

Research policy submission

**Ukie submission to
the DCMS
Committee inquiry
on immersive and
addictive
technologies**

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ukie

DCMS Committee inquiry on immersive and addictive technologies.

Response from Ukie, the Association for UK Interactive Entertainment

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1. Ukie is the trade body for the UK's games and interactive entertainment industry. A not-for-profit, it represents more than 400 games businesses of all sizes from start-ups to multinational developers, publishers and service companies, working across online, mobile, consoles, PC, esports, virtual reality and augmented reality. Ukie aims to support, grow and promote member businesses and the wider UK games and interactive entertainment industry by optimising the economic, cultural, political and social environment needed for businesses to thrive.
2. Ukie welcomes the opportunity to respond to this inquiry. Our response provides the Committee with a robust understanding of the role the games industry is playing as a leading part of the UK's creative and tech industries.
3. Our response demonstrates several important points we wish the Committee to understand:
 - a. our industry has track record over the last three decades of taking responsible action to protect consumers, on age ratings, parental controls, internet safety and other self-regulatory measures
 - b. we have been a driver of and a test-bed for many of the most exciting technologies of the future, including AI, VR/AR and more, and continue to innovate
 - c. there is a clear distinction between our industry and the gambling industry which we will continue to work actively with the regulatory authorities to maintain. Our members do not undertake or endorse any gambling activities
 - d. esports is an exciting new industry in which we are again leading the way on consumer protection, and in which the UK can be a global leader.
4. The UK is home to over 2,260 games companies spread across England, Scotland, Wales and Northern Ireland with economic clusters including those centred around Leamington, Sheffield, Dundee and Cardiff. Two-thirds of these companies were founded after 2010. While three quarters employ 50 people or fewer, the UK is also host to many larger studios and a high number of international and European HQs, such as those of Microsoft and Sony.
5. The recently published 'Screen Business: How tax incentives help power economic growth across the UK'¹, produced by Olsberg SPI and Nordicity and commissioned by the British Film Institute, revealed that in 2016 the UK games industry directly employed 20,430 people and contributed £1.52bn in GVA to the UK economy. With indirect economic and spillover impacts included, these

¹ British Film Institute, "Screen Business", Oct 2018

numbers rise to show the total industry supporting 47, 620 jobs and contributing a total of £2.87bn in GVA.

6. The report showed that with £1.25bn spent on games development in the UK in 2016, employment in the sector is at record levels, with 16,140 FTEs directly employed in development and publishing roles, contributing over £1.35bn in GVA. The strength of UK games companies was also demonstrated in the significant inward investment to the industry, with at least £1.75bn of overseas investment throughout 2015-2017.
7. The 'Screen Business' report also showed for the first time the economic contribution of the fast-growing UK esports industry; in 2016, UK esports provided job roles for 470 FTEs across a sector already generating £18.4m in GVA. The UK is the 5th² largest video game market in 2017 in terms of consumer revenues, after China, USA, Japan and Germany and worth £5.11bn.
8. Blending technological innovation with imagination and design, we are a growing part of the UK's creative industries sector and one of the six economic sectors noted by the Government to be of particular strategic importance in the negotiations as we leave the EU and in the post-Brexit environment. Whether it is in AI, data analytics or virtual reality, we put into practice and develop some of the innovations that can and will be increasingly applied elsewhere in the economy.

The immersive media industry: what factors have led to the UK's success in the gaming sector? What skills are needed, and what action should the Government take, to ensure the UK remains a key player in gaming and VR/AR? Is the funding to support digital technologies and skills being allocated appropriately? What has been the impact of Video Games Tax Relief, and what opportunities might there be to build on it?

9. The UK Games industry is export driven, according to our own research 61% of games companies generate more than three quarters of their income from outside of the UK³. It is a major generator of intellectual property and a leading example of the UK's reputation as a home for the creative, high-tech, knowledge-intensive companies that the country needs to succeed in the 21st century. By any measure, the industry is now one of the UK's major creative sectors, a source of economic growth and a mainstream part of British culture.
10. We are in a dynamic and highly competitive global market. Maintaining our position as a global leader must be considered in this context, especially considering the large number of small, young

² <https://ukie.org.uk/research#Market>

³ Ukie Member survey 2017

independent companies vulnerable to adverse market forces. The competitive edge of the UK games industry has been, in part, owing to its rich history of innovation and pioneering talent. This must be nurtured and maintained in order to keep the UK games industry as a global leader.

