



Communications and Digital Committee

Corrected oral evidence: Scaling up: AI and creative tech

Tuesday 26 November 2024

2.35 pm

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Members present: Baroness Stowell of Beeston (The Chair); Lord Dunlop; Lord Hall of Birkenhead; Baroness Healy of Primrose Hill; Lord Kamall; Lord Knight of Weymouth; The Lord Bishop of Leeds; Baroness Wheatcroft.

Evidence Session No. 4

Heard in Public

Questions 52 - 61

Witnesses

I: Victor Riparbelli, Co-founder and Chief Executive Officer, Synthesia; Peadar Coyle, Co-founder, AudioStack; Simon Barratt, Co-founder and Chief Executive Officer, Cooperative Innovations.

USE OF THE TRANSCRIPT

This is a corrected transcript of evidence taken in public and webcast on www.parliamentlive.tv.

Examination of Witnesses

Victor Riparbelli, Peadar Coyle and Simon Barratt.

Q52 The Chair: This is the Communications and Digital Select Committee, and we are continuing our inquiry into scaling up in the worlds of AI and creative tech businesses. Last week, we focused on AI-first businesses scaling up. This week, we are concentrating on creative tech businesses. I am conscious that there is not quite the stark dividing line between these two categories of businesses as perhaps some of the less initiated may think, just by the way in which I said that. I know that AI is very much a feature of the work that you do.

In our first panel, we are pleased to have before us CEOs and founders of these kinds of businesses. Could I perhaps start by asking you to introduce yourselves? Then I will summarise what we are going to cover.

Victor Riparbelli: Thanks for inviting me. I am one of the co-founders and CEO of Synthesia. We are the world's largest AI video platform for businesses. We help more than 100,000 customers all over the world to create video content with AI. To give you a sense of the scale of the business, we have around 450 employees, are valued at \$2.1 billion and have been around for eight years.

Peadar Coyle: I am one of the co-founders of AudioStack and we are an AI audio platform. We have about 40 people, about four offices and serve, largely, the media and entertainment sectors.

Simon Barratt: Thank you for having me. I have been 19 years in games, running studios. At Cooperative Innovations we develop technologies for the games companies, as well as providing services to them. For over 25 years, originally developing software from the start, it has been providing that technology for virtual reality and various multiuser experiences.

The Chair: We have four categories of questions. I will get going in a minute, but the other categories that we will cover are growth capital, government support programmes and, finally, the impact of AI on growth in the creative tech sector. We are very keen, as far as possible, to understand what the specific challenges are to creative tech businesses versus other forms of tech scale-up. Perhaps you could start by giving us a sense of your experience of scaling up in the UK, and what specific barriers you face that you think are unique in your area.

Simon Barratt: The big challenge has been that we are serving a smaller market locally, so we tend to travel a lot for US and European conferences and events, mainly to access those different markets to sell our technology and services to. That is one in terms of the local sector we have to support. Most of our clients tend to be international for that reason.

With the support on the ground, there is a big problem of signposting our solutions versus internationally available ones. We may get funding from a UK funding body, but then those same funding bodies might support a

different project elsewhere in the UK, and not say, "You two should be chatting together, collaborating and building a wider UK offering to the local sector, but also internationally". That kind of disconnect has been a big challenge for us over the years.

Recently we had a platform called Curatours, which is a virtual museum and heritage platform we had developed with £25,000 of funding from Innovate UK. We had probably spent about £250,000 developing that same solution. We are working with museums and heritage sites to bring in their content and show it off to the public for free—this kind of offering. Then we see £8 million or £9 million go to universities to do the same thing, rather than doubling down on what we had invested ourselves. It is a shame really, because we end up running around trying to connect the dots, whereas it seems like something overall could have closed that circle for us.

The Chair: We will probably come back to some of this when we get to the government programmes.

Peadar Coyle: There is probably some misunderstanding in the VC community. Creative businesses are perceived as less IPO-able, less valuable et cetera. Whether that perception is true is separate from the fact that it exists. Also, fundamentally, you are dealing with emotional subject matter and selling into a market that, while I do not mean to say it is less analytical, has certain attributes like that. Those sorts of things make scaling somewhat challenging.

To echo the point that the gentleman beside me made, you have to be almost global from the start. That means that you spend a lot of time jumping on planes or sending people on planes to various other markets throughout Asia and North America.

Victor Riparbelli: As a business, we sell to the creative industries, but we also sell to everyday businesses, so I think that we are a little bit different in shape from the businesses of the two gentlemen to my left. For me, one challenge has been access to senior talent. We are at the scale of a company now where we need to bring in senior leaders who can help us scale from around 500 employees into, I hope, the thousands, and eventually to an IPO one day. There is definitely a shortage of talent in the UK, so we have had to find people, generally in the US, and bring them into the UK. That has been, to some extent, painful, depending a little bit on the profiles and where exactly they come from. That is one of the things that I am noticing in my business specifically.

