

Digital, Culture, Media and Sport Committee

Oral evidence: Immersive and addictive technologies, HC 1846

Tuesday 30 April 2019, Abertay University, Dundee

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Watch the meeting

Members present: Damian Collins (Chair); Clive Efford; Paul Farrelly; Ian C. Lucas; Brendan O'Hara; Jo Stevens.

Questions 731 - 808

Witnesses

[I.](#) Colin Anderson, Commercial Director, Earthbound Games; Keeley Bunting, Senior Designer, Outplay; Tony Gowland, Founder, Ant Workshop; and Timea Tabori, National Co-ordinator for Women in Games in Scotland and Engine Programmer at Rockstar North.

Examination of witnesses

Colin Anderson, Keeley Bunting, Tony Gowland and Timea Tabori.

Q731 Chair: Good morning. I formally call the Committee to order and welcome you to the meeting this morning of the Digital, Culture, Media and Sport Select Committee as part of our inquiry into immersive and addictive technologies. We are delighted to be here in Dundee today at Abertay University and we are very pleased that Abertay University has been able to host the evidence session here this morning and also host the visit of the Committee yesterday.

We would like to welcome our panellists to the evidence session. Colin Anderson and Keeley Bunting, you both represent games companies that are based in Dundee and, Timea, I believe you are a graduate of Abertay University. We are interested in Tony's views on this as well, but perhaps you could each give us some insight into why you think Dundee has developed as an important cluster within the games sector and what has made it a place that has attracted people to come here to work and to study. Colin, if you could start and then we will work along the panel.

Colin Anderson: This is something that I can speak to directly because I know what brought me to Dundee, and I am sure it is the same for a lot of other people. It was the projects that were here. When I got involved in the games industry, there was nowhere else in Scotland that you could work in the games industry. The whole of the games industry was right here. Lemmings was a huge success, as I am sure you will have been hearing during your visit. The money that that created, the commercial success of it, helped to drive all sorts of innovation and also to bring people to the city.

That is the key thing that has been a constant in everything that I have seen throughout my career in the games industry, which is that in the games industry projects act as talent magnets for companies and for cities alike. When you have a successful project you generally have a successful business and when you have a successful business, that brings in talent from all over. I think you can see that if you look at the geography of the games companies around the country. If you look at where there are clusters, you will generally find that at some point in the past there was a successful game developed by a company in that area. For example, in Guildford there is Bullfrog with Populous, and Psygnosis based in Liverpool with its portfolio. You can see now the legacy of that and Dundee is certainly part of it.

Keeley Bunting: I moved here about a year and a half ago from London and I hate to admit it but before I been contacted by a recruiter I had not heard about Dundee. Then when I looked into it I was really amazed and really impressed. There is a variety of games companies here, which is fantastic, and there are two really strong universities that have games-related programmes. You have Abertay, which has a lot of game design, and you have DJCAD, which is part of the University of Dundee, which



has a strong arts programme. I think it is particularly attractive to games people because of the fact that this is a very creative city. When you go around you will see a lot of great sculptures, you will see people with every colour hair that you can imagine. There are lovely museums and galleries. They have PechaKucha nights here. There is also great street art. As an employee, there is a very good cost of living. You can find nice places to live here. There is also great infrastructure. They have Transit, grocery stores, nice restaurants. There is also lovely leisure. There is Olympia, which is the big pool. I am on a swim team there and it is fantastic. You can also go golfing, the waterfront is very attractive, and you have larger cities within reach, so you can have the best of both worlds. It is great because it is a hub where you basically have a sharing of ideas and people can come together and discuss best practices.

Timea Tabori: For me it was Abertay. I knew from a young age that I wanted to make games and when I was researching ways to get into the industry and what to study, I kept coming across Abertay. I am originally from Hungary and it drew me across borders to come here because it appeared to me that it is the best quality education I can get. There are all the industry contacts that the university has and the project collaborations, the fact that we have all the various disciplines represented here in courses and collaboration is very much in the DNA of every single course and all the disciplines are encouraged to cross over. That was a major draw for me and it felt like a great opportunity for me to learn and study and get to know the people from the get go. It was Abertay for me, absolutely.

Q732 **Chair:** Thank you. Tony, you work in Edinburgh. To what extent do you think the games companies in Edinburgh have a connection or common interest with the games companies in Dundee? Do people see it as a common cluster? Do you think games companies in Edinburgh see Dundee as a place to recruit from?

Tony Gowland: Scotland as a whole has a strong family kind of vibe around the development scene. I think Abertay was the first university in the UK to have a game-specific course. As Colin mentioned, that is why the area around here grew up really quickly and advanced quite quickly. As companies have spread out into the other central belt cities, and even further north where there are companies like Hunted Cow further up the country, everyone in the region in general works together, not necessarily just looking at recruiting from here but it is attractive to potential employees to come to the country because there are other companies here. You would not move to Dundee if there was only one company where you could get a job, but that there is a wide range of companies within an hour's travel from here does make it very attractive.

Q733 **Chair:** How important do you think the role of the university is to supporting the games industry in not just Dundee but in Scotland as well? Over the last day or so we have met people rather like you, Timea, who are graduates of this university and who have gone to work directly in the



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games industry. Do you think the relationship between the companies and the university is important?

Keeley Bunting: I would say that it is very important. For example, 25% of our staff at Outplay are right out of university and a lot of them are from Abertay. We work actively to mentor at Abertay and to make sure that we are available to offer speakers and do studio tours and work experience. We hire students as part-time staff and we also hire new grads.

Colin Anderson: I would echo that. I think the relationships between the universities and the companies in Dundee is incredibly important. It goes as far back as even before Abertay. DJCAD, the Duncan of Jordanstone College of Art & Design, was a big supplier of talent in the early days of the games industry. As far back as that, it has been absolutely critical to the development of the sector in this area. Latterly, since Abertay started and really pioneered the undergraduate degree for video games, that has been a huge bonus for the area that has snowballed over time.

To see the level of quality that has continued to come out of that course has been inspirational for me. I remember the first few years where there was a lot of scepticism. There were a lot of sceptics around when that started back in the late 1990s and to see it not only deliver but become a world class institution off the back of that reputation has been amazing. It has also helped to see the industry through some difficult times in Dundee. Periodically, you have disruption in the market and you see that various businesses will grow up and then scale back and new businesses will grow up from that. During those difficult transition periods, we have seen that the universities have acted as a cement for the industry in this area.

Timea Tabori: Having universities of such high quality in the country I think is amazing for companies, because it is not a one-way street. It is a fantastic thing to have a constant talent pool. The industry is very international and most companies would hire internationally and there is plenty of momentum moving across borders, but to have a well-known institution of high quality so close by also allows companies to feed back information. If there is a skill or a particular area that they feel is lacking, they can feed that right back into the universities and have a two-way dialogue where they can encourage students to fill some of those gaps or to pass on the information that maybe the universities were not aware of but it is important to industry. To have it so close by and be able to maintain this dialogue encourages the talent pool to fit exactly the requirements that are present in the industry. I think that is crucial to the success of the industry.

Q734 **Ian C. Lucas:** Picking up on exactly that point, clearly you have a very successful relationship with the university here. Do you directly input into the courses themselves? How does the relationship work? Are there committees working together or how does that work?



Colin Anderson: The short answer to that is yes. I have been involved in various course assessments, revising the actual coursework, looking at what is being done and making sure that fits with what the industry needs. That has happened several times over the years. One of the most successful courses to come out of Abertay in recent years is the MProf, which is a practically-focused course that focuses on the delivery of a practical project in teams. That was feedback that came directly from me and many others in the industry who were talking about the importance of the dynamic within teams and how important it is for students to have that experience during their education so that when they come into the industry they already have an understanding of the social dynamics and appropriate behaviours and so on that very often until that point was being left until people entered the industry before it was being offered. It is very much a two-way thing and all the universities around this area are constantly reaching out for as much input from industry as possible.

Q735 **Chair:** The video games industry in the UK as a whole seems to be performing very strongly. Some people have said that the production tax credit has been a big contributing factor to that. I would be interested to hear from your perspective whether you think that has been a big factor or whether there are other forces at play that have underpinned the success of the sector in recent years.