11. It is imperative that the UK not only maintains but improves the flow of skills so that great games can continue to be made and sold. The UK will be seen an attractive place for investment in the games sector only if there is confidence in the quality of talent and games development.
12. This also means diverse talent and the sector is committed to an equal, diverse and inclusive workforce. Ukie are developing a programme of work with the sector that will help games businesses to put EDI at the heart of their businesses and recruitment processes, provide the tools and best practice guides that will help UK games businesses to implement positive change to create diverse workforces of the future and create and support initiatives that will inspire people from diverse backgrounds to consider careers in the games industry.
13. A recent Government report found that 21% of people in the UK lack full basic digital skills⁴ and there is a widely reported tech skills gap. The video games industry requires specialist and newly emerging skills – 61% of respondents to Ukie’s State of Play⁵ survey said that they relied on highly skilled international talent to make innovative new products and services. Our recent submission to the Migration Advisory Committee demonstrated that there is a shortage of a number of games industry job roles in the UK, due to the lack of skills covering programmers, artists, designers producers and more.
14. In recent years Ukie has been at the forefront of advocating for changes to the UK’s educational system to ensure that the creative, computational and critical thinking skills which are needed for the future growth of the UK’s economy are properly embedded in schools and classrooms⁶. The Ukie-led, Digital Schoolhouse Programme⁷, empowers and supports teachers in their delivery of the computer science curriculum by providing creative workshops where both teachers and pupils learn about computing fundamentals through play-based learning techniques. Our national programme has established over 30 Digital Schoolhouses across the UK, which reaches over 30,000 pupils and supports over 5,000 teachers.

4 <https://www.gov.uk/government/publications/essential-digital-skills-framework/essential-digital-skills-framework>

5 <http://ukie.org.uk/brexit>

6 <http://ukie.org.uk/content/next-gen-skills-campaign-launched>

7 www.digitalschoolhouse.org.uk

15. Games are a relatively new creative industry, and despite significant progress over the last few Parliaments including the introduction of the hugely important Video Games Tax Relief (VGTR) and UK Games Fund, public funding for the sector is still poorly understood, coordinated and designed. This inhibits further investment, growth and exports in one of the UK's fastest growing export sectors. For the other creative screen sectors, the availability of public funding has led to innovative and diverse content, creating new markets, supporting new talent and enriching cultural life.
16. There exist some programmes of public support for the UK games industry including VGTR and the UK Games Fund.⁸ The VGTR has been great for games development and great for the UK. For every £1 invested into the games industry via VGTR, an additional £4.00 in GVA is generated for the UK economy⁹. The result is that the VGTR helps to maintain our competitiveness – incentivising games development in this way, rather than penalising it, ensures that the UK remains an attractive and competitive place to develop games.
17. However, more consistent and more substantial funds are needed to enable the sector to develop further. We recommend that the UK games industry be given access to the same industrial and cultural funds – including National Lottery money – that other creative sectors receive. This will bring benefit to building commercially sustainable businesses, address the well documented funding gap¹⁰ beyond the scope of existing schemes and support cultural and initially non-commercial projects.
18. A further advantage of the UK games industry is its regional presence. The industry is spread across the UK in various key regional hubs which take advantage of local strengths. From Dundee to Brighton, these are clusters of talent, specialisms, and networks. Ukie's UK Games Map provides a comprehensive, interactive dataset of the sector which is updated in real time.¹¹
19. The stable regulatory environment in the UK has been hugely beneficial to the UK games industry, providing confidence and certainty for growth and investment. Our membership of the European Union, with free movement of labour and access to the single market has also been important to the sector's growth. Maintaining aligned or harmonised laws with the EU in relevant areas such

⁸ <https://ukgamesfund.com>

⁹ BFI 2018

¹⁰ Bazelgette independent review of the Creative Industries, 2018

¹¹ www.gamesmap.uk

as trade and IP will be an important step in avoiding barriers and costs to businesses trading globally from the UK.

20. It must also be noted that the industry takes our responsibility to our players extremely seriously. Over the last 30 years we have been ahead of the curve in taking significant self-regulatory measures on issues such as age ratings, internet safety and parental controls, as detailed below, and by providing parents and players with sources of guidance and advice, such as through the industry funded AskAboutGames website, see below. Trust in the UK games industry to self-regulate should continue to be encouraged to maintain the attractiveness of the UK as a location for games development.