The Chair: To prod a little further on the question of access to talent, when we had our panel last week, who were predominantly representing AI-first businesses, they were actually more positive about access to talent in the UK. Is this quite specific to either your business or creative technology businesses?

Victor Riparbelli: At our scale, we are looking for a different type of profile. For finding AI researchers, developers and all the people we have had to hire up until the stage of company that we are at today, the UK is

great. There are many great universities, and the technical talent is phenomenal. When you are looking for executives who have seen companies with thousands of employees and hundreds of millions of dollars of revenue, those are rarer, just because there are not that many businesses and thus that many people who have seen that scale in the UK. For the developers and AI researchers, I totally agree that the UK is a great place.

The Chair: Does anybody else have anything on talent?

Simon Barratt: On the creative technology side, specifically on games development, we have struggled a lot; our very senior talent with 25 to 30 years of technical experience, building from the early days of computing, have tended to go into other sectors, whether that is the automotive or the AI sector. There is a lot of investment in that space now. From a salary point of view, we are competing on that level.

A lot of our senior talent ends up training the new talent coming through, because the universities are not outputting people quite at the standard we need them. Therefore, those people are looking after 10 junior staff and training them up, instead of spending their own time solving interesting problems. Ultimately, most developers want to be solving interesting challenges. AI, self-driving cars and other sectors have potentially more interesting problems they get to work on day to day. You are competing not just on salary, but also on the challenge and the opportunities you offer them.

We have seen this over the years where there is a bubble, whether it is blockchain or other things that come along. That tends to be the focus of investment, but also the talent tends to move around because of that, especially in a relatively small country.

The Chair: Is there anything in particular for you on talent, Mr Coyle? If not, what about access to specialist facilities or equipment? We talk about compute power and that sort of thing, which people need and do not always have great access to.

Peadar Coyle: I have heard it proposed before that government subsidising of GPUs and access to compute would be one way to accelerate, particularly in the scale-up, start-up sector. That is one possibility. Talent and compute are probably two of the most constraining factors of growth for any company. I think that that plays to the two gentlemen to my left and right as well. It is a universal issue. We invest a lot in training people up internally. We work a lot with some of the good universities, such as Queen Mary and Cambridge, in terms of hiring, but these things are hard to solve overnight. There is a lag effect in the overall market.

Q53 **The Chair:** Before I move on to my colleagues, the final thing I would be quite interested to know at this stage is what your view is on the wider creative sector's readiness to adopt the sorts of technological solutions that your businesses may be offering to them. Mr Riparbelli, what is your view on that?

Victor Riparbelli: I should preface this by saying that we do not actually sell to the creative industries that much. As a company, we develop video technology, but our customers are mainly the Fortune 500, which of course is a very different type of customer than the creative industries. That said, we have had some interface with creative industries in the past.

In general, it is difficult because AI disrupts a lot of the business models that traditionally have worked in the creative industries. There are areas such as 3D modelling where AI clearly will play a big role and to some extent will make it a lot easier to animate characters in a video game, for example, because there will be less human effort and more automation. When industries get disrupted by that, it is always difficult, because they face some degree of innovator dilemma. There will be a lot of people who have been doing things a certain way for a long time and it is difficult for them to change.

I do not think that that is specific to the UK. That is in general all over the world. It helps, from my experience at least, that the companies that potentially are disrupting them and can help them augment the workflows that they do are close to them. I have had a lot of physical meetings with UK businesses and that helps the transition a bit more, rather than having to deal with a faceless American entity, for example, that feels threatening to your business. As I said, for the last three or four years we have not been selling that much to the creative industries, so I will let the gentleman to my left speak.

Peadar Coyle: We sell to media and entertainment primarily. There is definitely an AI fear there and a lot of our sales process is about that. Even some of the people we hire could come from that creative space as evangelists to help understand our workflows. Fundamentally, we see that the rise of ChatGPT and stuff led to AI being used by a lot of these businesses, so it becomes more of a strategic need. Also, a lot of these businesses are under various structural pressures, in terms of cost saving and operational excellence, so that is driving some of the things. Still, it is an ongoing crossing the chasm moment that will take some time. It is not as quick as I would like it to be.

Simon Barratt: There is a lot of movement from creative industries nowadays, whether it is virtual productions—so the use of game engines to produce film and TV, or virtual reality, which is heavily based on a lot of games technologies that have been developed in the last 20 years. It was almost like a lot of the creative sector forgot that we have those skills and companies in this country. Yes, some big tech company is building this, using the tools and everything else, but it goes back to the original point I made around connecting the dots. We were offering solutions, as a small company producing this technology, but it is about being able to get that into people's hands. If there was one funding pot to produce a new project, something might be created from scratch rather than using existing tools and people in the market to do that work with them.

Q54 **The Chair:** There was one final point I wanted to ask. Is it your view

that within your world not everybody wants to scale up? This is an inquiry about scaling up, but should I assume that not everybody wants to do that?

