v. Sanjay Leela Bhansali, (2018) 1 SCC 770.

584 <https://time.com/collection-post/4038820/chris-melissinos-are-video-games-art/>.

585 Brown v. Entertainment Merchants Association.

586 <https://videostandards.org.uk/RatingBoard/>.

587 <https://www.polygon.com/2018/3/3/17068788/esrb-ratings-changes-history-loot-boxes>.

588 <https://www.globalratings.com/about.aspx>.

589 <https://www.indiatoday.in/technology/news/story/google-play-store-applications-tagged-age-restrictions-291839-2015-05-31>.

590 <https://help.netflix.com/en/node/2064>.

591 <https://www.cbcindia.gov.in/main/guidelines.html>.

592 <https://amnesty.org.in/news-update/film-certification-not-become-excuse-censor-artistic-expression/>

593 Rule 7(9), Cable Television Networks Rules, 1994.

594 <https://www.medianama.com/2019/01/223-iamai-ott-regulation-video-platforms/>.

595 <https://www.medianama.com/wp-content/uploads/IAMAI-Digital-Content-Complaint-Council-NEW.pdf>.

596 <https://www.ibfindia.com/sites/default/files/IBF%27s%20Self%20Regulatory%20Guidelines%20%28Updated%20version%29.pdf>.

597 Studies state that in recent times around 25-50% of a game's revenue comes from add-on content. See <https://www.mondaq.com/unitedstates/Media-Telecoms-IT-Entertainment/844120/e-Sports-Update-Loot-Boxes-In-The-Crosshairs>.

598 WIPO, Mastering the Game: Business and legal issues for video game developers, available at [https://www.wipo.int/edocs/pubdocs/en/copyright/959/wipo\\_pub\\_959.pdf](https://www.wipo.int/edocs/pubdocs/en/copyright/959/wipo_pub_959.pdf).

599 <https://www.juniperresearch.com/press-releases/loot-boxes-and-skins-gambling>.

600 For example, Belgium legally banned the use of loot boxes in digital games in April 2018. Sixteen European jurisdictions have signed an agreement to investigate the role of loot boxes in digital gambling. A US senator had introduced a bill in May 2019 seeking a ban on loot boxes. <https://www.lexology.com/library/detail.aspx?g=08771be7-edc3-4e67-9b1d-d226a36523e3>

601 See also, Sarthak Doshi, Gaming loot boxes: Understanding their legality and impact on the online gaming industry, available at <https://www.ikigaiiaw.com/gaming-loot-boxes-understanding-their-legality-and-impact-on-the-online-gaming-industry/>

602 Entry 4; List II, 7<sup>th</sup> Schedule: Constitution of India, 1950.

603 The central law on gambling is the Public Gambling Act, 1867. The states that have adopted this law include Maharashtra, Gujarat, Rajasthan, Madhya Pradesh, Punjab, Haryana, Karnataka, Tamil Nadu, Kerala, and union territories such as New Delhi, Daman and Diu.

604 <https://practiceguides.chambers.com/practice-guides/gaming-law-2019/india>.

605 Dr. K.R. Lakshmana v. State of Tamil Nadu; AIR 1996 SC 1153.

606 Dr. KR Lakshmanan v. State of Tamil Nadu and Another, AIR 1996 SC 1153; MJ Sivani and Others v. State of Karnataka and Others, AIR 1995 SC 1770; and Bimalendu De v. Union of India, AIR 2001 Cal 30.

607 [https://www.gamingcommission.be/opencms/export/sites/default/jhksweb\\_nl/documents/onderzoeksrapport-loot-boxen-Engels-publicatie.pdf](https://www.gamingcommission.be/opencms/export/sites/default/jhksweb_nl/documents/onderzoeksrapport-loot-boxen-Engels-publicatie.pdf)

608 <https://www.lawofthelevel.com/2018/05/articles/gambling/belgium-gaming-commission-loot-box-report/>

609 <https://www.pcgamer.com/uk-gambling-commission-says-again-that-loot-boxes-arent-gambling/>

610 <https://www.bbc.com/news/technology-49074003>. In a statement, the UK Gambling Commission said that, "Loot boxes are one way that players can enhance the experience that video games offer. Contrary to assertions, loot boxes are not gambling. They have no real-world value, players always receive something that enhances their experience, and they are entirely optional to purchase. They can enhance the experience for those who choose to use them, but have no impact on those who do not."