The future of eSports in the UK: what is the future for the industry, in terms of future growth, ethics and regulation? How might the links between traditional sports and their electronic counterparts be strengthened?

21. Esports is a rapidly growing sector both worldwide and in the UK. It's predicted that the total esports audience will grow from 395m to 580m (2016-2021)¹². By 2021, its expected that a quarter of the world's population will be aware of esports¹³ and the global esports market is set to grow from \$630m (2017) to \$1.6bn (2022)¹⁴. In the UK, the already diverse audience¹⁵ (31% are female, 63% are over 21) is expected to grow 7.5% year-on-year to reach 8 million people by 2019¹⁶. As a result of this success, the UK is the home to some of the world's top esports talent which is attracting global investment. One of the UK's leading esports teams, Team Dignitas were acquired by the owners of the US basketball's Philadelphia 76ers in September 2016.

22. Government, industry and the investment community can work together to make the UK an esports powerhouse and to play a constructive role in the growth of global esports. A thriving esports sector creates jobs and makes a clear statement about the UK's ambition to be a world leader in technology, innovation, digital trade and the creative industries.

23. In our 2016 white paper¹⁷, we commented that there is no clear need for esports-specific regulation. For example, current consumer protections laws already provide substantial safeguard for consumers participating in esports whilst our intellectual property laws are among some of

¹² (Newzoo, Aug 2018)

¹³ (Newzoo, Aug 2018)

¹⁴ (PwC, Jun 2018)

¹⁵ <https://newzoo.com/insights/infographics/uk-esports-audience-2016/>

¹⁶ <https://ukie.org.uk/sites/default/files/eSports%20whitepaper.pdf>

¹⁷ <https://ukie.org.uk/sites/default/files/cms/docs/Ukie%20whitepaper%20-%20growing%20the%20UK%20as%20an%20esports%20hub.pdf>

the strongest in the world affording appropriate protection to rights holders. These circumstances must be maintained in order for the developers who create the games and the publishers who publish them are able to continue to create and innovate. Furthermore, the games industry has a strong history of self-regulation, which has continued with esports. This approach has allowed esports to develop and flourish.

24. At grassroots the British Esports Association¹⁸ was established to foster future British talent, increase the awareness of esports and provide expertise and advice and runs programmes in schools and colleges as well as the British Esports Championships for Schools and HE¹⁹. Ukie's Digital Schoolhouse Schools Esports Tournament²⁰ gives another example of the impact of esports in the UK. Now in its 3rd year the tournament provides an immersive careers education experience and emphasises the importance of communication, creativity, collaboration and critical thinking for a future workforce, enabling students to realise the breadth of career opportunities available to them. Students aged 12 - 18 years participated not only as players but were also recruited to manage the tournament within their schools taking on valid industry roles such as event management, production, tournament administration, community management and on-screen talent. The impact on students taking part were hugely positive ranging from increased confidence, improved attendance and increased interest in computing and STEM subjects.

The wider uses of “gamification” and VR/AR: how is “gamification” being used to promote positive outcomes? How are other industries and art forms using gaming and VR/AR? What are the limitations or challenges of “gamification”? How successfully is the Government's 'Culture is Digital' agenda advancing immersive technologies?

25. Games technologies are being deployed to drive innovation across many other sectors of the economy. From Grand Theft Auto training autonomous vehicles²¹ to the radar technology from Xbox Kinect being used in Tesla's warehouse robots, games and interactive entertainment are playing a central role in the development and commercialisation of new technologies.
26. As virtual and augmented reality become increasingly popular, it is the games and interactive entertainment sector that is developing the technology and producing the use cases which are going on to find traction in other sectors. For example, in the medical sector VR is enabling

¹⁸ <http://www.britisheports.org/>

¹⁹ <http://www.britisheports.org/794/championships.html>

²⁰ <http://www.digitalschoolhouse.org.uk/esports>

²¹ <https://techcrunch.com/2017/01/11/training-self-driving-cars-on-the-streets-of-los-santos-with-gta-v-just-got-easier/>

surgeons to train on virtual patients, in a safe and repeatable environment²², and VR is increasingly being used therapeutically such as in pain management²³.

27. In clinical research, artificial intelligence and machine learning, developed initially for and by the games industry, offers deep and repeatable learning environments and the opportunity to gather and process large amounts of data (and all done with appropriate levels of consent). The mobile game Sea Hero Quest²⁴ combines compelling and entertaining game play with clinical research to advance our understanding of dementia. Since its launch, 3.5 million people in 193 countries have played Sea Hero Quest and contributed the equivalent of 15,000 years of similar lab-based research to create the first global benchmark for how humans navigate.