Simon Barratt: That is fair. I have friends who have worked in games for many years and are quite happy running a business that just pays them a nice little bonus so they can make their next game using that funding. They are quite happy not to be running a team of 20 to 40 people, as I have done and grown over the years. It is a huge overhead when you are talking about the salaries and everything else. In terms of achieving the ambitions we have as a company and the technologies we want to develop, you need to scale to support that.

Speaking from a games point of view, you can still make a great game with 10 to 15 people or contractors and a core team. That is perfectly valid, and those companies can still make significant revenues. Vampire Survivors is a game recently built by one person that made something like \$300 million or \$400 million. All this is possible. It is just a case of how much of an overhead and life stress you want while doing that.

Q55 Lord Hall of Birkenhead: We have heard in previous sessions that companies wanting to scale up have found challenges in accessing capital for growth. The risks that the companies you are dealing with have are not understood properly, or they are seen as being too risky by the people with potential investments. Is that the case? If so, what do we do about it?

Victor Riparbelli: To clarify, we are more of a pure software business than a creative technologies developer. We are a more traditional VC-friendly type of company. However, we started the company back in 2017, before generative AI was on everyone's lips as it is today. We started from much more of a creative sector point of view. Back then, it was definitely very difficult to find funding to develop the first iterations of the technology.

That is due to several different things. If you contrast the UK early stage funding ecosystem with that in Silicon Valley and San Francisco, for example, there is definitely a mentality in the UK of being much more risk averse as opposed to looking for opportunities. It is more about how it could go wrong versus how big it could get. In the US, they are known for asking, "How big can it get? If it really works, this could be a great big company".

We definitely faced those challenges early on. That gap has become smaller throughout the years, but having known a lot of creative sector businesses, as well as the one I founded myself, it is definitely much harder. Structurally, if you look at how gaming companies, for example, are valued versus software businesses, it is a very big delta and that makes it very difficult.

Lord Hall of Birkenhead: The gap between the US and us, as you say, in terms of attitude is now smaller. Do you think we also have a lower tolerance for failure, whereas in the States there is a sense that, if it does not work, you move on?

Victor Riparbelli: Yes, plus a lot of the financiers in London, in the venture capital ecosystem, traditionally come from more of a finance background. People who worked in private equity will then go down and do venture investing. In many ways, that is a great skill set, but you cannot understand early stage businesses through Excel sheets alone. If you go to the west coast of the US, most of the people who invest in companies are technologists. They come from different backgrounds.

That is always something I have felt very strongly. In the UK, you are evaluated more by the finance industry than the technology industry. We are at the series C stage now, so we have raised quite a considerable amount of funding. The later the stage the company has got to, the easier it has been to raise money in Europe, because you can understand our business through numbers. You can put us in an Excel sheet. You can say, "This is a great business and we think that in five years' time it'll be a lot bigger". In the early days of the company, there was no Excel sheet to build. You actually had to understand the technologists, gaming, visual effects and video.

Lord Hall of Birkenhead: What do you do about that?

Victor Riparbelli: We went to the US.

Lord Hall of Birkenhead: What about from the UK's point of view? You can go elsewhere, but is this something we should be doing too?

Victor Riparbelli: One thing that helped us, and one reason we survived those early years before the company was really working, was grants. I think that we did two Innovate UK grants in the early days of the company. We raised in total something like £300,000 or £400,000. That additional money kept us going until we were at the point where we could raise venture capital, so that is very good.

In terms of the risk, it is very cultural in many senses. I am from Denmark. The European mindset is more risk averse than in the US, but one component of that is the amount of capital available. If you have much more capital available, you have to think bigger. In many instances, that is also one of the big drivers of the difference between the mindset that you see on the west coast in the US and Europe in general.

Lord Hall of Birkenhead: That is very interesting.

Peadar Coyle: To echo Victor's comments, yes, it can be challenging in the early days. We also raised money from Innovate UK grants, which helped with some of that, getting us through the pit of despair. We also raised corporate VC money quite early—from Australia, ironically. That is where we went.

Lord Hall of Birkenhead: Is there a cultural difference between Australia and here, or was that just happenstance?

Peadar Coyle: We discovered at the time that at least selling to technology buyers who understood the problem space worked. Of course, at that time there was probably a bit more plentiful corporate VC money.

Lord Hall of Birkenhead: It was also understanding, again; that is what you are both saying.

Peadar Coyle: Yes, and why Australia? I have no idea. We were global from the start, so why not? That is a different kind of investor type from a traditional VC, which is a bit more like the financial models Victor described earlier on. They at least understood the problem space, so that was part of the reason. Perhaps that is one lever we have here in the UK with media and entertainment companies that may want to fund these kinds of risky endeavours in the early days.

Simon Barratt: I would definitely echo the points that have been made. SEIS and EIS have been very good.

The Chair: Sorry, say that again.

Simon Barratt: SEIS and EIS are investment schemes that allow people to offset their taxes.

The Chair: I see what you mean. I thought that there was another government programme that we had not heard of.

