

The Future

**PROFESSOR LAWRENCE LESSIG, PROFESSOR
STUART CUNNINGHAM and SAL HUMPHREYS**

PROFESSOR LAWRENCE LESSIG

I am happy to be on this panel because it is a little bit of a reminiscing for me. When I first started working in this area and wrote *Code and Other Laws of Cyberspace*²⁵⁶, which was published the very week that I came to Australia for the first time, it was the virtual world's experience that motivated the central metaphor of the book. It was watching the way virtual worlds in the MUD and MOO context developed that made me start thinking about the relationship between technology and legal policy and that has of course been at the core of a lot of the work since. But today I want to talk about three points, none of which are really about the relationship between technology and policy, but all three come out of a course that I just taught last term with Julian Dibell who was one of the protagonists in my first book, and really come out of watching this field become a serious field in the context of both commercial and, increasingly, regulatory questions. The three points I want to make are first that this is real, despite its moniker 'virtual', second that it is common, in the sense that it's everywhere, not just in virtual worlds, and third, that commercial interests have exactly the wrong intuitions about how to think about this space.

First, that it is real. Some of the most significant work in getting people to see why this is a significant issue has been done by economists who are trying to demonstrate the extraordinary economic wealth that's being produced in these worlds, in particular Ed Castronova's work estimating the value of these very virtual worlds, and in some of them the per capita GDP is greater than per capita GDP of Romania, so these are huge economies if you use relatively sophisticated techniques to estimate the value of the stuff being produced in these spaces. And it is not just the value being produced in these spaces; there is a story, which because of legal reasons has never been published, so I am going to vaguely refer to it, breaking all sorts of confidentiality agreements, but if I am vague enough nobody will ever know.

²⁵⁶ Lawrence Lessig, *Code and Other Laws of Cyberspace* (1999) Basic Books, New York

The story is about a gaming company that got into a lot of trouble because it changed its rules about whether you are allowed to re-sell objects and when they changed their rules, the people who had invested a lot of time making objects and re-selling them said, “you broke our contract”. And somebody went to investigate these people making these claims and they turned out to be located in Mexico and it turned out a company had set up a virtual sweat shop in Mexico, where they brought Mexicans in and had them sitting in front of a computer, clicking 24 hours a day, creating the objects that were then sold on eBay and that that process was profitable. They were making a huge amount of money by taking these labourers and forcing them to play this game where they produced little objects that were sold in the real world. That is as real an economy as you are going to get anywhere. It has proved to be valuable to hire people to engage in this kind of transaction, and when you begin to add up the amount of wealth being devoted in time in these spaces, it is something that we who think about this from a policy perspective have got to consider much more generally. That is point one.

Point two, the form of creativity that is going on here, or creation that is going on here, is common in other spheres of social and economic life. Think about three examples, one the virtual games, where people spend an extraordinary amount of time investing in producing objects of wealth voluntarily. The Trainz example from the last session was a great one about people spending an extraordinary amount of time doing stuff that produces value but they do it voluntarily. They play and it turns out they have the same value as work. This is *play as work*. That happens also in the context that Eric von Hippel writes about user contributed value to ordinary production processes, as users become inputs into helping design these production processes. That is the one I do not want to talk about much.

The one I want to make the most direct link to is the free and open source software world, where there is an extraordinary amount of value produced by people playing, tinkering around with little objects, that turns out to be like work because it produces really powerful operating systems, or really powerful servers, that *ex ante* nobody would have expected could have been produced like this. They would have said it was impossible to produce it like this. Intuition would have told you it could not be done, but the lesson to be learned is that the intuitions are wrong. We had better re-think the models that drive the intuitions that show us that these massive, collaborative, voluntary projects cannot work, and we do that by beginning to link the very different contexts in which they are happening and

beginning to recognise what makes them work in these very different contexts.

What makes open source or free software projects work? It is all the same kind of questions that are being asked in the context of the gaming communities. It is precisely the same issue. What do you do to both convince people that they have enough ownership of the project to make it feel like they are actually contributing to something that is theirs, while on the other hand, not allowing the feeling of ownership to translate into a commercial transaction so they begin to demand health benefits for the coding in the operating system context, or something like that. It is this weird balance that has to be struck and the fact is it is struck in the most dramatic and amazing context, for example, the new Linux operating system, and increasingly in lots of other contexts like that. If the gamers want to understand, or the game companies want to understand how to make this work, they ought to start looking at these other successful contexts, as well as at the work of Yochai Benkler and Steve Weber in his recent book about the success of open source resources.²⁵⁷