28. Games also play a significant part in students achieving learning objectives. Good game design instils systems thinking, computational thinking and an understanding of good design principles and can be applied across the entire education system.

29. It is not simply a matter of providing students with external reward to give them immediate and simple motivators, usually in the form of points, badges, and leader board rankings. As such it is not a new concept but a tool employed by humans for millennia.

Tackling digital and gaming addiction: what are digital addiction and gaming addiction, and how do they differ from other forms? What is the scale of the problem and what support do those with digital or gaming addiction need? What role does design play in gaming addiction, or the addictive use of social media, and how might that be managed? Are extra measures needed to protect children from these forms of addiction? How well co-ordinated are Government efforts on these forms of addiction? What can be learned from other countries?

30. An estimated 32m people play games in the UK and the average player is in their mid-thirties²⁵. Globally an estimated 2.2 billion²⁶ play games, the overwhelming majority do so as part of a well-rounded lifestyle. Most people who play video games are adults, and as many women play video games as men across a range of genres and platforms. Data²⁷ shows parents are actively engaged in purchasing decisions, setting limits, and playing video games with their children²⁸. However, the

²² http://web.stanford.edu/group/sailsbury_robotx/cgi-bin/salisbury_lab/?page_id=205

²³ <https://www.birmingham.ac.uk/news/latest/2013/06/21-June-Virtual-world-to-help-relieve-patients-pain.aspx>

²⁴ <http://www.seaheroquest.com/site/en/>

²⁵ <https://www.nesta.org.uk/report/did-you-really-take-a-hit-understanding-how-video-games-playing-affects-individuals/>

²⁶ <https://newzoo.com/insights/articles/the-global-games-market-will-reach-108-9-billion-in-2017-with-mobile-taking-42/>

²⁷ ESA 'Essential Facts 2018' (http://www.theesa.com/wp-content/uploads/2018/05/EF2018_FINAL.pdf)

²⁸ <http://www.digitalschoolhouse.org.uk/e-safety>

industry takes its responsibility to keep players safe and works hard to provide a number of tools plus advice on how to do so.

31. Video games can positively influence cognitive, motivational, emotional and social development. Studies show that video games have beneficial effects, including on children's vision and desire to learn²⁹. They can provide rich story worlds, creative canvasses, entertaining learning environments, pure entertainment, or ways to understand difficult topics such as civil rights and historical topics. They encourage critical thinking skills, empathy, and for many millions of players, highly valuable social platforms.³⁰ Games are a form of play, and play is an activity that is crucial to human development. It has been recognized by the United Nations High Commission for Human Rights as a right of every child. We believe play can be a force for good, and that games can provide educational, physiological, psychological, recreational and social benefits to players.
32. Mental health experts, top universities, research centres, leading academics and even the United Nations have cited the lack of evidence or scientific consensus around the concept of "gaming addiction." The UN children's welfare agency concluded there is "very little evidence" to demonstrate any significant number of children use digital technology, including video games, in a way that would be defined as "addiction." UNICEF further concludes, "no evidence exists to suggest that moderate use of any digital technology has a negative impact on children's brains." Conclusions also reached by the Royal College of Paediatrics and Child Health³¹.
33. The American Medical Association, the American Psychiatric Association, and the American Psychological Association have each declined to assess any level of video game playing as "addictive."
34. Careless use of addiction terminology downplays very real consequences while overstating the risk of harm for those who don't engage in harmful behaviour. The inappropriate use of the term "addiction" creates risks for the people who need treatment for other serious mental health issues and could make them vulnerable to misdiagnosis and unproven or unnecessary treatments.
35. Our commitment to player safety means the video game industry provides best-in-class ratings, parental controls, and other tools to help video game players and parents understand and manage

²⁹ UNICEF 'Children in a digital world report', Dec 2017 (https://www.unicef.org/publications/files/SOWC_2017_ENG_WEB.pdf)

³⁰ <https://www.theverge.com/2018/12/21/18152012/fortnite-was-2018s-most-important-social-network>

³¹ <https://www.rcpch.ac.uk/resources/health-impacts-screen-time-guide-clinicians-parents>

video game play for themselves and their families. In addition, we are committed to collaborating with mental health professionals, researchers, policy makers, players, and parents to understand what factors influence mental health and video game play.