Simon Barratt: If you find one, let me know.

The Chair: There are lots already that we are trying to get our heads around.

Simon Barratt: That has been useful for us over the years. We raised a pre-seed back in 2018 for Cooperative Innovations. I have another company raising some funds right now and that has been very useful for us there as well. To echo the points made, it is understanding that risk appetite and timing of things as well.

We have been virtual reality developers since 2015. There have been various points where we could raise money. There have been various points where we could not. We have been doing exactly the same thing throughout, but because it is the trend, it has been popular, or there has been a success in the market, that is the time to raise the money. While you are trying to build your products, build your teams and everything else, if you are also the same person who is out there fundraising and cannot time and align things properly, you will miss out on that funding bubble, as it were.

Obviously, AI has a huge amount of interest right now, which is brilliant for fundraising in that space. If you are a specific part of creative tech and you cannot point to an example and say, "That's the pattern you need to match", which is what a lot of VCs tend to do, understandably, it is a problem for us when trying to build a company at the early stages.

Q56 Lord Hall of Birkenhead: We are going to move on to government scheme support and so on in just a second. There is one narrower thing, and you just mentioned it, which is R&D tax relief and the difficulties of definition. If you are in the creative industries, you have a problem because you do not get it, basically. Is this an issue?

Peadar Coyle: We have definitely had issues with R&D tax credits, although not so much in terms of fulfilling innovation criteria. By the

way, innovation is not mentioned in the definition of tax credit; "Uncertainty" is the word that is used. They have changed the scheme various times in the last couple of years and that adds a huge amount of uncertainty. From a cash-flow management point of view, that is difficult. I know that a number of other businesses had similar issues. I get Facebook or WhatsApp messages such as, "Are you having any difficulty with it?"

I am also of the view that HMRC should not be running that programme; it should be somewhere else in government. I do not think the tax collector should be figuring out what is innovative or not.

Lord Hall of Birkenhead: So some other arm of government should be defining that. You mentioned the fact that it has kept changing. Is there a steady state that you think is how it ought to be run?

Peadar Coyle: Stop changing it; that is probably one of the first things. We employ an R&D tax consultant, as various other people do. There is a cottage industry around this and a certain element of reporting and compliance. For example, this year they told us that we were not an innovative company or an SME, which is categorically untrue, and we had to disagree with that. I think that that is a lack of training and investment. Just leave it alone for a little while, until we figure out what is—

Lord Hall of Birkenhead: It should be defined somewhere else, rather than by the people who are trying to get the money in.

Peadar Coyle: Yes.

Victor Riparbelli: I have to admit that I have not been involved in the details of claiming R&D tax relief for a number of years, but I know that we have, and I have been very happy with the programme. I remember from the early days that, to Mr Coyle's point, there is a cottage industry around it that is fairly big. That is probably indicative that maybe it is a bit too complicated. It does not feel like you should have to give up a certain percentage of whatever you get in relief to third-party consultants for doing what seems like paperwork.

Simon Barratt: The other industry that exists around it is the loan companies that tend to loan against your tax credits because of uncertainty about how soon the relief might come. If you are planning or trying to plan for tax relief coming at some point for your investment and you think, "On my spreadsheet, I'm going to invest this much; I'll get this much back and that's going into my research and development plans", you cannot count on it. That means that you are going to be paying £10,000 to £15,000 for the forms and everything else to be filled out for the accountants and all that kind of stuff, plus 5% to 10% interest for the cash up front, which is a challenge for small businesses.

Lord Hall of Birkenhead: The change and lack of precise, constant definition is an issue.

Simon Barratt: Yes.

Q57 The Chair: May I ask one other question here before we move on, which is slightly off on a tangent? On the decisions around exiting versus IPOs, I wonder why exit or acquisition is a more attractive option for creative tech versus IPO. Is there anything in particular that drives that?

Victor Riparbelli: I can speak for my business, but, again, we are more of a pure software and pure AI business than a creative technologies business. From what I know of investors, there is a perception that many creative businesses are hits-driven businesses. Hits-driven businesses are historically not something investors tend to like too much, because they are not very predictable. You may get very lucky one year with a game that performs incredibly well and then next year you may have a game that does not perform very well.

If you look at the multiples of how much people are willing to pay to invest in a gaming company, they are often as low as 3 times or 4 times, even for great companies, whereas a software company such as mine will be in the public markets at 15 times, 20 times or 25 times, depending on the performance of the company. There is something structural there. Some of that is probably true. Games companies are more hits-driven than pure software businesses, so that is probably part of the reason why many people consider M&A more than IPOs.

The Chair: You seem to be agreeing with that, Simon.

Simon Barratt: From a games point of view, the companies that have tended to do an IPO have been work-for-hire companies. As has been said before, there is a reliable financial stack. You put in this much in terms of employees working on products or services; therefore, there is a multiplier in terms of the profit and you can predict it from a financial point of view, so the investors on the market understand what is going in. Ironically, a lot of those businesses then tend to do more original new IP afterwards because they have that stability to take those risky bets and then grow profits more, but it is less of a predictable sector for that.