611 Wisconsin Central Ltd. v. United States, 585 U.S. (2018)

612 Section 6; UK Gambling Act, 2005

613 An example of such a platform is PlayerUp- [www.playerup.com](http://www.playerup.com).

614 <https://dutchgamesassociation.nl/news/loot-boxes-netherlands-gaming-authoritys-findings/>

615 <https://www.eurogamer.net/articles/2017-12-06-inside-the-pokemon-black-market>

616 The Chinese Ministry of Culture released the following relevant guidelines- "(a) Online game publishers shall promptly publicly announce information about the name, property, content, quantity, and draw/forge probability of all virtual items and services that can be drawn/forge on the official website or a dedicated draw probability webpage of the game. The information on draw probability shall be true and effective; (b) Online game publishers shall publicly announce the random draw results by customers on notable places of official website or in game, and keep record for government inquiry. The record must be kept for more than 90 days. When publishing the random draw results, some measures should be taken place to protect user privacy." See <https://www.theverge.com/2017/5/2/15517962/china-new-law-dota-league-of-legends-odds-loot-box-random>.

617 <https://www.dota2.com.cn/article/details/20170502/194771.html>; <https://blizzardwatch.com/2016/12/12/new-chinese-law-will-require-games-list-odds-random-loot-boxes/>.

618 <https://www.ncbi.nlm.nih.gov/pubmed/31209310>

619 Such an approach is followed in Australia. <https://www.aph.gov.au/DocumentStore/ashx?id=c46de35e-9eeb-4e9f-bb34-8363f79e4df5>.

620 <https://www.statista.com/statistics/806168/india-number-of-employees-in-the-gaming-industry/>

621 <https://nsdcindia.org/about-us>

622 <https://nsdcindia.org/sector-skill-councils>

623 <http://mescindia.org/awsite/3d-digital-game-art.php>

624 Annexure 1B talks about non-CSCM SSC listed job roles which includes web and media developer, art director, colorist, compositor, layout designer, sound designer, storyboard and texturing artist and VFX editor. Can be accessed from [https://pmkvyofficial.org/App\\_Documents/News/Job-categories-under-State-Engagement.pdf](https://pmkvyofficial.org/App_Documents/News/Job-categories-under-State-Engagement.pdf)

625 <https://www.msde.gov.in/pmkvy.html>

626 [https://pmkvyofficial.org/App\\_Documents/News/Job-categories-under-State-Engagement.pdf](https://pmkvyofficial.org/App_Documents/News/Job-categories-under-State-Engagement.pdf)

627 [https://www.apprenticeship.gov.in/Material/NAPS\\_Guidelines.pdf](https://www.apprenticeship.gov.in/Material/NAPS_Guidelines.pdf)

628 <https://invest-india-revamp-static-files.s3.ap-south-1.amazonaws.com/Animations%2C%20Visual%20effects%2C%20Gaming%20and%20Comic%20%28AVGC%29%20Policy%202017-22.pdf>

629 <https://invest-india-revamp-static-files.s3.ap-south-1.amazonaws.com/Animations%2C%20Visual%20effects%2C%20Gaming%20and%20Comic%20%28AVGC%29%20Policy%202017-22.pdf>

630 <https://www.midcindia.org/documents/20181/28829/MAHARASHTRA+IT+%26+ITES+POLICY-2015.pdf/580cc1b5-4578-4ccd-b9c7-3a5f925a2ec0>

631 [https://www.business-standard.com/article/companies/india-s-first-centre-of-excellence-for-gaming-vfx-launched-in-hyderabad-120021700509\\_1.html](https://www.business-standard.com/article/companies/india-s-first-centre-of-excellence-for-gaming-vfx-launched-in-hyderabad-120021700509_1.html)

632 <http://www.udyogmitrabihar.in/f/uploads/2016/09/bihar-industrial-investment-promotion-policy-2016.pdf>

633 <http://itpolicyup.gov.in/wp-content/uploads/2017/12/UP-IT-Start-up-Policy-2017-English.pdf>

634 [https://www.webel.in/assets/newsletter/IT\\_Policy\\_2018/](https://www.webel.in/assets/newsletter/IT_Policy_2018/)

635 [https://www.webel.in/assets/notice/IT\\_Policy\\_2018.pdf](https://www.webel.in/assets/notice/IT_Policy_2018.pdf)

636 Official website of Ministry of Labour and Employment, New Initiatives, <https://labour.gov.in/new-initiatives>.

637 Official website of NCS portal, available at <https://www.ncs.gov.in/pages/about-us.aspx>.

638 <https://www.ncs.gov.in/Pages/Search.aspx?in=Rca60ftwa7Shl5gP%2BN3uPiA4xhsGPPD3lhvOWErxcq4%3D&V=6gqhwycyVHE%3D>.

639 Official website of Employment News, available at <http://employmentnews.gov.in/NewEmp/Home1.aspx>. The journal is published in English as Employment News, and in Hindi and Urdu as Rozgar Samachar and it also has e-versions for both all languages.

640 Such as the Institute of Banking Personnel Selection, the Railway Recruitment Board, Union Public Service Commission, the Staff Selection Commission.