Parental Controls

36. The industry takes online safety seriously at all levels – from game, platform and device level features, employing teams of trained moderators, content ratings and information to developing cutting edge and innovative solutions using artificial intelligence and semantic analysis.

37. All consoles and all leading smartphone operating systems and app stores offer parental controls to help families keep track of the games they are playing and how long they are played for. Setting these up not only offers parents and carers a greater degree of control but provides families with an opportunity to agree how they will play games.

38. Importantly, tools are easily accessible for parents and carers to control:

- a. the time children spend on the game
- b. the type of game the child can access according to their age and age rating
- c. the ability to disable or insist on authorisation for any in-game spending, and
- d. safeguarding their child's online privacy

No other sector offers as sophisticated parental control tools as the video games sector.

39. While parental control tools are important, the industry also encourages parents and carers to take an active interest in the games played by their children. There is no substitute for talking to them about what they play, playing games with them and ensuring they understand how to use in game and platform specific tools and features such as friends lists, report tools, blocking, and that they feel they have someone they can tell if there is anything they feel uncomfortable with. Many of these messages about responsible play are about their online activity more generally and should be treated as such to avoid and/or limit unfortunate situations.

40. Other specific initiatives produced by the games industry to promote awareness and understanding include:

AskAboutGames:

41. AskAboutGames.com is a joint venture between the Video Standards Council (VSC) Rating Board and Ukie, run with input and advice from across the games industry. It was created as an online resource for parents and carers, as well as players, to explain PEGI game age ratings, how to play games safely and responsibly, and how parents and carers can help children play safely through the adoption of comprehensive parental controls across all consoles and devices.
42. The AskAboutGames website provides an independent place where consumers, and families in particular, can access good quality information and advice as to the suitability of certain games for children and adolescents. This site is further reinforced by the VSC Rating Board's own website which also offers information on parental controls and an ACI (additional consumer information) function which provides detailed, descriptive information of each and every game rated by the VSC Rating Board. The site has received over half a million visits over the last 3 years.

Age Ratings:

43. The voluntary Pan European Games Information (PEGI) system is recognised in law as the sole system used for age rating new console and PC games in the UK and is administered in the UK by the Video Standards Council (VSC). PEGI is used and recognised throughout Europe and is supported by the European Commission. Many thousands of games have been PEGI-rated since the scheme was devised and introduced in early 2003. It is important to note that in the UK, PEGI 12, 16 and 18 ratings are legally enforceable meaning that they cannot lawfully be supplied to persons below those respective age bars. There are also widespread measures adopted by the emerging esports industry in esports venues across the UK to ensure that games cannot be viewed by audience members (or played by participants) who are under the age rating for the game.
44. On smartphone and tablets, Google Android and Microsoft Windows platforms have adopted PEGI in the UK through their membership of IARC, the International Age Ratings Coalition. The majority of mobile customers are now protected under PEGI thanks to this initiative, while mobile developers have benefited from a more streamlined process.
45. The PEGI rating on a game confirms that it contains content suitable for a certain age group and above. So, a 7 rated game is suitable for everyone who is 7 years old or older while an 18-rated game is deemed suitable only for adults. Only 4% of games across Europe are rated 18+, and 49% of all games are rated suitable for all (rated 3). The ratings are supplemented by eight content descriptors, including those depicting violence, bad language, sexual content & drugs. The PEGI system is not, however, a measure of who will enjoy the game or how difficult that game is.

The links between gaming and gambling: what are the links between gaming and gambling? What are the effects of in-game spending, especially on children, and does it need stronger monitoring or regulation? What challenges and opportunities do gaming and eSports offer the gambling industry and how should that be managed?

46. The video games and interactive entertainment industry do not endorse gambling or offer gambling services.

47. Two separate issues have become interlinked in this topic: gambling on the outcome of competitive video games, sometimes using in-game content as the stake or prize known as “skin betting”; and the use of elements of chance within in-game monetisation, commonly referred to as loot boxes. These are different issues which we will address in order.

Skin betting

48. **Unauthorized trading of digital goods** is the practice of third-party websites selling or offering a market for others to sell or trade virtual items or virtual currency from games, typically in exchange for real money.

49. **Skins gambling (or skins betting)** constitutes a subset of unauthorized trading of digital goods. The term comes from cosmetic virtual goods known as ‘skins’; however, this practice may involve other virtual items or virtual currency from games. It is the practice of using digital goods:

- **Either as a mean to bet**, where a consumer uses digital goods from video games such as virtual currency to place bets on the outcome of professional sports games or games of chance on unauthorized marketplaces to try winning real money.
- **Or as an outcome of a bet**, where a consumer uses real money to place bets on the outcome of games of chance on unauthorized marketplaces to try winning digital goods from video games.