It is just timing as well. Ultimately, it is the valuations and where you can grow to. I guess that it is perceived that a nice exit earlier on may be a nicer opportunity. If it is a hard ecosystem to build in or you think that this is your one chance to sell when your game is doing really well, you would take the quick exit over the pain of IPOs.

Victor Riparbelli: One important thing here is also the CMA. When you get to a certain scale of business, that becomes something you have to consider. The CMA recently blocked the acquisition of Figma, for example, by Adobe. In general, if you look globally around software businesses, it seems very difficult for big tech companies to buy any companies. In some ways that is productive for the UK, potentially, because that will force people to go public, but it can also have the inverse effect of forcing people to sell earlier.

If you are trying to sell your company for \$20 billion, like Figma did, you are definitely going to get looked at by an authority. At the stage of company that I am at, for example, you may begin to think, "Should I really raise more money and go for the IPO, or should I try to do some

M&A before we are on the radar of something like the CMA?" As much as it is intending to help competition, it can have the inverse effect as well. That is something that a lot of people in the tech community are talking about.

The Chair: That is really helpful. We are going to move on but, at the same time, come back, as it were, because we are going to be talking about government support programmes.

Q58 **Baroness Healy of Primrose Hill:** My question is to all three of you, but I would like to start with Mr Coyle. What has been your experience of navigating the various government support programmes? I am confused; there are so many of them. I would be interested to hear your experience.

Peadar Coyle: Thank you for the question. We had some success with Digital Catapult in the early days, the CEO of which I believe was on this panel last week. That helped with accelerating go-to-market, access to AWS credits and providing a support network. We have used Innovate UK grants, R&D tax credits and innovation loans. There is a cottage industry that exists there.

As a general point, the friction in these things should be reduced. There is time and investment involved in navigating them. First, you have to figure out whether you are eligible for them, sometimes needing specialist tax or accountancy advice to understand whether you are actually allowed to proceed. All these things add time and complexity. You do not set up a business to try to figure out which of these schemes you are eligible for, which to take advantage of and stuff like this. That being said, the ecosystem is relatively healthy. SEIS/EIS is a relatively good programme. It is just a little bit tricky to navigate. There is no guidebook, as such.

Baroness Healy of Primrose Hill: Mr Barratt, you mentioned that the universities were getting some funding, yet your companies and other companies were not getting that level of funding. Is that because these systems all have different kinds of grants?

Simon Barratt: Yes. There have been a few programmes over the last maybe seven or eight years that have been really positive in looking at creative companies and technology combined, such as the XR support. There was the wider creative clusters programme. There are a lot of really good ideas on where to fund and support the sectors.

However, large chunks of that, from what I am aware of, went into capital spend in universities for buildings, equipment and other things. That is great and obviously useful for the students and people who can go and travel to use those things. If there is only £25,000 of funding available to a company such as my own, and we have to apply for it and spend time doing that, that is a very minimal amount of our monthly burn rate. We need much larger chunks of money. When you look at the whole £20 million of funding that went into this, only £200,000 went into local companies doing this. It does not feel like the right level of support is being channelled through there in terms of where it ends up.

Baroness Healy of Primrose Hill: Mr Riparbelli, you told me that you had some government funding, but was that very small scale?

Victor Riparbelli: I believe that we had two grants from Innovate UK in the earliest days of the company, so within the first three years, which was when we were still roughly around 10 people. Our inflection point was in 2020, three years after we started the company. I am very grateful for those. They definitely helped us stay afloat and played an instrumental part in taking us to where we are today. The role they played was essentially that we could get some money in when no one else believed in us. That is exactly where these grants should be focused. They should be for companies that have a difficult time raising money and give them an extra chance to prove that they can become viable businesses.

Since then, we have not interacted much with the grants. I think personally that they should be mostly focused on companies that are in their early lifetime. You want to give them a chance even when the capital markets will not necessarily do that.

My memory of it is that there was definitely a lot of paperwork. There was a lot of admin and being very precise on exactly whose hours are going into which parts of it. I totally understand that they need to be run efficiently, but the feeling from us back then was that it was a lot of extra work for that money—it was basically almost a full-time employee for a year to do all the reporting, report writing and so on. Simplifying the process would be helpful.

Baroness Healy of Primrose Hill: Would you say that there is sufficient join-up between existing initiatives, or are they duplicative? I think that you would probably say that there is not enough joining up.

Peadar Coyle: Yes, there probably is not. It is difficult sometimes even to figure out which government body you are interacting with. Sometimes you have to look it up and ask, "Which part is that and who is this?" That is a lot of knowledge that, arguably, entrepreneurs should not need to learn. I get people who ask me, "Do you know anything about this?" and I am like, "Yes, that's UKRI" or "Talk to that person". We need more transparency and simplification, as the gentleman on my right said.

Baroness Healy of Primrose Hill: That is for the Government to take on board, then.