Colin Anderson: It is hard to overstate how important the production tax credits have been over the last four or five years that they have been in place. I forget when they came in. I have been involved in doing it as part of TIGA and lobbying for it. It feels like forever but I know it has been only a few years that it has been in actual operation. Already we have seen TIGA and UK both report the influence that that is having on the scale of the industry in the UK. My personal experience of that is that Earthbound Games is a company that was set up in 2017 here in Dundee and the production tax credit has been a key component in bringing investment into that business. I can tell you from the conversations that I have daily just how important that is in providing an appetite for investment in the sector.

Tony Gowland: My own company, Ant Workshop, is four years old now. It is a very small-scale company still but we have used the video games tax relief. We have had SEIS investment that has been really useful for us in the early days of getting started. We have received funding for one of our projects through the UK Games Fund and that has been really useful as well. I think that because there are a few different schemes and a few different ways that fledgling companies can find ways to maximise their ability to raise investment that is really useful for just keeping you going. A game could take six months to two years to come out, so to be able to have the income before you are generating revenue from one of your titles is super useful.

Keeley Bunting: I am a designer. I am not on the finance team but I am aware that we have made use of the video game tax relief in the past and



I have been told that that is very valuable and positive for the projects that we work on, particularly in developing a new game.

Q736 **Chair:** Overall, just looking at the future direction of the games industry, and you are all from different sorts of company that make different sorts of game, how important do you think the free-to-play model has become for the games sector, and in particular free-to-play games that you can play through mobile as well as from a PC?

Keeley Bunting: I think that the free-to-play model is particularly interesting to both consumers and companies. In general, it is associated with games as a service. As opposed to a game that you release and that is that, we are creating games that are able to be played for a long period of time with additional content and additional features being added over time. This allows us as a company to have a long-term relationship with our players and to be able to be agile and to respond to their interests. As a consumer, it allows you to try a game and decide if it is something that is of interest to you and whether or not you want to invest your time in it and in some cases whether or not you want to invest money. It is very valuable because people don't necessarily want to pay for something and then see whether or not they like it. They like to be able to try it first.

Colin Anderson: The free-to-play market has been hugely influential, particularly in the mobile space, and I remember prior to free-to-play becoming popular in the UK and US, it was quite a different operation. Most people think of mobile phone games starting with the iPhone in 2007 or 2008, but there was quite a substantial mobile phone market prior to that in the early 2000s and the consumer experience of that was less than stellar, I think it would be fair to say. It put all the risk essentially on to the customer in order to buy the game before they could even find out if they liked what they were going to play. Following up on Keeley's point, I know that as a game player I don't like that. I like to be able to try something at no risk, see what I like and then make a decision on whether to invest my time and money in that.

The free-to-play market has definitely made a big change in consumer behaviour but it has also bled into all sorts of areas in the commercial model of it as well. How you finance, design and monetise games have all been directly affected by that. We have seen it in the mobile space predominantly so far but, as some of you who visited Earthbound Games yesterday will have seen, I was suggesting that that is now starting to happen in PC as well, and I am sure console over time. Free-to-play is definitely where the market is trending towards.

Keeley Bunting: It might also be interesting to note that free-to-play games came as a response to issues regarding piracy. When it was first brought out in Asia it was because a lot of products that the games companies were creating were being stolen. By offering a service that you then have a server in the back and a client in the front, there is a communication and you are able to check that whoever is participating is



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supposed to be there and that what they are doing is what they are supposed to be doing.

Colin Anderson: That is absolutely right, not just from a piracy point of view but also from a player's point of view. There are all sorts of hacks and cheats that people will do in order to get benefits for themselves in games, which can be eradicated by having some sort of server side system and that lends itself towards the free-to-play model. There is a huge lot of consumer benefits as well as design benefits.

Q737 **Chair:** From a business point of view, do you think you make more money per player from a free-to-play model where players are purchasing in-game add-ons or cosmetic add-ons to their game experience than you do from just selling games to people?

Colin Anderson: I am not an expert on the figures. I am not an academic and I am not up to date on what the latest figures suggest, but anecdotally, yes, you can see that the top monetising games in the world right now are broadly free-to-play games. The reason for that is not hard to understand. There is no upper limit to what you can purchase, so you are essentially enabling people to spend what they like. You are taking the cap off, whereas on a premium title where there is a fixed price, one set price has been paid. There is then little or no additional revenue. We are starting to see hybrid models now where there is a premium purchase and some sort of in-game monetisation as well. I am sure there will be a lot of additional experimentation around that model over time, but there is definitely a trend towards higher monetisation in free-to-play models.

Keeley Bunting: When you have games as a service, a lot of it will depend on how long you have the player with you and the percentage of players that choose to monetise. For example, in the games that I work on we have less than 5% of our user base who choose to make purchases and even within them over the course of a month—and this is quite standard for the casual game genre—it may be less than \$1 on average for players, depending on how long somebody plays your game for. The game that I work on has been live for almost four years. Over the course of four years, that may result in a particular figure, but if someone comes in and plays it for a few weeks then they move on to something else.

Q738 **Chair:** Keeley, that figure you quoted of an average of \$1 a month of in-game purchases, is that all users, all players?

Keeley Bunting: Yes, it is.

Q739 **Chair:** If you were in the 5% category who play frequently, what do you think they would spend on average?

Keeley Bunting: I don't have the figure with me but I would be happy to request that for you.

Q740 **Chair:** We would be very grateful for that. Just off the top of your head, as a businesswoman, for the players that are heavily engaged in the



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game, what do you think would be a reasonable expectation of what they might spend a month?

Keeley Bunting: I don't think I can say. I am not in finance.

Q741 **Chair:** Colin, do you have a view on that? From a business point of view where you are making the investment in developing the game, you are looking to make your money down the line from in-game purchases, what do you think is a reasonable expectation of what the average amount of spend should be from a player who is playing the game frequently?

Colin Anderson: That is incredibly difficult to answer, and I am not trying to be evasive. It varies so much between titles. It is a bespoke number that you will get depending on what genre you are in, what your user base is, what your average demographic is, all sorts of things. Trying to pin it down to what a reasonable return rate is, you would be better looking at in a totally abstract way and saying, "As a commercial business, if your expense in order to create is this, what is a reasonable rate of return?" That is not something that we have, as an industry, legislated, for example, so it is something that varies enormously across the businesses. I know that many businesses struggle to get above the cost at which they are trying to produce whereas other businesses are far in excess of that.

If you look at some of the Fortnite numbers that are public at the moment you can see, going back to the number that you were asking Keeley for—and don't quote me on this because it is off the top of my head and I don't know if it is correct—I seem to recall that for all players it was somewhere around \$50 and for paying players it was somewhere around \$85. That gives you some indication and apologies to Fortnite if that is completely wrong.

Q742 **Chair:** Over what period of time?

Colin Anderson: I couldn't say.

Q743 **Chair:** Is that \$50 a year or \$50 a—

Colin Anderson: I couldn't say. It was quoted in an article that I read. I am not entirely sure what the time period was that they were using.

Chair: We will see if we can find that article.

Q744 **Brendan O'Hara:** Over the past couple of days we have heard how the industry in Dundee and further afield is buoyant and hugely successful, and we have seen an awful lot of evidence ourselves to support that. I would be interested to know what you consider the issues to be, particularly those outwith the control of the industry that could possibly threaten that success? Is the garden completely rosy, there are no clouds on the horizon that you can see?

Colin Anderson: I would say there are numerous things that could affect it. Over the last 10 years or so, for example, one of the things that we did see is highly competitive strategies on digital media being



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implemented by other countries. We know that the tax breaks that we now have in place within the UK were largely as a result of other territories offering incentives to bring the industry to them. I remember in particular that in the late 1990s or the early 2000s we had a substantial number of people leave our industry in the UK to go to Canada because there were numerous incentives for developers and publishers to set up there.

That is one example that we have to be constantly aware of. The UK is an incredibly successful country with its games industry but that is not something that it inherently deserves. It is something that is coveted by everywhere else in the world and is constantly being challenged. Periodically we come up against situations where somebody finds a really good way of usurping us and that is one example.