Third, about the intuitions of these commercial entities: when Julian and I taught this course we were teaching it in Silicon Valley, so we had a great opportunity to bring in the corporate geniuses who thought they were going to make billions of dollars off of these game companies. We had the President of ‘There’ come in. ‘There’ was a gaming company where people contributed a lot of energy to turning this game into something interesting and real and we had some very sharp students in the class, who were extremely sceptical of this man. In ‘There’, there were ‘There’ dollars, ‘There Bucks’ having an exchange value of 17.89 to 1 – \$1 got you 1789 ‘There Bucks’. Where does 1789 come from? That is the year the Constitution was ratified in the United States. Everything in ‘There’ was grounded in the idea of America and how great America was.

One student in particular started asking the President of ‘There’ some questions about the way life was in ‘There’ and so she said:

“When you produce things in ‘There’, who owns what you produce?”

“Well, what do you mean?” he replied.

“Well I create something, who owns it?”

²⁵⁷ Steven Weber's *The Success of Open Source* (2004) is a complement to Yochai Benkler's classic essay, 'Coase's Penguin, or Linux or the Nature of the Firm' (2002) 112 *Yale Law Review* 369.

“Well the user licence says that we own it, ‘There’ owns it”.

‘There’ was very famous because they were going to rent out spaces to Nike, or Sony, so she then said:

“Well when Nike and Sony make things inside of ‘There’, who owns it then?”

“Well, of course, Nike owns it”.

“OK” she said, “so you’ve created a world where authors get nothing and corporations get everything?”

“Well, yeah. How else would you do it?”

And she said, “well the American way”, which was exactly the opposite.

The copyright clause made so authors got it and corporations could not, that was the whole point.

The other great example she hit him with was (she is now a Prosecutor, she is perfect for this job):

“So do you have the right to free speech in ‘There’?”

He said, “of course, you have the right to free speech”.

“So I can put a poster up on my lands”?

“Absolutely” he replied.

“And I can buy land anywhere”?

“Sure”.

“I can buy land next to a Nike store”?

“Sure”.

“Can I put a poster up on the land next to my Nike store that says ‘Nike uses Sweat Shop Labor’?”

“Er, no, you can’t do that”.

The point was that the natural tendency and attitude of this corporation was to think about these social relations in a purely corporate way, and we have to remember what the essence of a corporation is. As Ronald Coase taught us in his most famous, first, big article, a corporation is a communist organisation, right? A corporation is that space where it is just power that directs what happens inside, and the market place is outside the corporation. When you have this mentality where you own everything

inside the corporation and you include your users as part of the corporation, that produces a certain reaction from your users.

Many people will say from this, “then we have to start thinking about corporate responsibility, and are they actually answering their responsibility to their users?” That was the theme of the last panel. I am less convinced that this is an issue because I am convinced there is going to be great competition between corporations here in producing virtual worlds that actually give users what they want, and the ‘There-type’ corporation is going to fail miserably.

‘Second Life’ is an alternate vision of this, which has a different sense of who owns what. I think it will be much more successful. Second Life announced early on that all owners, all users, owned their IP, and then the question was, well how were they going to enable people to share the IP? They said to us at Creative Commons, ‘why don’t you help us build Creative Commons licences so that inside virtual worlds you can actually share IP according to the Creative Commons licences.’ And that led to a really brilliant suggestion which they have not implemented yet but we are talking about, which is this: in Second Life, you can be video-camming and while you are video-camming what is inside Second Life the video camera can record or not record on the basis of whether the thing you are taking a picture of is under Creative Commons licence or not.

If you do not license your stuff under your Creative Commons licence as you pan across the room, it is just invisible, but if you do licence with a Creative Commons licence then it is visible, so this is a way of making the licensing stuff ‘real-virtual’ – I do not know what you want to call it – but as real as virtual could be by actually implementing the rules and the way the technology functions, and the expectation was that this dynamic would drive people to be much more open and communal about how they produced and did their stuff with intellectual property because that’s the only way they, literally, would be seen inside this world.

A final point about that consideration: the people who are going to be most successful in these gaming worlds are the people who have been trained in PhDs of the history of liberal societies, you know people who got their PhD from Steven Holmes. Steven Holmes’ whole theory about liberal societies is that societies when they became wealthier only became wealthier because they realised the government needed to exercise less and less power, that this was the paradox of power. That if the government exercised the maximum amount of power, the society was very poor, to the

extent the government exercised less power, societies became wealthier. If a President of a corporation recognised the insight that Holmes et al have put forward, and built a virtual world around that insight, we would begin to see a virtual world replicating the kind of growth in wealth that the real world saw when the real world learnt exactly the same lesson.