50. We wish to make it very clear that this is activity which video games companies – our members – do not support or authorise in any way and are actively working to prevent. It uses our members’ intellectual property in contravention of their terms and conditions. Furthermore, they are illegal gambling businesses being run without a license from the Gambling Commission.

51. Recently, a joint statement by 15 European Gambling Commissions³² raised the concern about illegal skin betting, stating: “Tackling unlicensed third-party websites offering illegal gambling

³² <https://www.gamblingcommission.gov.uk/news-action-and-statistics/news/2018/Blurred-lines-between-gambling-and-video-games.aspx>

linked to popular video games is a priority and the regulators are calling for the video games industry and technology platforms to play their part in helping crack down on these websites". Our members take technical and/or legal measures to enforce these prohibitions and are constantly working to ensure the safety of our players. We therefore welcome the opportunity to work with the Gambling Commission to stamp out such illegal activities.

52. In the UK Gambling Commission's annual report into young people and gambling,³³ skin betting was looked at for the first time. Only 3% of young people said they had engaged in skin betting. Whilst this is a serious issue, we believe it is important to see this in perspective.

Loot boxes

53. The question of loot boxes is entirely separate from and different to the issue of skin betting. There is no formal definition of "loot boxes"; the term broadly refers to optional purchases within a game which will give the player some kind of valuable in-game content, determined by chance. Purchasing loot boxes is not essential to progression in a game.

54. The question of loot boxes within video games has been considered by the Gambling Commission. The Commission were ultimately clear that such mechanics will not be seen as gambling unless the contents of the loot box can be sold on by the player to generate real economic value outside the game – if the prize is "money's worth". Where that is the case, they will require a gambling license.

55. As stated above, video games companies have no interest in offering gambling services. We will continue to work with the Gambling Commission to make sure our industry is fully informed by their guidance and avoids any activity that would require a gambling license.

56. Consumer protection law adds further clear rules within which games companies must and do operate. It is well understood by our industry that any misleading or aggressive selling practices are unacceptable and will be acted on by the relevant authorities. These rules give clear parameters within which in-game monetisation practices must be designed.

³³ <https://www.gamblingcommission.gov.uk/PDF/survey-data/Young-People-and-Gambling-2018-Report.pdf>

57. A further important factor is public opinion itself. Several high-profile games have seen backlash from their players over their use of in-game monetisation, including loot boxes, and have implemented changes as a result. Unlike many industries, games has a strong track record of global cooperation and sharing of best practices, working with our fellow trade bodies all over the world. We understand that as we innovate our own business models and technologies, we need to constantly listen and adapt to consumer feedback.

58. In summary, market forces and existing consumer protection and gambling laws are already determining how loot boxes can be used. The industry is constantly evolving and looking for new ways to bring fun to our players, and it is important that a stable, easily-understood regulatory environment is maintained to allow that innovation to happen. Ukie, in turn will ensure the industry is kept informed of the relevant legal position.

Data security and infrastructure

59. The games industry was born digital and relies on a strong digital backbone to continuously deliver the best products and services to global audiences. The interaction and associated data flows between games, players and games platforms is intrinsic to the proper operation of games and the provision of fun, fair, safe and ethical interactive experiences for players. Our ability to collect and use anonymised data to develop new and exciting features and events in games, new business models and most importantly enhance players' experiences, significantly contributes to the innovation which distinguishes us from other creative sectors and has supercharged growth in our industry over recent years.

60. The games industry continues to push the boundaries of interactive entertainment. Some of the innovations and improvements provided for players thanks to the use of data include:

- Creating and sharing user generated games content,
- Compelling multi-player experiences,
- Building and managing large scale multiplayer communities,
- Understanding the player experience and iterating future releases, and
- Dynamically adjusting game difficulty.

61. In short, our industry simply would not exist in its modern form without the ability to access and analyse data. Every area that has seen rapid growth in recent years relied on its collection and interpretation. This includes the birth and rise to global dominance of mobile games, the integration of online gameplay in all platforms, the ongoing evolution of AI and the pushing of

boundaries in virtual and augmented reality. Clear and balanced regulation is vital if we are to continue breaking boundaries in future as well as continued free flow of data across borders.