641 Official website of Employment News, available at <http://employmentnews.gov.in/NewEmp/AboutUs.aspx>.

642 Official website of Kerala Government, State Job Portal, available at <http://www.statejobportal.kerala.gov.in/>.

643 Official website of Maharashtra Government, Mahaswayam, available at <http://rojgar.mahaswayam.gov.in/>.

644 Official website of Delhi Government, Delhi Job Portal Fair, available at <http://degs.org.in/jobfair/>.

645 Official website of National Career Service, State Government Job Portals Links, available at <https://www.ncs.gov.in/Pages/StateEmpPortalLinks.aspx>.

646 Official website of Aviation Jobs, available at <https://aviationjobs.co.in/>.

647 Official website of Sampark, available at <http://sampark.msme.gov.in/>.

648 Official website of National Career Service, Ministry-Wise Job Portals Links, available at <https://www.ncs.gov.in/layouts/15/ncsp/govtjobvacancies.aspx>.

649 <https://www.deccanchronicle.com/nation/current-affairs/211119/hyderabad-image-tower-delayed-to-2022.html>.

650 <https://www.iastoppers.com/skill-development-india-challenges-suggestions-mains-article/>

651 <https://www.iastoppers.com/skill-development-india-challenges-suggestions-mains-article/>

652 <https://www.gamesindustry.biz/articles/2019-11-19-german-government-approves-50-million-funding-for-games-development>

653 <http://www.businesskorea.co.kr/news/articleView.html?idxno=8003>

654 <https://www.pocketgamer.biz/asia/comment-and-opinion/72500/china-has-a-big-plan-to-become-the-global-centre-of-the-games-industry/>

655 <https://techcrunch.com/2019/08/22/mobile-gaming-mints-money/>

656 <https://venturebeat.com/2019/03/18/with-record-breaking-revenue-the-u-k-game-industry-is-blowing-up/>

657 <https://arstechnica.com/gaming/2011/05/is-your-online-game-art-government-money-is-waiting/>

658 <https://indianexpress.com/article/opinion/columns/the-apprentice-rebooted-5942561/>

659 <https://www.dailymail.co.uk/news/article-7673439/Chinese-university-teaches-teenagers-win-video-games-new-course.html>

660 <http://www.globaltimes.cn/content/1095787.shtml>

661 <https://globaluniversities.in/game-design-germany-bachelor/>; <https://www.gamedev.net/forums/topic/672384-game-design-advanced-degrees-in-south-korea/>

662 <https://www.talksport.com/originals/accepting-esports-as-a-traditional-sport-and-a-viable-career-path/>; <https://www.dw.com/en/will-german-esports-be-recognized-as-a-sport/a-41817810> <https://www.esportswizard.com/news/industry/esports-viable-career-choice/>.

663 The Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959, section 4(1).

664 Sachin Kumar, Indian Journal of Career and Livelihood Planning, 'The National Career Service of India: An Appraisal of a Dream that Could Come True', (Volume 4, Issue 1, December 2015), available at [http://www.iaclp.org/yahoo\\_site\\_admin/assets/docs/3\\_Sachin\\_Kumar\\_73115136.pdf](http://www.iaclp.org/yahoo_site_admin/assets/docs/3_Sachin_Kumar_73115136.pdf); and Livemint, 'The Curious Story of India's Employment Exchanges', dated 24<sup>th</sup> December, 2014, available at <https://www.livemint.com/Politics/DQw6CBkhktvJXoZBvNB1SK/The-curious-story-of-Indias-employment-exchanges.html>.

665 NCS Interlinking Scheme Guidelines available at [https://www.ncs.gov.in/NCSPolicyDocuments/NCs%20Interlinking%20Scheme%20Guidelines\\_24.05.2016.pdf](https://www.ncs.gov.in/NCSPolicyDocuments/NCs%20Interlinking%20Scheme%20Guidelines_24.05.2016.pdf).

666 As on 25<sup>th</sup> April, 2020, there were 11,441,505 active job seekers, 53,791 active employers, and 2,61,717 active vacancies. See Directorate General for Employment and Training, Ministry of Labour and Employment, National Career Service, available at <https://labour.gov.in/national-career-service>

667 These services include job matching, career counselling, vocational guidance, and information on skill-development courses. See Directorate General for Employment and Training, Ministry of Labour and Employment, Guidelines for Establishment of Career Centres, available at [https://www.ncs.gov.in/User\\_Manuals/CareerCenterGuidelines.pdf](https://www.ncs.gov.in/User_Manuals/CareerCenterGuidelines.pdf) and official website of MCCs, available at <https://www.mcc-centre.com/>.

668 Lok Sabha, Unstarred Question No. 115, answered on 18th November, 2019, available at <http://164.100.24.220/loksabhaquestions/annex/172/AU115.pdf>.

669 <https://www.thehindubusinessline.com/info-tech/few-takers-for-govts-national-career-service-portal/article10038047.ece>

670 Livemint, Government Plans to Partner Private Job Portals to Strengthen NCS, dated 6<sup>th</sup> August, 2016, available at <https://www.livemint.com/Politics/7ed2t2b1Stv1fVpGJUXDI/Govt-plans-to-partner-private-job-portals-to-strengthen-NCS.html>.