Tony Gowland: There are wider political issues that are ongoing at the moment. The companies that run storefronts are pretty much all dealing in dollars and anything that affects the currency conversion amounts can have a tremendous sway in value one way or another on your income. For our company, our current title is being published by a German company, so we have very close ties there. With tax situations, if things get tricky I could see that impacting our income as well. With recruiting, there is a lot of native talent, as you have heard from the people here, but plenty of people would come to the UK because they want to work in the UK games industry. Things that affect that freedom of movement are potentially throwing a spanner in the works for recruitment.

Q745 **Brendan O'Hara:** Currently, how easy is it to find the people with the skills that you need to develop your games or your business?

Tony Gowland: My company is very small. We are not really taking on full-time staff right now but we do use a lot of freelancers. The nature of the industry means it is quite easy to work with people remotely, so all of our staff work spread around the country. Companies of our kind of scale have not found it particularly difficult to find the people that we need to fill roles, but I am not sure if people have been hiring from larger companies.

Timea Tabori: Generally speaking, it will depend on your company, like Tony said. It depends on how people perceive your company, the size of your company, the projects that you are working on. One of the big issues that the industry is facing is a general question of diversity and a lot of factors come into that, including hiring from overseas, the talent pipeline coming through universities, moving laterally from other jobs into the tech industry and into games—there are plenty of transferable skills across technology and creative industries—wider diversity in recruitment and encouraging everyone to feel like this is an industry that is welcoming to them and they can express their opinions.

All of those are factors that are somewhat influenceable by the industry and I think the industry is trying to do things to tackle, but it is obviously



not an industry-only problem and it is a problem that is present in the wider society as well. It is somewhat outwith our control but it is not a simple question of saying, "Okay, this is one problem that we can solve with X or Y solutions," and there are so many factors in it, all the way from childhood and the talent pipeline to retention and everything. It is going to take collaboration both within and outwith the industry to solve it and it is something that I hope we are working towards.

Q746 Brendan O'Hara: Looking ahead, do all of you feel that enough has been done to develop people with the right skills who you will need in the future?

Colin Anderson: One of the challenges this industry has is that we are not entirely aware of the skills we need in order to be able to manufacture games effectively and efficiently. That is not a deficiency of any particular university or the industry or Government. It is literally a case of we are forging ahead in an entirely new medium here. Many of the skills that we have we now take for granted throughout many of the industries—coders, for example. There was a time when if you were a coder you either worked in a bank on a database or you were doing really low-level hardware tech or you worked in the games industry. There were not that many industries that utilising them.

Now, as some of the other panellists have touched on, tech or digital is touching every area of society. The increase in demand for those kinds of skills is rising, so that causes one issue, but on how you make creative teams work together in ways that do not result in unpleasant work environments for people—the production level, the commercial level, business models, all of the innovation around those areas—those are areas where there is still a lot of innovation required before we even know the kinds of skills that will be required in order to get that working for the future.

The good news is that Abertay has recently, as part of a conglomerate with St Andrews and Dundee, pitched successfully for the InGAME programme, which is going to be looking at those kinds of areas and championing research in those areas. That is a fantastic thing to see and I am particularly hopeful that we will see some progress in those areas over the next three to five years. It is not as simple as turning on a tap and saying, "We need more programmers, we need more artists." Yes, we do need programmers and Abertay has been very successful in helping fulfil that, and the same with artists and so on as well. When it comes to the business level and the operational level and all the infrastructure around that, there is still a lot of work to be done.

Q747 Brendan O'Hara: From what you are saying, you need to be pretty fleet of foot and be able to recruit the people you need as quickly as possible. How important is access to overseas talent for your businesses and, following on from that, what effect will Brexit have on your ability to recruit and on your ability to proceed as you would hope?



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Timea Tabori: I think it is very important to be able to recruit as diversely as possible and that very much includes overseas. We are a creative industry and a creative medium. Do not think it as simple as having good programmers and good artists and whatever. We are creating stories, we are very much playing a part in culture and creating and reflecting culture, so having different backgrounds and different perspectives brought into that is absolutely crucial to the success of the industry and the way we represent and feed into culture. Anything that has the effect of homogenising our talent pool is going to hurt that. I think it is very important to allow all avenues to be open and be able to hire as diversely as possible.

Keeley Bunting: To give a sense, currently the staff at Outplay is 71% people from the UK, approximately 22% staff from the EU and 7% elsewhere. I think that gives a sense of the fact that we do have people coming from all over and that that is of value to us.

Colin Anderson: Similarly, the overseas talent is incredibly important for the industry in general and particularly for Earthbound, and any barriers between us being able to bring people in quickly and effectively would be a hindrance to that. I echo the points that have already been made. We already have some disturbance around that at the moment and there is a lot of uncertainty. I am not sure we can comment on what difference it will make because we do not know what the terms of future relationships would be. Until we know that it would be hard to say, but I am guessing it would not be helpful.

Q748 **Brendan O'Hara:** Finally, are any of your companies doing any post-Brexit preparedness?

Colin Anderson: At the moment we have taken the basic precautions that we can. There are recommendations that have been put around by the trade industries that we have taken heed of. In being able to address the concerns of the staff we have, who want to know what their situation is going to be post-Brexit, no, we have not been able to do that, obviously, because we are waiting to find out what is going to be happening.

Tony Gowland: I had the same situation when I talked to my accountants about it. They said, "We cannot give you any advice because we do not know how the cards are going to fall on the table. As soon as there is a definitive thing of this is what is going to happen, we can give you advice and we can work on that. Until then it is all a little bit up in the air".

Q749 **Jo Stevens:** Can I pick up on that point you have just been talking about after Brendan's questions? At the moment there are proposals from the Government about a new immigration regime where the minimum annual income level would be £30,000 a year to be able to come into the UK to work. Tony, Keeley, Colin and Timea, would that cause you a problem in recruiting people?



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Tony Gowland: As I said, our company is not really looking at taking on full-time staff at the moment. We use freelancers right now.

Colin Anderson: Would that apply to people who are already in the UK and their ability to stay or is it purely to bring people into the UK?

Jo Stevens: It is not definite at the moment. On the assumption that it is people who are here currently as well as people who would want to come in in the future?

Colin Anderson: We have certainly had problems in the past with staff who are on lower salaries but performing what are integral parts of the operation. Generally it is people who are in the operational parts. It is the people who are running the office, running the infrastructure around game development. Those salaries can be below the thresholds that have been set and that can certainly cause issues.

It is one of those things where you really have to take it on a case-by-case basis. Of course it will cause some issues. What those issues will be is hard to predict, but some people will benefit from it and some people will not. It is a political decision that has to be taken and we have to run with whatever is decided. Obviously we would do that but, given a choice, we would like to be able to choose from the widest talent pool with the least friction possible, which is what we believe we have right now.

Tony Gowland: With us being sat in Abertay right now, I think graduate jobs are some of the lowest-paying so you would find potentially that it would make somewhere like Abertay less attractive to foreign students. If you leave the university and you cannot get a job in a Dundee company because you are not allowed to stay because you are not earning enough, I think that would really impact the attractiveness of a lot of the educational establishments in the country.

Keeley Bunting: Within a games studio you have a variety of different departments and a variety of people of different seniority, so there is going to be a wide range of salaries. There is also the fact that people who live in a city with a high cost of living are going to be paid more than people who are in a smaller city with a lower cost of living. That could have a potential to be more hurtful for studios that are in smaller cities with lower costs of living.

Timea Tabori: Also, the games industry is very dynamic and there are lots of new companies, Student Upstarts, all this sort of thing. To have that requirement universally applied I think would very much put a stress on any of these new upstarts and prevent innovation and have a negative impact across the board. With this uncertainty that we have been talking about, companies might decide that they will just hire from talent pools that they know that they can rely on. Even though they might realise that it is going to hurt their creativity in the long term and their business because of the same reason, the uncertainty makes it incredibly hard to navigate it, from both an employee and an employer point of view.



Q750 **Jo Stevens:** I want to move on to diversity. In the two days we have been here we have met fantastic people in companies, in the university here. I am not being rude but most of them are young white men with beards. This panel, our expert panel here today, looks very different but I am really struck by the very few women who are involved, from what I have seen so far in the industry. Why is that such a problem?