The Chair: May I ask you quite a stark question? Do you think that all these programmes and regimes are worth it? Would you miss them if they were not there?

Simon Barratt: They are definitely worth it. Going back to that last point, there could almost be a pathway through it. At each point you seem to be validating what you are doing again and answering very basic questions about your business, whether it is phrased in a different way and you have to answer it or it is a different Excel sheet you are filling in in a certain way. Once you pass that first barrier to make sure that there are no time wasters in there and they realise your team knows what it is

doing, what the product is and your goals and purpose for your company, it feels like there should be a runway in terms of the levelling up of funding available to get you through that.

I agree that definitely, the private market should take over at some point when you can prove that there is a valid business there, you have revenues and you are building something of greater value. Certainly in the early stages, when it is really difficult, given the amount of time you spend doing it you wonder, "Should I spend this on a place to stay in America for a week to raise some funds instead?" It really is quite close in terms of where the value would be from raising versus applying for something where there is a 1:2,000 chance of getting it.

The Chair: That is interesting. Do you have that sense: "I might not even get this money at the end of it, having put all of this effort into applying for it"?

Simon Barratt: We have a full-time member of staff applying for things or looking out for what is coming. You do not exactly know what the full plan is going to be for everything—what may be coming next. Obviously, wider policy and political things may impact that at some point as well, so you do not really know what is going to happen there. It is a big risk and challenge in terms of that early stage of the R&D, the innovation and how you are going to support that.

You end up maybe bootstrapping by providing services to other companies because you have the technical know-how that is worth a lot on the market. Our company provides services to one of the biggest games in the world. We then put the profits of that into our own development work, simply because either the VC or the R&D grant funding available has not supported us doing that thing. Once we get to a certain tipping point, we can then go out and say, "Here is what we developed", but it took us three times longer than it would have taken, had it had that initial funding behind it.

The Chair: I know that one of my colleagues wants to ask a supplementary question. Before he does, on the example you gave when we were talking earlier about the connecting of dots—Baroness Healy has pointed to this too—is there anything in the structure and regime of all these programmes that you would point to and say, "If they changed that, we wouldn't have to experience this kind of thing again"? I wondered whether you have sat there and thought, "Why do they do this when they could just change it in a certain way and it would work better?"

Simon Barratt: There have been improvements in this space, such as Creative Catalyst from Innovate UK. Recently there has been more of a cohort, getting people together at events, WhatsApp groups and things to share those connections and awareness. Maybe we missed out on having that in previous years, but there is still a wider split between the people in some of these funds and programmes where they are funding a university and where they are funding private sector companies. There is a need for that broader thinking about what the whole ecosystem looks like and the cash grab, as it were, for people looking for funding pots.

From a wider UK point of view, there is definitely a bigger ROI available if they had been connected up in a better way.

- Q59 **Lord Kamall:** Victor, you mentioned that you benefited from a small investment associated with a government initiative. When companies such as yours benefit and are successful, do you think that there should be a requirement, either formally or informally, for them to maybe pay some of that money back to help the next generation? Do you do that anyway as a result of having got that funding from the Government?

Victor Riparbelli: Then, I would structure it as a long-term loan rather than a grant. If it was a loan, I would expect less scrutiny on exactly where the money went. I do not have a strong opinion on that. I hope that the corporate tax we pay will also go to future grants for smaller companies. That would be my view.

To add one thing to that, we have been very successful since then, which means that, if you asked me to pay those few hundred thousand pounds back today, it would not have a material impact on my business. Say that it had not gone as well and we were forced to pay it back in five years' time, maybe it could have been very impactful. It depends a little bit on how things go after you take the grants.

Simon Barratt: There is the UK Games Fund to support games development and creation. I always wondered why there was not a repayable element to that, in terms of topping that pot up, and whether that might then enable the fund itself to deploy it, in ways that maybe government or wherever the funds come from would not like to see, because it spotted an opportunity; or it could be its slush fund for doing things with. It should not be at a point where it could damage the company that got the funding in the first place, which would be very student loan like in terms of repayability. That would definitely allow a much freer market for those funds to deploy, and I would be supportive of it.

- Q60 **Lord Knight of Weymouth:** I am interested in exploring how advancements in artificial intelligence will impact growth in the creative technologies sector. Mr Barratt, our sense is that, fairly obviously, AI has disrupted the traditional creative sector pretty thoroughly. Are funders nervous of how generative AI, LLMs and LMMs will further disrupt even your businesses?

Simon Barratt: Versus my friends on the panel, I am probably the least AI friendly in terms of where we are at regulatory and training data-wise right now. There are some major challenges coming in terms of what LLMs are allowed to be trained on and what the peak of the capabilities is. Being trained on open-source code, YouTube or whatever else they are currently being trained on is a big problem for the creative sector as a creative medium.