671 Directorate General for Employment and Training, Mini. try of Labour and Employment, National Career Service Project – Partnership Policy, available at [https://www.ncs.gov.in/NCSPolicyDocuments/NCs%20Onboarding%20Policy\\_07Jan2016.pdf](https://www.ncs.gov.in/NCSPolicyDocuments/NCs%20Onboarding%20Policy_07Jan2016.pdf).

672 Official website of Model Career Centres, Training Partners, available at <https://www.mcc-centre.com/?section=trainingpartners>.

673 Sarah Waris, IFSG is now Federation of Indian Fantasy Sports, The Bridge, 5<sup>th</sup> February 2020, available at <https://thebridge.in/ifsg-now-federation-indian-fantasy-sports/>.

674 IFSG, Scoring Big with Sports Gaming: A Report on the Emergence, Consumption, Patterns, Meteoric Growth and Future of Fantasy Sports in India, page 18, (2018).

675 <https://it.assam.gov.in/portlet-level-1/it-policy>.

676 [https://www.odisha.gov.in/Application/uploadDocuments/document/DOC20190205\\_184607.pdf](https://www.odisha.gov.in/Application/uploadDocuments/document/DOC20190205_184607.pdf).

677 [https://www.business-standard.com/article/companies/india-s-first-centre-of-excellence-for-gaming-vfx-launched-in-hyderabad-120021700509\\_1.html](https://www.business-standard.com/article/companies/india-s-first-centre-of-excellence-for-gaming-vfx-launched-in-hyderabad-120021700509_1.html)

678 <https://www.telangana.gov.in/PDFDocuments/Telangana-IMAGE-Policy-2016.pdf>.

679 <https://yas.nic.in/sports/about-sports-department>

680 National Sports Development Code of India 2011, <https://yas.nic.in/sites/default/files/File918.compressed.pdf>.

681 <http://www.indiakabaddi.org/2017-05-17-07-43-21/rules-regulation>

682 <https://www.volleyballindia.com/>

683 <https://www.basketballfederationindia.org/>

684 <https://www.hockeyindia.org/>

685 Clause 2.3, Introduction, NSDC 2011, <https://yas.nic.in/sites/default/files/File918.compressed.pdf>.

686 Clause 7.1, Categorisation of sports, NSDC 2011, <https://yas.nic.in/sites/default/files/File918.compressed.pdf>.

687 Clause 14.2, Long Term Development Plans, <https://yas.nic.in/sites/default/files/File918.compressed.pdf>.

688 Clause 10.8.2, Grants to NSFs, <https://yas.nic.in/sites/default/files/File918.compressed.pdf>.

689 In case less than 75% of the affiliated units participate, the scale assistance will be reduced by 25% and no grant shall be provided in case less than 50% of the affiliated units participate.

690 Please refer to the section on 'Skill versus chance' under Chapter 3 on page [\*] of this Report.

691 [https://indiacode.nic.in/bitstream/123456789/8643/1/act\\_27\\_of\\_1974.pdf](https://indiacode.nic.in/bitstream/123456789/8643/1/act_27_of_1974.pdf) (section 3 of both the acts)

692 With a game plan to realize animation and gaming hub, 5<sup>th</sup> November 2019, available at <https://www.thehindu.com/news/cities/Hyderabad/with-a-game-plan-to-realise-animation-and-gaming-hub/article19988223.ece>.

693 <https://indianabeats.com/sports-culture-in-india-cricket-vs-other-sports/>

694 <https://economictimes.indiatimes.com/news/sports/indias-record-in-olympic-sports-is-poor-but-that-could-change-soon/articleshow/66187501.cms> ,

695 Humphrey v. Viacom, Case No. 06-2768 (DMC) (D.N.J., June 20, 2007).

696 Scott Nover, The rise of daily fantasy and sports betting has created an economy of its own, Vox, 29<sup>th</sup> January 2020, <https://www.vox.com/2020/1/29/21112491/daily-fantasy-sports-betting-dfs-merch-analysis-weatherman>.

697 <https://sproutsocial.com/insights/social-media-and-fantasy-sports/>.

698 <https://www.moneycontrol.com/news/trends/sports-trends/do-you-play-fantasy-sports-you-may-be-watching-more-actual-sports-says-a-study-4479681.html>.

699 <https://m.economictimes.com/news/sports/fantasy-sports-users-consume-more-sports-study/articleshow/77804200.cms>

700 IFSG, supra note 8, at 7, 21.

701 [https://fisherpub.sjc.edu/cgi/viewcontent.cgi?article=1052&context=sport\\_undergrad#:~:text=1%20was%20found%20that%20fantasy%20sport%20participation%20increased%20consumption%20of,team%20than%20their%20fantasy%20teams.&text=Imagine%20this%20scenario%3B%20you're,teams%20stadium%20watching%20a%20game.,https://scholars.unh.edu/cgi/viewcontent.cgi?article=1314&context=honors](https://fisherpub.sjc.edu/cgi/viewcontent.cgi?article=1052&context=sport_undergrad#:~:text=1%20was%20found%20that%20fantasy%20sport%20participation%20increased%20consumption%20of,team%20than%20their%20fantasy%20teams.&text=Imagine%20this%20scenario%3B%20you're,teams%20stadium%20watching%20a%20game.,https://scholars.unh.edu/cgi/viewcontent.cgi?article=1314&context=honors)

702 <https://yas.nic.in/sites/default/files/Categorization%20of%20sports%20disciplines.pdf>.