Timea Tabori: It is a big question. I think there are a lot of historical reasons behind it, just from where the games industry evolved from. In the 1980s and 1990s it was a fairly conscious marketing decision at the time to start targeting video games towards boys and young men. That had a profound impact on the types of game that were developed, the types of talent that were allowed at the table to make the decisions for the types of story that games tell. That had a whole knock-on impact on where the games industry is right now.

Historically, women have been fundamental in computer science and yet we now live in a time where women are massively under-represented in most computer science courses, most technology courses and jobs as well. I think it is something that the gaming industry is very aware of. It is a problem that exists in most industries in one way or another, definitely across creative industries. It is not a games industry-only problem but I do believe that the games industry is more aware maybe than some other industries, because of things that happened in the past.

Awareness is always the first step in correcting a problem so that is a good sign but there needs to be more that is done to close the gap and encourage more women to think of video games as a viable career, to choose it and then to stay in it and advance to senior positions. I think we are maybe making some progress in encouraging young women to be interested in STEM careers and joining the games industry, but there is still a big gap when it comes to senior levels and management levels between men and women. That is something that companies themselves need to look into more and investigate more how they can fix structural problems that might lead to that, but it is also something that can come outwith the games industry.

I think generally there needs to be a better understanding and appreciation of games as a cultural medium from the wider society, because at the moment I feel like there are still plenty of decision-makers and influencers in young people's lives in general who do not think of video games as a real job or something that is a viable career. Even if someone is passionate about it and would make a great game developer, they might drop out before that is even on the cards because their guidance teacher or parent did not fully understand the industry and therefore they were discouraged from pursuing that as a career. There is definitely a pipeline element to it on which the games industry, universities and the wider community have to collaborate in order to fix.

Then there is the other massive point of retention and training women to be able to advance in those careers and to want to stay in them. It is



massively multifaceted. It is something that I think a lot of people want to solve and currently lots of people are trying to bring some ideas to fix it. There is not currently a solution but I am hopeful that that is something we can work towards.

Q751 **Jo Stevens:** Keeley, what is your view?

Keeley Bunting: The reason it is a problem is because it is a cultural medium. You would not want all of your books, all of your music, all of your movies to be made by a homogenous group. Video games are really important as entertainment and as something that speaks to society and informs society. It is important that the authorship be inclusive of people from a variety of backgrounds. I think that a lot of the things that Timea mentioned are valid.

As far as education goes, it is really important that before students start selecting electives they are informed of all their career options, particularly non-traditional options. Not only would I like to see more women in technology; I would love to see more men in nursing. I think it is also important that when we look at how many women are in games, we do not just look at it as a whole but we also ask questions about what kinds of role, what level of seniority and who the vision-holders are. If you think about it as the film industry, if everybody was in catering that is not necessarily the same level of influence as the director.

Q752 **Jo Stevens:** Leading on from that, is the stark difference the same in other countries? Do you find that is similar in other countries and are there other industry sectors that have managed to make a change that you have seen, and that you might look at to learn lessons from or to improve the diversity levels, assuming that it is everybody's wish that you want to do that?

Timea Tabori: I think it is the same in most countries. I do not have the statistics and I cannot speak to every single country but it seems like a generally global statistic. I am personally not aware of any example cases where an industry managed to switch out of that one way or another. You have to take everything with a pinch of salt because the games industry is going to have its own unique problems, and hopefully unique solutions as well.

Colin Anderson: On Timea's point here about not being aware of an industry that has managed to change it, the only one that I can think of is an example of hiring musicians into an orchestra. I cannot remember which one it was. I think it was one of the US orchestras. Again, I am sure if you Google it you will find it. They had a very small number of female musicians in the orchestra and they were trying to address that and they went through a process whereby the selection criteria that you used were much more transparent. As a result of that I do believe they have managed to move in the right direction. I am not sure if it is wholly representative yet but I think everyone saw the benefit of it.



Q753 **Jo Stevens:** I was very struck by what you said earlier about practical teaching around collaboration, team-working, acceptable behaviours and that sort of thing. There is lots and lots of evidence that shows that more diverse teams make better decisions and produce better products. Is that something that you think could be used as part of this drive for more diversity so that you have that succession pipeline feeding through from universities into your companies?

Colin Anderson: I certainly think it would not hurt. One of the issues we have is that, particularly in certain niches within the industry, it can be a very highly pressured environment. In those circumstances, I think there are many people, not just women but I suspect many people, who look at the environment and think, "I do not want to be a part of that." There are other options that they would rather pursue. Personally, I would like to see us as an industry move towards a much more structured system, a much more well-understood process of making games that allow us to mitigate against these high work periods where we end up with projects slipping and all that sort of thing, which leads to difficult personal situations. You can end up with situations where people cannot take holidays, where flexible working is not allowed, and of course that can impact disproportionately on certain demographics of the community.

I think it is the kind of thing where it would be good if we could see more work being done around that area—the template for creating a games studio, what does that look like and do we have something that we can point to say, "We know this works. It may not be the best system in the world but we know this one works, so if you take that and run with it, you will not be too far off. Feel free to iterate it and improve it from there." If we could teach at least that, I think that would be a really good thing. When it comes to why we do not teach it, it is not because universities would not like to, I am sure. It is because as an industry I do not think we have really captured the essence of that ourselves yet.

Keeley Bunting: What I have found as I have navigated the industry is that I personally have, where possible, looked to work on products that I found interesting, either to me as a player or for audiences that I thought were important. I have also been very careful to look at the style of game that is being made. For example, one of the interesting advantages of games as a service, as opposed to a box product that has to be on a shelf on a particular date, is it is something that comes out every few weeks. I found in general there is a lot less likelihood of overtime and I have found that that is a place when you can have a much better work-life balance.

Q754 **Chair:** For the record, Colin, you mentioned some figures earlier about Fortnite. We found the article and the figures are as you described. The article does not state over what period of time.

Colin Anderson: I am glad I did not state one, then!

Q755 **Chair:** I want to ask a couple of follow-up questions on data. We have heard evidence during the course of the inquiry from people at



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universities like Abertay describing the growing interest of universities in analysing particularly the metadata of game play. Games companies collect a huge amount of metadata about their users. I would be interested to know whether your companies have had experience of working with universities or academics from universities on research projects to analyse behaviour of players interacting with different games.

Keeley Bunting: I am not aware of any.

Colin Anderson: We capture metrics for how our games are used, but it is not something that we have been working on directly with a university at this time.

Timea Tabori: I believe we also capture metrics, but it is not something that I am involved in or not something that I can comment on, unfortunately.

Tony Gowland: I did look into working with Glasgow Caledonian University. It has a game-player lab where it has player-testing sessions. The timings of what needed to line up for its costs working for its students versus when I needed that information for my commercial propose did not quite line up, so it never came around.

Q756 **Chair:** From your experiences, the analysis you do of data generated by game play is just used for your own study internally, in terms of understanding how you refine and improve the games. Is that a fair reflection?

Keeley Bunting: Yes.

Colin Anderson: Yes as well. Primarily, we use it as a signal to show where our game could be improved, where a player may be having difficulty or where we are not doing something right. It is really about targeting where design is weakest and where we can improve that.

Timea Tabori: Yes, I echo the same thing. Games are fundamentally iterative, creative products, so, yes, it is just to feed into that process.

Q757 **Chair:** For our benefit and for the benefit of the record, data analysis of gameplay would be used by a games company to look at, presumably, how long people play for, when and if they lose interest in a game, if there are purchasing decisions built into the game, when they are successful and when they are not successful and that sort of thing. Would that be fair?

Colin Anderson: Yes, that would be fair.

Keeley Bunting: Yes, that would be fair.

Q758 **Paul Farrelly:** One of the functions of the Select Committee is to make recommendations to Government. We touched earlier on finance and tax credits. Could we elaborate a little bit on that? We met Paul Durrant of the UK Games Fund yesterday. That scheme has a shelf life at the



moment only until the end of March next year and we are waiting for, Brexit permitting, the next spending round to see whether it will be extended or what else might perhaps come in its place that might be an improvement. Tony and Colin, could you briefly elaborate on what you said earlier on the benefits you found and other people in the industry have found from that fund, which has been going now for three years?

Tony Gowland: In our current project, we got UK Games Fund support for it last year, so the previous round. It was £25,000-worth of support, which does not sound like a huge amount of money, but for a company of our scale it was really, really useful in helping with our development costs and allowing us to make the best game that we could at the time.