There are developers using LLMs to build new technologies right now. The fact that Microsoft and others offer an indemnity scheme for any code you write using their tools is a bit of a red flag for me. For years

and years, I would have to report, on every game I developed, “These are the open-source licences that we have used or the open-source code we have used with the licence around it”. You do not tend to do that any more if you are using LLMs because whatever the licence was around that has somehow been got rid of. GPL was a famous one. That was the protective licence, which meant that, if you used any of that code in your software, all your source code had to be open source. From a commercial point of view, that is very damaging to your company.

Given the fact that, potentially, a lot of GitHub and all these various AI coding tools are now trained on that data, there is a big risk to a company using AI from that point of view. The uncertainty of that damages investors’ confidence in it as well. From a developer’s point of view, knowing that, for anything I put out to the open-source community, I could be passing that forward and someone else could be using that code, that removes my competitive advantage as well.

Lord Knight of Weymouth: I have friends who are actors who can earn good money doing voice work on games. It must be pretty tempting to use the sort of product that Mr Coyle offers in order to replace those actors with technology.

Simon Barratt: Ultimately, the unions and the sorts of fights we see going on in Hollywood are a big part of that challenge right now. It is the same for junior programmers, designers, production people, testing QA staff and everything else. The idea of AI wranglers—people who are watching what the AI is doing and then providing that human element to the co-creation of content—is probably where we are shifting anyway.

I suppose the same argument could be made for game engines and the fact that these are now provided by big companies and everyone licenses those. It is kind of a new tool like that in some ways. Where I would like to see us getting to is the training source being attributed more to who provided that in the first place, and then the rules of the output around it being more strictly governed. The EU is probably doing best right now in terms of where those rules and regulations are coming in. We have a bit of a problem with it coming for a lot of the creative sectors.

Lord Knight of Weymouth: It is unusual for anyone to come before this committee arguing that the EU is leading the way.

Simon Barratt: Yes—on that little bit.

Lord Knight of Weymouth: Generally, when we have been talking to people about scaling AI companies, they want a lighter-touch regulatory environment.

Simon Barratt: I am probably the anti on that, even though I am a technologist and programmer, and have been writing neural network technologies for many years. As a creator of many games and new IPs, it worries me slightly in terms of feeding in huge amounts of data and effectively using that to wash IP through. It is not that anyone is doing that from a negative or a dangerous position. It is just one of the things that can happen there. I am slightly worried about what that means in the future, basically.

Lord Knight of Weymouth: Mr Coyle and Mr Riparbelli, you both have these great businesses offering products that make it easy to produce high-quality audio and video, respectively. Mr Coyle, I am interested in where you get your data to train your models.

Peadar Coyle: We largely use third parties, such as LLMs and text-to-speech providers. In terms of data that we collect internally, we have either acquired it or generated it during the process. A lot of my work in the last couple of years has been on licensing and figuring out how to fairly compensate creators.

I echo the comment by the gentleman on my left that jobs are changing. We have a creative director. He spent 30 years in radio and is fascinated by the number of things that he can now do with his voice that he could not do before, with technology such as speech to speech and text to speech. It is allowing him more creative range. He is an early adopter on this stuff, but he is seeing very similar things out in the wider media and entertainment industry. There is a change happening whereby people are seeing the benefits of AI for their work.

Lord Knight of Weymouth: Would you say, in general terms, that there are a good amount of people being genuinely creative with the technology, rather than just using it to replace expensive humans?

Peadar Coyle: Replacing expensive humans is a very simplistic argument and this is not how the world of technology works or how innovation has worked historically. Our jobs did not get destroyed by tractors being invented. We are sitting here, discussing things. We no longer work on farms, for example, but I see so many opportunities. We are seeing that out there. Human creativity is almost limitless. If you make things cheaper, you open up new opportunities that were not there before. That is generally what we see in the market.

Lord Knight of Weymouth: You said that you have been wrestling with licensing agreements for the last two years. We are really interested in the copyright issues in AI. Where do you think that is going? Where should it end up?

Peadar Coyle: We are seeing the emergence of new standards. There is Fairly Trained. There is the Content Authenticity Initiative from Adobe. There are various "this is AI-generated" watermarks. We have a white paper coming out about this soon, which mentions some of these topics. We are still figuring out where that is going to be. I think that in 10 years' time there will be a GPL or an MIT licence for data in the same way that we had that for source code. I think that we will end up with some sort of standard that is accepted by the market or regulators, however it is going to go.

Lord Knight of Weymouth: Meanwhile, your training data is coming, I think you said, significantly from LLMs. Are you happy that you have fairly recompensed the IP that was in that data through licensing and whatever you had to pay for the LLM access?

Peadar Coyle: Yes, correct.

Lord Knight of Weymouth: I have a similar set of questions for Mr Riparbelli. Do you want to talk us through your training data source and what the financial arrangements around copyright might have been for all of that?

Victor Riparbelli: In our current product suite, all data is data that we have captured ourselves and of course paid everyone involved. We built a big 3D studio that we spent millions of dollars on here in south London. We have captured hundreds of people in that with 82 cameras, like you would in a Hollywood visual effects studio. We have captured thousands of people in the US and abroad. All that data is used to create our algorithms today.