703 KMPG-IFSG, supra note, at 11.

704 IANS, IFSG to support 13 promising athletes, Business Standard, 5<sup>th</sup> December 2018, [https://www.business-standard.com/article/news-ians/ifsg-to-support-13-promising-athletes-118120500628\\_1.html](https://www.business-standard.com/article/news-ians/ifsg-to-support-13-promising-athletes-118120500628_1.html).

705 Vishakh Ranjit, Governance models for esports, available at <https://www.ikigilaw.com/governance-models-for-e-sports/>.

706 Vishakh Ranjit, Complying with the National Sports Development Code of India 2011, available at <https://www.ikigilaw.com/complying-with-the-national-sports-development-code-of-india-2011/>

707 Para 6.1, the National Sports Development Code of India 2011.

708 Para 8.3 and 8.4, Recognition of National Sports Federations, the National Sports Development Code 2011.

709 Para 10, Grants to National Sports Federation, the National Sports Development Code of India 2011.

710 MYAS gives INR 2 lakhs to an NSF for organizing a senior championship per year.

711 MYAS gives INR 4 lakhs to an NSF for organizing a junior championship per year.

712 MYAS gives INR 6 lakhs to an NSF for organizing a sub-junior championship per year.

713 MYAS gives INR 1 lakh to an NSF for organizing each of the 6 regional championships.

714 MYAS gives INR 10 lakhs to an NSF for organizing a world cup, Commonwealth Games of Asian Games. For any other international tournament organized in India, assistance of INR 6 lakhs is provided.

715 Please refer to the section on 'Digital gaming as a profession' under Chapter 2 of this Report.

716 <https://www.roundhillinvestments.com/research/esports/esports-viewership-vs-sports>.

717 <https://www.gamersclassified.com/latest-features/studying-the-characteristics-of-an-esports-pro/>

718 <https://edition.cnn.com/2011/11/22/world/asia/south-korea-gaming/index.html>. The Youth Protection Revision Act 2011, commonly known as “**Shutdown Law**” in South Korea, forbids children between age 16 and below to play between 00:00-6:00 hours.

719 <https://www.sportbusiness.com/news/japanese-government-launches-initiative-to-lift-esports/>

720 <https://britishesports.org/news/grassroots-esports-support-lessons-to-learn-from-sweden-other-countries/>

721 <https://www.hindustantimes.com/brand-stories/2020-the-up-and-coming-year-for-indian-gaming-industry/story-fzdh2xyucvxf5doomuoqv.html> .

722 <https://newzoo.com/insights/infographics/indian-gamer-2017/>.

723 <http://esportsfederation.in/>.

724 Anirudh Rastogi and Sarthak Doshi, The case for including India's video gamers in sports quota, available at <https://qz.com/india/1773708/why-india-must-reat-league-of-legends-clash-royale-as-sports/>.

725 <http://www.e-sports.or.kr/>

726 <http://jesu.or.jp/>

727 <https://www.cbsnews.com/news/college-esports-universities-launch-degrees-in-esports/>

728 <https://www.forbes.com/sites/insertcoin/2013/07/14/the-u-s-now-recognizes-esports-players-as-professional-athletes/#4251bca3ac9e>

729 <https://britishesports.org/news/grassroots-esports-support-lessons-to-learn-from-sweden-other-countries/>

730 <https://esportsinsider.com/2019/02/the-chinese-government-recognises-esports-as-a-profession/#:~:text=On%20Jan.,%E2%80%9D%20and%20%E2%80%9Cesports%20players%E2%80%9D>

731 <https://thenextweb.com/insights/2020/01/24/dutch-department-defense-csgo/>

732 <https://seoulz.com/esports-in-korea-a-complete-breakdown-of-the-korean-gaming-culture/>

733 <https://seoulz.com/esports-in-korea-a-complete-breakdown-of-the-korean-gaming-culture/>

734 <https://gammalaw.com/five-key-ways-governments-getting-involved-in-esports/>

735 <https://esportsinsider.com/2019/02/the-chinese-government-recognises-esports-as-a-profession/#:~:text=On%20Jan.,%E2%80%9D%20and%20%E2%80%9Cesports%20players%E2%80%9D>

736 <https://www.pcgamer.com/korean-e-sports-association-proposes-minimum-salaries-for-pro-gamers/>