Aside from the money, we have found that the UK Games Fund has built up a really fantastic support network. I think they have done five or six rounds now and they have done a couple of rounds of the Tranzfuser programme, which is aimed at student teams. They have been running a pitched development programme as well. All these companies are connected together and encouraged to meet up at UK Games Fund events. It puts on these events, gets in speakers for them and they are interesting and useful for knowledge sharing as well as the financial backing that you have. I think that is really useful for some of the companies.

As Colin mentioned, one of the things that the games industry struggles with still, as a relatively young industry, is how you make games and what is best practice—all these kinds of thing. To some degree, those things are regarded almost as company secrets and trade secrets that you should not be talking about so much. It is to have that support network of people where you can reach out to them and say, “It is not just about the money, but it is about what you think is the best way we can spend this money to give the greatest effect.”

Q759 **Paul Farrelly:** There is the catalyst effect?

Tony Gowland: Yes, absolutely, and once you have had that you are part of that ecosystem as well. Then you get other—it is a fantastic resource for the country.

Colin Anderson: I should probably declare an interest in that I have been a huge fan of what Paul Durrant has been doing with the UK Games Fund for some time, and previously the work that he and his team did as part of Dare to be Digital at Abertay University. I think the service that the UK Games Fund provides is pivotal in a number of ways. I can give you some examples. Tony has already covered several of them very well. From my own personal experience, I have seen the fund from a few different directions. Not the current business that I am in, but a previous business that I am involved with has had an award from the Games Fund, which helped the development of that project, which had already had substantial investment internally from the company but is a project that is about more than entertainment.



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When you are trying to work in a very market-led environment, it can be very challenging to find sources of income or sources of funding for something that is trying to push the barrier of what entertainment is. The UK Games Fund has been particularly good at identifying projects that are trying to do just a little bit more than you might traditionally see in the market, and supporting those. That was one thing I thought they did really well.

I have also seen it from the perspective of mentoring. I have been asked to mentor teams that have been involved in it. That has been beneficial. It has not just been beneficial for the team that is being mentored; I have learnt a whole load from that as well. As somebody who has been in the industry for a while, having access to a new team that is learning all this for the first time, hearing the questions they ask, the perspectives they have—that becomes a really virtuous cycle as well. Those teams, as Tony alluded to, become part of your network. They now have an “in” to me; I can refer them to people in my network and so on. That effect has been incredibly powerful.

Q760 Paul Farrelly: It will no doubt be doing its own impact studies as part of the pitch to try to get the fund renewed or improved. Do you think there is a tangible benefit to the taxpayer in the gap it fills, the continuity it provides for people in the industry—that there is a payback to the taxpayer?

Colin Anderson: Again, I do not have data on that so I do not want to be making some sort of data-backed claim, but anecdotally, based on my own experience of it as both a game maker and a taxpayer, yes. In my position, understanding where the challenges are within the game development process and the wider commercial implications of that and then seeing the targeted impact that the UK Games Fund team has had, and understanding the implication of it, I could hand on heart say that is a very effective use of money, as a taxpayer.

Q761 Paul Farrelly: I want to go on to the tax credit scheme. There was a hiatus from when it was conceived by Gordon Brown as the Prime Minister, the Dundee tax credit, as it was known. Then, after George Osborne put it on hold and then introduced it, during which, from previous inquiries, we understand quite a lot of people went to Canada in particular, which was pitching—

Colin Anderson: We do have them back now.

Paul Farrelly: You do have them back now? To open it up to the panel, from your experience how important is the video games tax relief to the industry? Also, how could it be improved so it is better taken up and by a wider range of companies?

Tony Gowland: The financial year 2018 was the first year that we have applied for video games tax credit. I think the process is pretty straightforward now. I know that the team involved there seems to have done quite a lot of work in getting out there, and there have been almost



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monthly events around the country at different development hubs, encouraging people to get involved with this.

It is one of those things where having the tax credit means that you can look at the finance of a particular title and say, "Okay, when we are working out the budget of this, we can spend X amount because we know that we are going to get some of that back." All that money is essentially getting spent on wages and is keeping people in employment. Then that money is coming back and it enables you to fill in—I think it was alluded to by one of the panellists earlier. You make a game, often, and then you have these few months of down period while you are waiting for revenue to come in.

It is the same in pretty much any business. You do not get the money as soon as the player buys something. That money goes into someone else's pocket and then two months down the line you invoice them. Having that tax credit and knowing that that tax credit is money that is going to be coming to you at a certain point when you put in your corporate tax return is incredibly useful for being able to bridge that gap and being able to keep a business running as a continuous entity.

Colin Anderson: I think I have probably covered it mostly in what I said before. The tax credit when it came to funding of Earthbound Games, which we are doing just now, is obviously a big incentive for investors to put cash in because it does derisk for them the potential exposure that they have. It is definitely a reasonable chunk. It is an amount that really does make a difference and changes people's appetite for investment. The cash flow benefits, as Tony has covered, are important too.

In terms of making it better, I think that HMRC and the trade organisations did a really good job with the environment that they were working in at the time. I know there was a lot of concern about the cultural component to the tax breaks, but having been involved in that process and understanding all the various aspects they were trying to balance, I think they did a really good job with it. I am not sure how much easier it could be made under the current legislative restrictions.

What Tony alluded to is the BFI have been really active in going out there and promoting this and encouraging everybody who possibly can to apply. I have been present at meetings where they have been doing that and it is great to see. I think it is a shining example of how this sort of thing should be implemented.

Q762 **Paul Farrelly:** We were talking with Paul yesterday about the possible benefits of a repayable grant scheme as well to fill other gaps. Let me move on so it is not just men only. I have two final questions, one to Keeley. Canada was the big competitor when we last looked, before the tax credit was put in place. Does Canada do anything that we don't do that we can learn from?



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Keeley Bunting: It is interesting. Speaking about the tax credits, I believe in Canada they are handled at a provincial level. What I observed was an interesting effect, which was that one province would increase the tax credit and the companies would move there and then another province would do so and the companies would move there. In many cases it was the same staff having to move all over the country. I have lived in a variety of provinces and have enjoyed it very much, but it is an important thing to consider how these things are applied.

I find it quite interesting because what goes on in the games industry here is quite similar. It is quite transferrable and that is one thing to keep in mind. Timea alluded to this earlier, which is that we are working on things that are digital. These are not tied to physical resources and all of these companies are quite mobile. When looking at things like tax credits and regulation it is important to be thoughtful about the implications they will have locally.

Q763 **Paul Farrelly:** It is interesting about the importance of a level playing field within the United Kingdom. Destabilising competition between jurisdictions would not necessarily be a good thing.

Keeley Bunting: Assuming you had that.

Q764 **Paul Farrelly:** A final question, Timea. Before you came here you presumably looked all around Europe as to where to go. Are there any interesting lessons from different countries, possibly in eastern Europe or elsewhere, that we could learn about the games industry that you are aware of?

Timea Tabori: I was very young when I made this decision so I was not necessarily thinking about tax credits and implications.

Paul Farrelly: Things that people do in the industry?

Timea Tabori: Yes. There were a lot of factors that narrowed my search, one of which was that my strongest foreign language was English. It is obviously a big pulling factor here that a lot of people learn English as their second main language. Especially at the time, to me it seemed that the UK had the most vibrant and welcoming games community and games industry out of the options that I considered, and I was mostly just focused on Europe rather than going overseas.

A big factor was the community that comes up over and over in people's answers and the fact that it is such a tight-knit community and that people know each other and there is a lot of that peer-to-peer support and helping each other learn and grow and find your footing. I am not sure if I can speak to—I did not necessarily research other—

Paul Farrelly: Just in case anything occurred to you.

Q765 **Ian C. Lucas:** Is there a downside to the pay-to-play model as far as any of you are concerned?



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Colin Anderson: There can be, yes.

Ian C. Lucas: What would that be?

Colin Anderson: There is the potential for incentivising player behaviours in ways that would be considered unhealthy. We have seen some reporting on that recently with the loot-boxing phenomenon. That is something you have undoubtedly heard about. That is an example of something that can happen if there is not clear guidance or expectation as to what is acceptable and what is not.