The ultimate point here is that there is no significant difference between the real world and the virtual world, and the conclusion from that is we ought to start learning lessons in the virtual world which 500 years of history in the real world have taught us.

PROFESSOR STUART CUNNINGHAM

I am going to take a somewhat different tack. While I will end up with games, I am going to start with the question of innovation and the place of creative content, particularly cutting-edge, new media, emergent media forms and their place in national innovation agendas because this is where, from a public policy point of view in many countries, the greatest potential for growth in these emergent sectors, lies. As I say, I will end up with some comments about games and how games fits into this, but I am going to make a general set of points about the relation between creative content and the innovation agendas of international policy terms.

The first point to say is that they do not really connect at all. National innovation agendas, as constructs of public policy, conspicuously absent the whole area of creative content from their purview. At best, the humanities and creative arts areas, disciplines, are seen as mere hand-maidens, afterthought hand-maidens, to the power houses of new sciences as they drive innovation and research and development agendas. The best that the human sciences can hope for in this context is, usually, that they are seen as ways of understanding and managing the consequences, as one policy document says, “manage the consequences of moving to a knowledge-based economy” but, of course, implicit in that is that they could never be seen as a driver of that growth economy.

This hand-maiden model that is so endemic to national innovation thinking is patently inadequate to capture the growing contribution of creative content industries and the social phenomena that we have been looking at around the games phenomena, the social phenomena that have rapidly grown around them in contemporary society. Creative production and cultural consumption are an increasingly integral part of growth economies,

not merely part of analysing and managing it. The creative industries, it goes without saying I suppose for this audience, are a significant sector of many, if not most, advanced economies.

In US copyright industries, as they are usually called, are worth \$791B in 2001, representing 7.75 percent of GDP. They employ 8 million workers in the US. The share of US exports was \$88B, almost \$89B, outstripping the chemical, motor vehicle, aircraft, agricultural and electronic components and computer sector industries in the US exports. In the UK it is a little bit less, £112B, employing 1.3 million people, £10.3B in exports in 2001, over 5 percent of GDP. They are big, growth sectors of the economy, but they are also drivers of the knowledge economy in general and enablers of other industry sectors, especially through the provision of digital content, which is increasingly translating directly into competitive advantage and innovation capability.

In the light of that you would wonder why they do not occupy a much stronger place in innovation and R&D thinking in Western countries. Most R&D and innovation priorities reflect the science agenda at the expense of these growth sectors, but when we look more closely we see, as Jeremy Rifkin says in *The Age of Access*, that the broad content industry sectors that we're talking about here, business, education, leisure and entertainment, media and communications, represent 25 percent of the US economy, as an example, whilst the new science sector, the sector that has been the recipient of most innovation and R&D investment – that is biotech, fibre construction, materials, energy, pharmaceuticals – accounts for only 15 percent of the US economy.

Most OECD countries are increasingly consumption driven in their economic shape, 60 percent of GDP in Australia, 62 percent of the US GDP is consumption driven, and the social and cultural technologies that manage and stimulate consumption all derive from, or mostly derive, from these disciplines of humanities, creative arts and the human sciences. There is an argument that I am trying to make here for a very significant gap between where innovation and R&D thinking is at present in most OECD countries, and where creative content is going.

How does that relate to the games sector? I see the games sector as a prototypical case of an innovative, R&D driven, or an R&D intensive, sector that should be integral in any country's innovation and R&D agenda. Consider, when you think about the history of electronic games from the 1970s you have had a massively rapid and intensely innovative cycle of innovation in

terms of shape, architecture, inventiveness and rapidity. This has all happened in slightly more than 30 years of history.

The games sector is an intensely research and development driven, very innovative sector and some of the writing of the kinds of fields that I am familiar with, not being a lawyer, in the media, cultural studies, communication studies, areas, some very interesting work that has been done on innovation in the games sector. A writer that John Banks referred to earlier, Henry Jenkins from MIT, has written very interestingly on games and their relation to the history of aesthetic innovation in the 20th century. He says that games have been created without the safety net that inherited modernist rhetoric provides for established art forms and talks extensively about the way in which games are re-creating the template of what aesthetic innovation is, and in some of the work of JC Hertz, particularly in a piece called *Harnessing the Hive*, she brings the notion of innovation of games to centre stage, particularly emphasising the issues of collective IP, that Lawrence Lessig has just raised.