737 <https://www.pcgamer.com/korean-e-sports-association-proposes-minimum-salaries-for-pro-gamers/>

738 <https://www.hollandtradeandinvest.com/key-sectors/creative-industries/online-gaming-industry>

739 <https://www.latimes.com/business/story/2019-07-19/beijing-pushing-esports-could-cause-culture-clashes>

740 [https://www.gamasutra.com/view/news/286852/South\\_Korea\\_cracks\\_down\\_on\\_cheaters\\_with\\_law\\_targeting\\_illicit\\_game\\_mods.php](https://www.gamasutra.com/view/news/286852/South_Korea_cracks_down_on_cheaters_with_law_targeting_illicit_game_mods.php)

741 [https://www.espn.in/esports/story/\\_/id/25714947/tokyo-announces-plans-two-day-esports-event-2019](https://www.espn.in/esports/story/_/id/25714947/tokyo-announces-plans-two-day-esports-event-2019)

742 <https://www.esports.net/news/industry/chinas-new-plans-national-esports-scene/>

743 Ministry of Youth Affairs and Sports, List of recognised national sports federations for the year 2019, available at <https://yas.nic.in/sites/default/files/Listof%20RecognizedSports%20Bodies.pdf>.

744 Ministry of Youth Affairs and Sports, List of recognised national sports federations for the year 2019, available at <https://yas.nic.in/sites/default/files/Listof%20RecognizedSports%20Bodies.pdf>.

745 See supra note 12

746 PANDIT DEENDAYAL UPADHYAY NATIONAL WELFARE FUND FOR SPORTSPERSONS 1982, [https://yas.nic.in/sites/default/files/NWFS\\_Scheme%2022092017.pdf](https://yas.nic.in/sites/default/files/NWFS_Scheme%2022092017.pdf)

747 'Press Release - Sports Authority Of India, Ministry Of Youth Affairs And Sports - Government Of India' (Sportsauthorityofindia.nic.in), [https://sportsauthorityofindia.nic.in/printcontare1.asp?ls\\_id=655](https://sportsauthorityofindia.nic.in/printcontare1.asp?ls_id=655).

748 Ministry of Youth Affairs and Sports, 'Board & Lodging Facilities to The National Campers During Transit National Camps At Delhi' (2008).

749 High Court of Delhi, in Civil Writ Petition No.7868 of 2005, in the matter of Indian Hockey Federation

750 Narinder Batra v. Union of India, 2009 SCC Online Del. 480, para 85 and 86.

751 <https://govinsider.asia/security/four-ways-governments-are-using-gamification/>; <https://elearningindustry.com/gamification-used-government>

752 Piloting other technological interventions as aids to teachers under 'Draft National Educational Policy, 2019', Page 62, available at [https://mhrd.gov.in/sites/upload\\_files/mhrd/files/Draft\\_NEP\\_2019\\_EN\\_Revised.pdf](https://mhrd.gov.in/sites/upload_files/mhrd/files/Draft_NEP_2019_EN_Revised.pdf)

753 Ministry of Education, National Policy on Information and Communication Technology in School Education, page 3, available at [https://mhrd.gov.in/sites/upload\\_files/mhrd/files/upload\\_document/revised\\_policy%20document%20ofICT.pdf](https://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/revised_policy%20document%20ofICT.pdf)

754 Swachh Bharat Abhiyan aims to create sanitation and waste management facilities in rural and urban area.

755 Yatri Suraksha is a social security scheme that aims to provide insurance cover to individuals involved in road or rail accidents leading to death or disability.

756 Nirbhaya Nari is a government portal that gives access to information on women safety and other services targeted to create a safe environment for women in India.

757 [http://www.mospi.gov.in/sites/default/files/reports\\_and\\_publication/statistical\\_publication/social\\_statistics/Chapter%208%20-National%20redressal.pdf](http://www.mospi.gov.in/sites/default/files/reports_and_publication/statistical_publication/social_statistics/Chapter%208%20-National%20redressal.pdf)

758 Ministry of Health and Family Welfare, 'New Pathways New Hope, National Mental Health Policy of India, (Oct 2014), available at [https://nhm.gov.in/images/pdf/National\\_Health\\_Mental\\_Policy.pdf](https://nhm.gov.in/images/pdf/National_Health_Mental_Policy.pdf).

759 Ministry of Communications and Information Technology, 'About National e-Governance Division', available at <https://necg.gov.in/node/67>.

760 Ministry of Communications and Information Technology, 'National e-Governance Plan 2.0 "E- Kranti"', available at <https://necg.gov.in/node/67>.

761 <https://meity.gov.in/writereaddata/files/Framework%20for%20Citizen%20Engagement%20in%20NeGP.pdf>

762 Ministry of Electronics and Information Technology, About Digital India, <https://csc.gov.in/digitalIndia>

763 Aadhar is a unique identification number issued by UIDAI that serves as proof of identity and address on the basis of biometric data. It is used to provide benefits to Indian citizens and enables them to e-sign documents using Aadhar.