Q766 **Ian C. Lucas:** How do you devise a policy within your business of what is acceptable as far as that is concerned?

Colin Anderson: Personally, I have tried to take an ethical and moral approach to business wherever I possibly can throughout my career, and that would be no different in that situation. I go by the golden rule that I would not want somebody to monetise me in that way in a game and likewise I would not expect to do that to someone else. But I understand not everybody feels like that.

Q767 **Ian C. Lucas:** Tony, you set up your own business in 2015, is that right?

Tony Gowland: That is right, yes.

Q768 **Ian C. Lucas:** You previously had worked for Rockstar and you worked for other businesses. Was that the first time you had run your own business?

Tony Gowland: I had been self-employed for a couple of years previous to that.

Q769 **Ian C. Lucas:** I want to talk a bit about money. I ran my own business at one point, which was completely different from the type of business you are running. We have talked a little bit about income and the figures that you have mentioned seem incredibly low to me in terms of income. I do not think anybody has talked about anything over \$100 or £100 at any stage. When you are running your own business, how do you make money? Do you use the free-to-use model?

Tony Gowland: No. In Ant Workshop, my company, we do premium products, but that was—

Ian C. Lucas: That is you pay up front?

Tony Gowland: Yes. That is essentially someone pays an amount of money and then they get a game and that is that, but it was very much for me a consideration of scale and what I could do. As I said, the company was set up with just me so it had to be what can I do and what—

Q770 **Ian C. Lucas:** Do you have a product on the market at the moment, a game?



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Tony Gowland: Yes, we have a few different things that we have released.

Q771 **Ian C. Lucas:** Can you give me an idea of how much a game would cost, any one of your games?

Tony Gowland: Typically for our things you would be looking at somewhere around £10.

Q772 **Ian C. Lucas:** £10? You want to sell a lot of games in that case, don't you?

Tony Gowland: Yes, that would be nice.

Q773 **Ian C. Lucas:** And you want to sell them worldwide, presumably?

Tony Gowland: Yes.

Q774 **Ian C. Lucas:** Are they all sold online?

Tony Gowland: That is right.

Q775 **Ian C. Lucas:** What are the best markets for games—which countries in the world, for your games?

Tony Gowland: We have found that the majority of our stuff sells in Europe and in North America. We also sell in the Australian markets, but they have not done so well for us. A lot of these things go through the storefronts. For example, there are a number of digital storefronts, like PlayStation, the Xbox; PC Steam is the main one. Largely, you are selling through to them to whichever markets they support.

Q776 **Ian C. Lucas:** How many editions or how many of your most successful games have you sold? In other words, what is the most successful and what sort of number are we talking about for you, roughly?

Tony Gowland: The most successful thing that we have released we have sold somewhere around 40,000 or 50,000 copies.

Q777 **Ian C. Lucas:** I am working out my maths. It is scale that is really important?

Tony Gowland: Yes. What is important for us as a company has been scale of portfolio. If you are only making one game every five years or something like that—a company like Rockstar, where they are releasing one game every five years or something like that—you need to sell a lot of copies of that one game. But because we are spending less time making an individual title, and in particular we have been helping other people to release their titles as well, building out that broader catalogue of releases has been particularly useful for us.

Q778 **Ian C. Lucas:** Do you do any free-to-play games?



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Tony Gowland: We do have one free game that you can download that is entirely advertisement supported, so there is no in-app purchases in that whatsoever.

Q779 **Ian C. Lucas:** You cannot buy any additional aspects?

Tony Gowland: No.

Q780 **Ian C. Lucas:** What is the business motivation for you for that?

Tony Gowland: It was very much a novelty title and it took us one month to develop. The idea was if we can get enough people to download this Scottish-themed novelty title, potentially we can make enough advertisement revenue off it that it would support itself.

Q781 **Ian C. Lucas:** How would you get any revenue from it?

Tony Gowland: Like I said, the revenue that we get is through advertising on it. At certain points in the game it will pop up an advertisement. If the player downloads the title that that is linked to, we get a cut of that advertising.

Q782 **Ian C. Lucas:** Keeley, I have a blog in front of me from Outplay, which is called "An introduction to mobile monetisation". It is headed, the first line in it, "AKA, how to make money in a crazily competitive business". Do you know the blog and have you read it?

Keeley Bunting: No, I have not read that one.

Ian C. Lucas: It is about how to monetise the product. We come across this in areas like music as well, where is a challenge for artists to monetise their product. Colin has mentioned the issues relating to ethics. One of the lines in it talks about designing fun and endless compulsion loops. It says that is a key element of any successful mobile free-to-play game. In that context, what does the compulsion mean? You design. Do you take into account compulsion when you design part of the game?

Keeley Bunting: As a designer, my main focus is on creating a fun and engaging experience. I think about motivation and I think about what our players would enjoy.

Q783 **Ian C. Lucas:** You do not think about compulsion? This is the blog's word not my word. It is on your company's blog.

Keeley Bunting: I can only speak to Crafty Candy, which is the game that I am the lead designer for. We have in that game a variety of levels where you play a match-three puzzle game. It is similar to playing Sudoku or a crossword or something of that size. You go in and you have five lives, so you have five tries and if you succeed you are able to go on to the next level. If you look at that, it does create a loop. You have a level that you complete and if you do so successfully you are able to move on to the next one. You will find in game design those loops are frequently referred to.



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Q784 **Ian C. Lucas:** Are there people within your business who focus on monetisation of the product?

Keeley Bunting: We do not have anyone who exclusively looks at monetisation.

Q785 **Ian C. Lucas:** This is a successful business and it makes money and it provides jobs. We have seen that and it is hugely impressive to see the way Dundee has benefited because of this, but it does depend on making money. What we want to try to get to is talking about money with games companies, because you do not seem to want to talk about it—not just today but in general terms. It is a worldwide business and there is a lot of money being made, but we are finding it very difficult to get to the bottom of the amount of money that is being made and how it is made. We would really like the businesses to be more open in the way that they make money. Do you recognise that at all? Does that sound fair to you?

Colin Anderson: I would certainly recognise that, yes. I think it is quite a challenge for a lot of games businesses to talk about it. To be clear, I am talking personally here; I am not talking Earthbound. I am using my experience, which I have developed over a long period of time in the industry. I certainly recognise it. I think one of the biggest challenges is that there are a lot of games companies who are not making money. In those circumstances, it can be incredibly challenging to speak about the amount of money that you are making, because it throws up all sorts of additional questions such as what the sustainability of this business is and so on.

That can be a real challenge, particularly for smaller businesses as well, because we work in a hit-driven industry. As with any hit-driven industry where you have this skewing towards the most successful products where you look at the high-level figures of how much this industry is making and you think it is making billions of pounds, you say that must mean the average company is making this much money, and it is absolutely not true. The top five or 10 products are making by far the lion's share of that and the rest of it is distributed piecemeal among what remains.

Part of the issue you are facing—I do not know who you have spoken to—is that maybe the people you are speaking to are people who have not had the experience in those areas and you need to look at the top 10 and go and speak to those people. They are the people who will be able to give you the kind of answers that you are seeking. Is that reasonable?

Ian C. Lucas: That is helpful, yes.

Timea Tabori: This may be controversial but I think there is an aspect to the games industry where a lot of people do not get into it for money. There is a sort of, "We are doing it for the art or we are doing it for the greater whatever." There is a lot of that mentality. Those loops that were discussed earlier, there is this omnipresent concept in game development and the wider psychological flow, which is something that most games designers are hoping to achieve, which is to keep you in this perfect state



of always just challenging you but not too much so that you feel out of your depth. That psychological state is something that is very relevant for video games.

The concept behind it is play. Play is at the core of video games and play is also the core of human learning, so there is a lot of interesting states that maybe are not fully explored and understood, where games are impactful because of the player agency and because of this state of highly switched-on mental state. Equally, that same flow state can be present and utilised or exploited within the creative community as well, where a lot of people will want to create for the sake of creation and they are not necessarily focused on the money. They are not necessarily wanting to talk about the money because a lot of skills, as we decided earlier, are very transferable and people could move into other technical industries and make more money, but there is something about the games industry that keeps them here, which is not all about the money.