Hertz addresses collective IP at a user level, collaborating with games developers and the challenges of producing, of capturing the dynamics of collective IP. She talks about the way in which innovation is content driven rather than technology driven in games. Hertz says that innovation is anthropological rather than technological in games. It is about the network effects of social networking and that this is the most advanced example of network effects (with massive multi-player, online games) that we have seen so far in virtual environments. The case for innovation and R&D in games is, it seems to me, a very powerful one. Perhaps the biggest issue here is the way in which, particularly the online games world, is producing a new template that is highly recursive, that breaks the linear value chain, and is opening up a whole set of highly disruptive challenges and opportunities in re-thinking the relation between proprietary and non-proprietary, amateur and professional, and so on. There are huge issues that are going to become driver issues arising out of games, but impacting on a number of other areas over the next generation of innovation in this sector.

SAL HUMPHREYS

I am going to shift the focus just a little and come back to something Professor Lessig mentioned, which I don't agree with entirely. In massive multi-user online games, people are creating communities inside of proprietary spaces, and this throws up some issues that are not to do with

property; they are to do with community management and they are to do with the fact that a games company that is publishing an MMOG (massive multi-user online game) has also now taken on the role of being a community manager, and that is not a role that is a familiar one to any publisher.

Most publishers do not have to manage communities. They do not have to intervene in their consumers' disputes. They do not have to manage their consumers' bad behaviour. They do not have to manage conflict resolution between their users. This is all stuff that MMOG publishers have to do. It indicates we have seen a shift here from a publication model to a services model, and that the MMOG represents a hybrid of the two. It is not so simple as to say that is an uncomplicated hybridity because publications and services operate with different institutional practices.

The institutional practices around a service industry are quite different from those around a publication industry, and I suggest that a publication industry is mostly formulated around the idea of property and so all its institutional practices and the discourses that circulate, in terms of user innovation, in terms of what players are actually doing, are about what kind of property they are generating. But we have also moved into a services environment here, and we now have the element of community inside of these proprietary spaces. We are dealing with social networks which are at the heart of the business plans of these publishing corporations, as the social networks are what drive the retention of players in games.

Usually, with a single player game, players will play until they have mastered it. Once they have cracked it, they move on to the next one. What happens with a MMOG is players become enmeshed in social networks inside the game and they will play for years beyond their mastery of the game. Because they are run on a subscription basis, and players pay a monthly fee in order to access it, the longer you can keep a player accessing the game, the longer you get their subscription fee. If you are relying on them staying inside the game because of the social networks, it means really that the social networks have become integral to the business plan. They are part of what drives profit. To say that if the contracts that determine the terms of service under which those players play, the EULAs (the End User Licence Agreements), are unconscionable, players should just leave, is to ignore the very social nature of what keeps them in the game, that the stickiness of the game is the socialness of it, and thus the switching costs are terribly high.

If you have been playing a game for three years and you decide that you have been treated unconscionably by the customer service team, it is not a matter of just upping stakes and moving to the next game, because all your friends are inside the game that you are in. So the switching costs have become very high. It is not as simple as changing products. It is not a matter of just choosing between alternative products and, “oh this game sucks and I have been treated poorly so I am going to move on to the next game”. Unless you can convince all your friends to come with you, that is not a very valid proposition.

The other value involved in social networking is that if you stay inside a community for a number of years, then you build a reputation and status and you would have to rebuild that inside a new game. These social aspects are ignored by always focusing on the property elements inside games and that property is the important aspect. Property is the aspect that is associated with the publication model, but we need to start taking account of the services model and we need to start understanding these things as social with social consequences. One of the results that I see is that we need to have some kind of measure of accountability for the corporations that run these places in their community service management strategies, which are enabled through EULA contracts.

The game I studied is called EverQuest. In the EverQuest end user licence agreement it says they can ban me for any reason that they choose, and I have no recourse to any appeal mechanism. If I play against the spirit of the game, ‘spirit of the game’ is not defined particularly well anywhere – it is a very nebulous kind of concept – I could find myself banned from the game, and lose all my friends and lose all my in-game accumulated wealth. I have nowhere to go to actually appeal that decision, and the consequences for me are not only material, in that I lose the possible real world value of the property inside that game, but they are social. I lose the access to my community. The contracts are becoming the mechanism that determines access to social relations, and that is material that we have not yet really engaged with to any great extent, and something that I hope we soon will engage with.