764 myGov.in is a national citizen engagement platform where people can share ideas on and be involved with matters of policy and governance.

765 UMANG is a Unified Mobile Application which provides access to central and state government services including Aadhar, Digital Locker, PAN, Employee Provident Fund services etc.

766 Digital Locker helps citizens digitally store important documents like mark sheets, PAN, Aadhar, and degree certificates.

767 PayGov facilitates online payments to all public and private banks.

768 Mobile Seva aims at providing government services through mobile phones and tablets.

769 The World Bank, Literacy rate, adult total (percentage of people between age 15 and above), available at <https://data.worldbank.org/indicator/SE.ADT.LITR.ZS>

770 <https://www.citypopulation.de/en/world/bymap/LiteracyRates.html>

771 Tanushree Chandra, Literacy in India: The gender and age dimension, Observer Research Foundation, 31<sup>st</sup> October 2019, available at <https://www.orfonline.org/research/literacy-in-india-the-gender-and-age-dimension-57150/>.

772 Please see the section on 'Digital games and gamification provide unique solutions in education' under Chapter 2 of this Report.

773 <https://www.fenews.co.uk/featured-article/31300-gamifying-learning-making-education-engaging-and-memorable-gamification>;  
<https://www.education.gov.au/national-stem-education-resources-toolkit/gamification>.

774 Aidan Mullaney, U.S. Dept of Ed Investing Big Money into Educational Game Development, 15<sup>th</sup> July 2013, available at <https://www.gamification.co/2013/07/15/us-doc-investing-in-educational-games-development/>

775 World Government Summit and Oxford Analytica, Gamification and the Future of Education (2016), available at <https://www.worldgovernmentssummit.org/api/publications/document?id=2b0d6ac4-e97c-6578-b2f8-ff000a7ddb6>.

776 Para 4.25 and 4.27, the National Education Policy 2020, Ministry of Human Resource Development.

777 World Economic Forum, 'Global Gender Gap Report', available at <https://mail.google.com/mail/u/2?ui=2&ik=764830de05&attid=0.1&permmmsgid=msg-https://www.thelancet.com/action/showPdfPii=S2215-0366%2819%2930475-4>.

778 <https://www.thelancet.com/action/showPdfPii=S2215-0366%2819%2930475-4>.

779 ETHHealthWorld, The stroke disease burden in India has increased nearly 100% : Indian Stroke Association, 20<sup>th</sup> December 2019, available at <https://health.economictimes.indiatimes.com/news/industry/the-stroke-disease-burden-in-india-has-increased-nearly-100-indian-stroke-association/72895241>.

780 Arvind Kasthuri, Challenges to Healthcare in India - The Five A's, Indian Journal of Community Medicine, Jul-Sep 2018, 43(3), page 141–143, available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6166510/>.

781 Please see the section on 'Addiction and mental health' under Chapter 2 of this Report.

782 Please see the section on 'Digital games and gamification benefit the healthcare sector' under Chapter 2 of this Report.

783 Brain and Mind Centre (University of Sydney) and Queensland University of Technology, Gamification in Apps and Technologies for Improving Mental Health and Well-Being: Systematic Review, Volume 6 (2019), available at <https://mental.jmir.org/2019/6/e13717/>

784 <https://www.digitalhealthmalaysia.org/about-dhm>

785 US Food and Drug Administration, Device Software Functions Including Mobile Medical Applications, 11<sup>th</sup> May 2019, <https://www.fda.gov/medical-devices/digital-health/device-software-functions-including-mobile-medical-applications>;  
<https://www.gov.uk/government/publications/medical-devices-software-applications-apps>

786 <https://www.medicalnewstoday.com/articles/318913#Nomo>

787 <https://journals.sagepub.com/doi/full/10.1177/1046878116683581>

788 <https://clearningindustry.com/gamification-used-government>

789 <https://economictimes.indiatimes.com/opinion/interviews/gaming-can-solve-social-sector-problems-as-well-raja-paharia-bunchball-founder/articleshow/50991690.cms?from=mdr>

790 Ibid.

791 <https://govinsider.asia/innovation/indonesia-using-games-to-understand-slang/>

792 <https://medicalfuturist.com/swedish-speed-camera-lottery-healthy-living/>

793 Colin Wood, Gamification: Governments Use Gaming Principles to Get Citizens Involved, 28<sup>th</sup> August 2013, <https://www.govtech.com/Gamification-Governments-Use-Gaming-Principles-to-Get-Citizens-Involved.html>.

794 Subhdeep Jash, How gamification can help nudge citizens to be more participatory, 2<sup>nd</sup> August 2019, available at <https://economictimes.indiatimes.com/blogs/et-commentary/how-gamification-can-help-nudge-citizens-to-be-more-participatory/>.