I do not necessarily have an answer, but there is something there in the games industry. I sometimes hate this word but it is a very passionate industry, it is a very passion-driven community. That can serve it and hurt it in a lot of different ways, but I think maybe there is not such an easy route for you to get to your answer because that is maybe not a lot of people's top priority, or it is not their motivation, and therefore it gets muddled up on the way because there are lots of elements feeding into the wellbeing of developers and the reason we create.

Tony Gowland: To go from what Timea said there, the reason why pretty much all the people I know in games got into games is because they love games and they want to make something that people really enjoy playing. When you are talking about compulsion, yes, I want my games to be compelling. I want people to play my game and finish a level and want to play the next level, in the same way that an author would write a book and want people to finish a chapter and think, "I am not going to go to bed now; I am going to read the next chapter," or the way that millions of people waited for the next "Avengers" film or the next episode of "Game of Thrones" or would sit up and watch a whole boxset of their new favourite TV show dropping on Netflix. It is a creative thing. You want people to love what you are making and I do not think there is anything inherently dirty or wrong about that. It is an artistic drive.

Q786 **Ian C. Lucas:** Thank you. Can I ask you, Timea, one more question about coming to Scotland? When you first came to Scotland you made the choice to come to Abertay, which seems to have worked very well for you and many other people we have met. Did the cost of the degree make any difference to you coming to Scotland?

Timea Tabori: It did in the sense that the wonderful Scottish Government paid for my education because I am an EU citizen.

Ian C. Lucas: You could have gone to England or Wales, but it would have cost a lot more, wouldn't it?



Timea Tabori: Yes, that is true.

Q787 **Chair:** One follow-up question from me. Keeley, I wanted to ask about Crafty Candy. This is a question we have asked other games companies as well. I know there is a Facebook log-in feature to play in the game. What sort of data-sharing arrangement do you have with Facebook? Is some data about game play shared with Facebook as part of the log-in feature?

Keeley Bunting: I do not know what information is shared with Facebook, I am sorry.

Q788 **Chair:** Would it be possible for us to follow up in writing on that? We would like to confirm, as part of the log-in arrangement, what data is shared between the companies and also what information is shared with the user about the fact this will take place.

Keeley Bunting: Yes, I can request that information.

Q789 **Clive Efford:** Are the games that you create capable of causing harm?

Colin Anderson: That is a really difficult question for me to answer. The reason for that is because I can imagine situations where you can take anything to extreme and cause harm with something. I can imagine how you can take that glass of water and cause harm with it. I understand what you are getting at. In the context of what you are saying, no, I do not believe that is the case.

Q790 **Clive Efford:** Anybody else?

Timea Tabori: I agree with Colin that you can take anything and you can make it harmful. I strongly believe that games are an interactive medium because of the way that we engage with them and they are a lot more active than TV or movies or whatever that are a bit more passive. They are colloquially referred to as lean-back entertainment because you are not engaged, whereas games are lean-forward entertainment because you are fully engaged. Therefore, I do think that they can have a real impact on the way we perceive the world and the way we interact with the world.

Q791 **Clive Efford:** Are people capable of becoming addicted to playing the games?

Timea Tabori: People are capable of being addicted to anything. There is a pattern of the games industry being brought back to this question of whether games have all these various negative psychological impacts, and a lot of them have been scientifically disproven in the past. The games industry absolutely has a responsibility in that, but I do not think it is the sole party to look at.

I will come back to a point that I alluded to earlier, which was a wider understanding and appreciation of games as a medium as a whole by the wider community. A lot of games are still viewed as children's toys, even



though a lot of video games are rated 18-plus. If you go into a physical game shop, as much as they are on the decline, you will see adults, parents, purchasing 18-plus rated games for their 12 year-old kids. I have seen it happen.

I know lots of people who buy these games for their kids and they do not respect the medium enough to see it as a text worth studying and going through with their kids. If you decide that that is something appropriate for your underage kids, fair game—it is your choice—but I feel like you should give it the respect of studying it together and talking about how it reflects culture and how it impacts their psyche. Have a wider discussion the same way you would about a film or a book. Games are still stuck as this level of being seen as toys, and they are not. They are so much more than that.

There is a lot of parental responsibility in understanding this, understanding its impact and talking with your kids about the media they consume. If you do not recognise it as something that can have a powerful impact on you or the way you see the world, then you are surprised when it changes the way you see the world or the way you interact with the world.

I feel like there is a disconnect. You cannot act surprised if you did not give it the respect. At least you are going to have to go back and re-evaluate how you see it as a cultural product. That is, for me personally, the biggest disconnect. People do not take it seriously enough to look into how they consume it and how it affects their relationship with the real world. Just as any art form or any cultural output, games very much take the real world and refract it like a distorted mirror, in a way—sometimes satirising it, sometimes being realistic and sometimes totally outlandish—and then it feeds right back into culture. I do not think that is recognised by a lot of people.

It also comes back to what would be the downside of the games industry not diversifying or not achieving some of these goals. It is not only that we will have more boring games, less revenue or whatever. It is that there is this cultural vein connecting them right back to culture and society. Games is such an active, engaging and player/agent-driven medium.

I wish there was more respect for it in that way because the games industry is very good at self-regulating and evolving practices. I do not think the games industry is fundamentally trying to make kids addicted or anything like that. I feel like the other side of society has to step up.

Q792 Clive Efford: As somebody who has to legislate when there are harms, how do I satisfy myself that the industry is doing all it can to protect those vulnerable people who may be prone to overplaying or being unduly influenced by things that they experience in the games? How do I protect against that?



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Timea Tabori: For one, we have rating boards and ratings that are globally enforced and accepted. There are multiple rating bodies. They are there; they are just openly ignored by the consumer. At some point, there has to be responsibility on both sides. If the games are going through certification and they are rated a certain—

Q793 **Clive Efford:** What about controlling the length of play, the length of time that somebody would play a game? Do you ever introduce anything into your games that—

Timea Tabori: I know plenty of games that do. I cannot necessarily speak to every game or whatever but lots of platforms do. Especially Nintendo, I think; they are pretty good at that.

Q794 **Clive Efford:** Do you all do it? Do you have programmes that remind people how long they have been playing?

Keeley Bunting: For example, Crafty Candy is a mobile game and we offer it on different operating systems from Apple and on Android. At the moment Apple has their screen time controls. You are able to see where you have spent your time, on which games, and you can actually set limits within that. I believe Android also have digital wellbeing controls available on their platform.

Q795 **Clive Efford:** Do you use the data that you collect in any way to identify people or patterns of play, maybe when people are playing too long or other forms of harm that may result? Do you use the data in that way?

Keeley Bunting: I am not aware of us doing that.

Q796 **Clive Efford:** Theoretically, is that possible? You do collect a lot of data as people play. For instance, if you had an age limit could you identify from the pattern of play that this is a child that is playing, not an adult? Is that not possible?

Tony Gowland: I am not a data scientist, but I do not know how you would accurately say—

Q797 **Clive Efford:** How do you enforce the minimum age requirement then, apart from parental controls? What else can be done?

Timea Tabori: It is on the box. I do not know how much simpler we can make it, honestly. It is on our box the way it would be on a movie. Then it is consumer responsibility, in my opinion.

Q798 **Clive Efford:** Can I go back and ask about these compulsion loops that were referred to? I think it was your company's article. How do you set about to create a compulsion loop? What goes into it?

Keeley Bunting: A core loop is frequently something along the lines of, "Do something, get something, invest in something." That is seen in a lot of games. In my day-to-day, I am more frequently designing features and looking at content. The core loop is something that is usually set early on in a game.



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Q799 Clive Efford: The word “compulsion” suggests that we are trying to encourage people to do something that they might not otherwise do. Is that the aim? Is that what a compulsion loop is, to get people to engage and spend extra money on additions within the game?

Colin Anderson: I think it would be worth taking a step back at this point because one of the issues we have at a commercial level within digital media as a whole is that the business model for it essentially incentivises businesses to capture the maximum amount of attention in people. That is not just games; it is Facebook, Twitter, YouTube, Google, everyone.

When you move into a digital world and you have limitless distribution and so on, the limited resource that remains is attention. If there is a direct relationship between the amount of time that people spend in an application, be that a game or something else, and the rate at which they will monetise, then you do not have to be Adam Smith to figure out that that is going to incentivise behaviour within companies to create products that do that sort of thing.