In the future, what data capture is going to look like is a good question. It is inevitable. What we have seen in the world outside of our own product suites is that, if you train on all the world's data, you can build better products. There are a lot of open questions on what that means for how we build products, how our competitors build products and what we as a society think is the good thing to do. I do not think that I have all the answers.

The copyright question will be one of the most important ones in terms of figuring all this out. You have a country such as Japan, which has said that, if content is publicly available, you are okay to train. That means that there are now companies setting up offices in Japan to train their models. There are other countries that have said that it is absolutely not okay. We are waiting to see what the right middle point is, but the cat is out of the box. No matter what, you are not going to be able to put LLMs back in the box.

I do not have the political or regulatory answer to that, but we have to admit that we have built a technology that is truly magical. It is unlike anything we have ever seen before. It will have a dramatic impact on the world, mostly for good, but also for bad. We need to curb those things, but that is an inevitable fact. Looking historically, one analogy is Google Search and Google Books, which was a project where Google scanned thousands, if not millions, of books automatically, without actually having the right to do so. That project was eventually deemed to be so much in the public interest that the rules were changed. It was allowed to do that. I do not have the answer, but the cat is out of the box and we will have to figure out a way that satisfies both parts.

Lord Knight of Weymouth: Do you think that the regulatory uncertainty impacts investor confidence in investing in your business or businesses like yours? No, so there is no sense of urgency for you in resolving this in regulatory terms.

Victor Riparbelli: Venture capitalists are in the business of taking risk. It is very clear that these technologies are so powerful that they are okay taking that risk. It is mostly the people who buy the products. You could say that that spills over to the venture capitalists to some extent, but we have always put a lot of effort into being an ethical company. We founded the company on an ethical AI framework. Copyright is an element of that, but it is also around AI safety, making sure that we

have full consent for anyone who we are creating videos of and that we have content moderation. We take a very strong stance on what kind of content we are allowed to create on our platform.

As much as that has potentially short-term negative effects for the business in terms of creating viral clips, for example, that may have got us a lot of attention, we are seeing now that, in the enterprise, people care about working with companies that are ethical and that they feel are doing the right thing. That does not mean that we have all the answers, but it means that we are making a serious effort towards that. I would like that to be reflected in how we regulate these technologies as well. That is good for the world.

Q61 **Baroness Wheatcroft:** You have talked about the positives of being in this country, particularly as you were starting up, with talent being really quite plentiful at that stage. You also all talked about the difficulties you have encountered here. You each have ambitions to grow big. Do you think that it would have been easier and quicker to realise those ambitions had you started somewhere else?

Victor Riparbelli: Yes, had I been on the west coast it would have made some parts of it easier, for sure. I am from Denmark; I grew up in Copenhagen. It is a lovely country, but not a great place to start a business, if you ask me. The reason I ended up in London was that I could not get a visa to the US, to be completely honest with you, and I had a lot of network in the UK.

I have since then been very happy to be here. The UK has a bit of a brand problem, to be honest. In many ways, London is a great city. I moved here having had my education already, being single and being ambitious, so I have only experienced that side of London, but in many ways London is a great place. SEIS was hugely beneficial to us. Innovation grants, as we covered earlier, have been hugely beneficial to us. All the universities and the great talent that has come out of here have been great.

Baroness Wheatcroft: You are staying.

Victor Riparbelli: I want to stay. Where it becomes difficult is once you begin looking at an IPO. As I am sure everyone here is aware, there are not a lot of success stories on the London Stock Exchange, unfortunately. That is not something I am thinking about for next year, but I am going to have to think about it within the next five years.

Peadar Coyle: I am Irish, so ending up in London is quite a natural endeavour. London has great access to universities, great talent and a great ecosystem. There have been various policy changes since I moved here that might affect things, such as on immigration. These are things that become more concerning or worrisome from an overhead point of view, but this is a great place to set up a company.

Simon Barratt: From my point of view, in building an early-stage company, I had the network of potential employees and talent available in the UK. Effectively, a lot of the games industry was created in the

UK—those early skills and developments, and everything else—so I would not have wanted to start it anywhere else. On access to finance and other things, there are definitely opportunities there. More recently we have the challenge with visas and bringing talent in. We have inboxes full of applicants from all over the world, and it was previously a little easier. Now it is a lot harder and you take a risk with everyone you employ, as you do not know until six months in what is going to happen with them. Certainly for earlier stage companies that is a huge challenge. We have no plans to be anywhere else, but there are challenges.

The Chair: That is a neat place for us to finish. To all three of you, thank you for being here this afternoon, but also thank you for being here in the UK. I mean that. It is very good to have you here before us and to hear from people who are taking risks, building their businesses and innovating. We want you to stay, and we hope we can make a contribution to ensuring that the conditions for businesses to innovate and grow in the UK are compatible with your ambition.