795 Information Technology Act, 2000, <https://www.indiacode.nic.in/bitstream/123456789/1999/3/A2000-21.pdf>.

796 Personal Data Protection Bill, 2019 (as introduced in the Lok Sabha), [http://164.100.47.4/Bills/Texts/LSBill/Texts/Asintroduced/373\\_2019\\_LS\\_Eng.pdf](http://164.100.47.4/Bills/Texts/LSBill/Texts/Asintroduced/373_2019_LS_Eng.pdf). The PDP Bill was introduced in Parliament in December 2019, and is currently being examined by a joint parliamentary committee-  
[http://loksabhaph.nic.in/Committee/CommitteeInformation.aspx?comm\\_code=73&tab=1](http://loksabhaph.nic.in/Committee/CommitteeInformation.aspx?comm_code=73&tab=1).

797 The Indian government had appointed a committee to examine the issue of regulation of non-personal data in September 2019. The committee had released its report on non-personal data governance framework in July 2020- [https://static.mygov.in/rest/s3fs-public/mygov\\_159453381955063671.pdf](https://static.mygov.in/rest/s3fs-public/mygov_159453381955063671.pdf).

798 Clause 22 of the PDP Bill.

799 Clause 24 of the PDP Bill.

800 Clause 25 of the PDP Bill.

801 Rule 5, SPDI Rules.

802 While collecting their data, the users must be informed about- (a) their data being collected; (b) the purpose for collecting their data; (c) the persons/entities who will have access to their data; (d) the name and address of the agency collecting the information and the agency that will retain the information. Rule 5(3), SPDI Rules.

803 Clause 7 of PDP Bill.

804 Clause 11(2) of the PDP Bill.

805 Clause 11(3) of the PDP Bill.

806 Clause 17 of the PDP Bill.

807 Clause 18 of the PDP Bill.

808 Clause 19 of the PDP Bill.

809 Clause 20 of the PDP Bill.

810 Clauses 12-14 of the PDP Bill.

811 Clause 26 of the PDP Bill.

812 Clause 27 of the PDP Bill.

813 Clause 30 of the PDP Bill.

814 Clause 29 of the PDP Bill.

815 Clause 28 of the PDP Bill.

816 Para 4.1 of the NPD Report.

817 Constitution of a committee of experts to deliberate on a data governance framework, Ministry of Electronics and Information Technology, Government of India, 13 September 2019, [https://www.meity.gov.in/writereaddata/files/constitution\\_of\\_committee\\_of\\_experts\\_to\\_deliberate\\_on\\_data\\_governance-framework.pdf](https://www.meity.gov.in/writereaddata/files/constitution_of_committee_of_experts_to_deliberate_on_data_governance-framework.pdf)

818 Report by the committee of experts on non-personal data governance framework, July 2020, [https://static.mygov.in/rest/s3fs-public/mygov\\_159453381955063671.pdf](https://static.mygov.in/rest/s3fs-public/mygov_159453381955063671.pdf).

819 Para 5.3(ii) of the NPD Report. Community NPD is one of the three categories of NPD suggested in the NPD Report. Only community NPD in the form of raw/factual datasets will be subject to the requirement of mandatory data sharing without any compensation.

820 Para 7.3(i) of the NPD Report.

821 Para 6.1(ii) of the NPD Report.

822 Para 6.2(iv), 6.3(iv) and 6.3(v) of the NPD Report.

823 Para 7.3(i) of the NPD Report.

824 Para 7.4(iii) of the NPD Report.

825 Paras 7.1 and 7.2 of the NPD Report.

<sup>826</sup> <https://scroll.in/field/966959/coronavirus-online-fantasy-sports-industry-in-india-takes-a-hit-with-absence-of-games>  
<sup>827</sup> <https://theconversation.com/playing-video-games-can-ease-loneliness-during-the-coronavirus-pandemic-134198>  
<sup>828</sup> <https://www.abc.net.au/news/2020-03-30/social-apps-for-coronavirus-quarantine/12094828>  
<sup>829</sup> <https://theconversation.com/playing-video-games-can-ease-loneliness-during-the-coronavirus-pandemic-134198>  
<sup>830</sup> <https://techland.time.com/2011/09/19/foldit-gamers-solve-aids-puzzle-that-baffled-scientists-for-decade/>  
<sup>831</sup> <https://indianexpress.com/article/education/covid-19-survivor-iti-ians-develop-a-game-to-spread-awareness-about-coronavirus-pubg-6388574/>  
<sup>832</sup> <https://economictimes.indiatimes.com/news/politics-and-nation/union-health-minister-harsh-wardhan-launches-video-game-to-spread-awareness-about-covid-19/articleshow/77659760.cms?from=mdr>  
<sup>833</sup> <https://www.livemint.com/news/india/how-gaming-industry-is-fighting-the-battle-against-covid-19-11585748266505.html>  
<sup>834</sup> <https://brandequity.economictimes.indiatimes.com/news/marketing/nodwin-gaming-adopts-playaparttogether-campaign-for-india/75288284>