What I would suggest is that a role that Government and legislators may be able to take is to provide mitigation for that. For example, I have looked quite extensively at the history of the broadcast industry. If you look at the history of the broadcast industry, they had similar challenges to what we now see within the digital industry. The UK, almost 100 years ago, took the decision to set up the BBC as a model through which they could focus attention on the quality and public service of the utility that was being built, in a way that prevented the run-ahead into what essentially happened in the American market, where advertising and attention-grabbing became the predominant method of monetisation. We have quite a good example in our cultural history within the UK of how this issue has occurred in the past in other media, how it has been addressed and what the implications of that are.

Q800 Clive Efford: You provide free access to games online. Can I take the question about enforcing age limits? How do you do that? Timea said that the age is on the box but it is a different situation when you are online. How do you enforce it online?

Colin Anderson: It is handled by the store that you sell through. The digital stores that you sell through are responsible for the user. We do not have that information.

Q801 Clive Efford: What sort of checks are there at that stage?

Colin Anderson: I would not be able to comment. You would have to speak to somebody who runs the platform for that.

Q802 Clive Efford: We have been having a debate as to whether the gaming industry is art. For instance, film is quite often given funding through arts and cultural funding, say from the lottery. Should games be treated the same as films in that regard? Why?



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Tony Gowland: Yes, they should because they are an art form. Not in Scotland but in England there is Creative England, which offers loans, I think, and has various different pots of funding for games among other art forms. In Scotland, Creative Scotland does not have that same kind of thing. The games industry is absolutely an up-and-coming creative industry. In the almost 20 years I have been in the gaming industry I have not heard a compelling argument for why games are not art, to be honest.

Q803 **Clive Efford:** Are you saying that there is a creative industry out there in the games industry that just creates games for the sake of games, for the sake of the art, and not to make money?

Tony Gowland: Yes, there are absolutely people who do that.

Q804 **Clive Efford:** If that is going to continue, does that require some sort of funding? The lottery is not really a source of funding for start-up businesses, for example. Generally it is used to support arts and cultural things that might not otherwise take place because that funding is not available. You are saying that that is true of gaming as well? How would we be sure that we are not using arts and cultural funding for something that should be covered by a business grant or an education grant of some sort?

Tony Gowland: I am not sure exactly how you ensure that kind of thing, but what I will say, to go back to the earlier point about diversity and that kind of thing, is that there is a huge number of game-makers in the UK who have massively under-represented voices. Part of the reason for this is because the types of experience and the types of game that they want to make and that speak to their lives are not the sort of thing that you can put an in-app purchase in. They are not like Fortnite, where you could have a character who does a funny dance and you could sell that to people. These things are not commercially viable and people would have to be in a very privileged position to be able to spend their own time and effort making something, knowing that they were not ever going to get any kind of recompense for that.

Chair: Thank you. Just to be clear for the record, when Clive said, "We are having a debate about whether games are art," I think just Clive is having a debate.

Q805 **Paul Farrelly:** I just have one point to make. Video games must be art as well as design, otherwise they would not be in the V&A in London and Dundee, Clive.

We had a great session yesterday—we have seen so many companies—with Chris van der Kuyl of 4J Studios about ethics in the industry. It was a completely different tone from the questioning session we had with Jagex, in particular when we cited the instance of a young man who was not only addicted to the game but got into debt because of the thousands and thousands of pounds that he had spent. During that session, we learned that the company had a limit, which seemed quite a high limit, on



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spending. It is £5,000 a month, I think. They admitted that was mainly due to fraud considerations and not wellbeing.

"Amoral" or "immoral" is a word you could probably apply, from our investigations, to how Facebook maximises its profit. Probably not to the people in this industry, but one thing that did come out of the session was that there was an indifference. Maybe that is not the right word, but the attitude was, "This is not our problem, it is society's problem," which was kind of shocking, really. We will be looking at addiction, the need for more research into addiction and what role the industry can play without stifling the industry or covering it with red tape. What are the externalities of gaming, as economists might call them?

I just wondered whether the panel thought that—being proportionate and not wanting to wrap a creative, vibrant industry up in red tape—there is a role for legislators and Government, not just putting down legislation but encouraging an industry to adopt best practice, voluntary codes and self-regulation. Is there is a possible role for Government in that respect? I will just go along the panel, if I may.

Colin Anderson: Of course there is exactly that. One of the things that I am very aware of and have discussed many times before is that first and foremost we, as a society, need to understand what we expect our digital interactive media to deliver, what that environment is that we are trying to create.

If we are left in a completely commercial environment where you can see a race to the bottom in all sorts of ways, where content becomes more shocking in order to get more attention and draw eyeballs towards it, you retain players as long as you possibly can and so on. All these things are definitely things that as a society we should be discussing and, as legislators, we should be taking a view towards at least indicating best practice and setting some sense of what is reasonable and proportionate.

Our trade bodies are doing those sorts of thing as well and many people within our industry are already saying that, including myself. There is that aspect to it. However, I think it would be useful as a nation to have that kind of debate at that level, to say, "What is it that we expect?"

It is most important here that we do not single games out as some special case. I always think that the temptation is to put games into their own silo as something special, but I do not see it that way at all. When I look at the games industry, what I see is that it is part of a spectrum of media that has all sorts of things. It covers arts, humanities, entertainment, politics, research; all sorts of areas. What we are seeing in the games industry is digital media touching that industry and disrupting it.

What we are not seeing yet is the full picture because we are only beginning to see that happening now in other areas such as social media, communications and arts and humanities. There is a huge disparity between the amount of investment that has gone into the area of



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entertainment, because it is market-driven and market-led, and there is an audience for it, compared to all those other areas. That is the area where I think at a governmental level we can really affect the conversation to say, "Yes, clearly the market is working, more or less, in this area. How can we take these other areas and bring them up to that level, rather than trying to squeeze things down?"

As I said before, we have precedents in our history because the obvious parallel is with broadcast. When you look at broadcasting and the disruption that caused at the time that it came in, obviously the ability to communicate suddenly across an entire population had huge ramifications for politics, education, entertainment and so on. I really think we should be looking at that for guidance for what we are doing next, as our next step.

Q806 **Paul Farrelly:** Keeley?

Keeley Bunting: I do not have anything further to add.

Q807 **Paul Farrelly:** Tony, you must have something further to add.

Tony Gowland: I am not a psychologist and I could not say for sure if games are addictive or not. I do not know. That is not in my wheelhouse to say. I know that there is certainly research that sits in both camps on that. Obviously, you as a Committee have talked to games companies that are making a lot of money off of games and people playing games a long time. On the other hand, there are people who are making money from selling games rehab classes and that kind of thing. There are a lot of people with a lot of stakes involved in this.

From my point of view, it would be really good if the Government's initial steps into this were to fund research on it and get involved. Let us look at some more answers. As I think has been brought up before, if games companies are funding the research then one camp will always say, "Well, they have funded that research," and vice versa. Let us have someone who is fully independent to do a full look into it.

Q808 **Paul Farrelly:** We are taking evidence on that. Timea, finally?

Timea Tabori: I agree, research would be very important, just generally incentivising companies to gather information and then share it or in some way continue the dialogue more publicly among game studios as well, not just internally.

Something that has had a pretty positive effect is the gender pay gap reporting requirement. I think that helped a lot of games companies to face the reality of their numbers. Even if before they would anecdotally believe that there is an issue and they would pay lip service that it is something that they are working on, I think actually seeing the numbers was a wake-up call for a lot of companies to go, "Okay, hang on, this is more than just a conceptual problem somewhere in the back of our heads. This is something that we can actually do something about. Let us



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sit down and think about what that is.” These little nudges to drive out the information and then inspire companies to action are a really good example of what Government can do.

Chair: Thank you very much. That concludes the questions from the Committee this morning. We are very grateful for your evidence.

Just as a comment on Colin’s answer there towards the end, I think we all absolutely agree that these are issues that affect a broad range of different sorts of digital media. Although we have focused on games today, we have other sessions coming up with the social media companies and other technology companies as well, because these issues, the gathering of data and the battle for eyeballs, are something that affect the whole of digital media and something we are very interested in. Thank you very much.