

**DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INDUSTRY
COMMITTEE FOR INFORMATION, COMPUTER AND COMMUNICATIONS POLICY**

Working Party on the Information Economy

United Kingdom-OECD Workshop on Innovation and Policy for Virtual Worlds: SUMMARY

Paris, 17-18 June 2009

This document summarises the Workshop on virtual worlds held on 11 March 2009, back to back with the ICCP Committee meeting.

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Workshop presentations and background material are on the OECD website:

http://www.oecd.org/document/61/0,3343,en_2649_34223_42316797_1_1_1_37441,00.html

The document is circulated for information and comment.

The Addendum includes possible follow-up work. This is circulated for discussion and options for future work.

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UNITED KINGDOM-OECD WORKSHOP ON INNOVATION AND POLICY FOR VIRTUAL WORLDS

Introduction

1. Virtual Worlds - computer-mediated, online, 'spaces' where groups of people interact - and participative web applications provide increasing opportunities to improve business processes, to accelerate research and to better understand social developments. All of these are of increased importance in the current economic climate. Virtual worlds are trans-national 'places' where educational establishments and enterprises increasingly conduct business, and citizens spend leisure time. They have grown from a niche, game-like application some 30 years ago to a global social and business phenomenon. They are estimated have rapidly increasingly revenues currently exceeding USD 5 billion per year; industry employment is significant and growing and they have hundreds of millions of users.

2. Virtual worlds present a range of emerging social and business opportunities and corresponding challenges to policy makers. Governments are mindful of extracting the maximum benefit and social good from the opportunities which virtual worlds present. Virtual worlds were specifically mentioned in the "Seoul Declaration on the Future of the Internet Economy" adopted by Ministers in June 2008.¹ Ministers invited the OECD to further the objectives set out in this Declaration, through multi-stakeholder co-operation, including by "analysing the future development of the Internet Economy, namely [...] the economic, social and cultural impacts of emerging Internet technologies, applications and services, including virtual worlds, sensor-based networks and social networking platforms". Virtual worlds and possible new forms of collaboration are also of interest in the context of the OECD Innovation Strategy.²

Workshop objectives

3. The workshop was convened in the light of the growing importance of virtual worlds to the social, cultural and economic life of member states; to note the policy and regulatory issues which could help or hinder growth, and to examine, in this context, two emerging areas of interest:

- How can virtual worlds contribute to innovation, to transformation of business, government and public services and to increasing transparency, improving innovative services delivery, and creating employment?
- Should public policy frameworks be adapted to support governments, citizens, and businesses using virtual worlds to improve their performance? If so how?

¹ <http://www.oecd.org/dataoecd/49/28/40839436.pdf>.

² www.oecd.org/innovation/strategy.

4. There were 103 expert participants in the workshop, including ICCP delegates, international industry representatives and government officials responsible for Internet governance and ICT policy. Further information on the workshop, the presentations and information about the ICCP can be found at:

http://www.oecd.org/document/61/0,3343,en_2649_34223_42316797_1_1_1_1,00.html

Summary by the Session Moderators

Mr Bill Graham, Strategic Global Engagement, Office of the President, Internet Society

Ms Kristiina Pietikäinen, Deputy Director General, Communications Policy Department, Ministry of Transport and Communications (Finland)

5. The Session Moderators outlined three key points. First, virtual worlds are real but not well understood, thus policy makers needed to be brave and enter virtual worlds to gain a level of familiarity with them before they formulated policy. What was more, before exerting the power of the state, virtual worlds needed to be carefully examined to see if there are differences that require new policies, regulation or legislation.

6. Second, it was noted that like the Internet, virtual worlds are established but not yet developed – a process that requires a degree of freedom. Additionally, virtual worlds could be another case where global norms work from the bottom up.

7. Third, governments might have a role in promoting and giving permission to the expansion of virtual worlds into the realms of business and ‘serious games’ rather than solely looking to regulate and control the virtual worlds industry.

8. The Moderators saw that virtual worlds like social media raised complex and difficult issues including IPR, harassment, fraud, liability etc. but these were not new topics, simply ones that government and industry must understand in the context of these new environments where the actors and market conditions are not yet familiar.

9. The workshop indicated that what may be needed are regulatory frameworks that support the use of virtual worlds. The key to getting these frameworks correct was understanding what the problems were in virtual worlds and to use a soft-touch regulatory approach rather than seeking to over-regulate beforehand, as there was a danger of attempting to fix something that is not broken.

10. The Moderators suggested that the OECD study this topic more deeply because of the possible potential impact on society and the rules of society which virtual worlds could bring about. The OCED brought together a range of expertise to help understand how different parts of the community can best face these challenges.

11. Suggestions for OECD activities coming from the workshop include:

- A study looking in more depth at the public policy and governance issues which were helping or hindering the growth of virtual worlds;
- Creating an international dialogue based on such a study. This could help codify best practice and enhance adoption while identifying any public policy issues that may need further analysis; either in OECD or perhaps elsewhere (such as in the Internet Governance Forum);

Summary of presentations

Welcome and introduction by the Chair

Introduction to virtual worlds

Mr. Ren Reynolds, founder of the Virtual Policy Network think tank, and Adviser to the UK Government on virtual worlds and social media

12. Mr. Reynolds provided delegates with an introduction to virtual worlds. Virtual worlds could be described simply as online spaces where people could get together and share an experience. While there was still some debate as to what exactly constituted a virtual world, from a technical point of view, virtual worlds were generally agreed to share the following characteristics outlined by Professor Richard Bartle (inventor of virtual worlds) in his book *Designing Virtual Worlds* (Bartle, R., (2003), *Designing Virtual Worlds*, New Riders). Virtual worlds were:

- Shared and persistent;
- Spaces where interactions occurred in real-time;
- Spaces which had an underlying automated rule set i.e. the ‘physics’ which determined how individuals effected change;
- Spaces where individuals were represented within the world.

13. Under this definition, web pages, and by extension social media such as *Facebook*, were not virtual worlds. Nor were multiplayer computer environments such as *Grand Theft Auto*’s multiplayer mode or other games of a similar type played on personal computer or console. This was chiefly because the environments only persisted for the duration of the individual game session.

14. Virtual worlds could be broadly categorized by the ostensible purpose for which they were designed. Under this categorization there were three types of virtual world: Game Worlds (also known as Massively Multi-player Online Role Play Games – MMOs or MMORPGs), Social Worlds and a category that had yet to find a generally agreed label but could be termed Business Worlds. Examples of each type of world included the following:

- Games
 - *World of Warcraft*;
 - *Maple Story* etc.
- Social
 - *Habbo Hotel*;
 - *There.com*;
 - *Second Life*;
 - *Twinity* etc.
- Business
 - *Second Life*;
 - *Olive/Forterra*;
 - *Quack* etc.

15. It could be difficult to categorise some virtual worlds. They could in fact be multi-faceted. For example, *Second Life* could appear in more than one category; game worlds were also highly social spaces and social worlds themselves could include a lot of game play. In some respects it was useful to think of virtual worlds like film or television where it was accepted that film, for instance, may not solely be for the purposes of drama or comedy.

16. In terms of scale, the total number of active (paying) virtual worlds users was currently in excess of 100 million and rising. *Habbo Hotel*, (Sulake), for example, had had over 120 million user registrations. All ages used virtual worlds. *Club Penguin*, (Disney), targeted 6 – 14 year olds and their guardians; *Habbo Hotel*'s users were between 13 and 18; *World of Warcraft* (Activision/Blizzard) had players of all ages. *Second Life* (Linden) was for the 18+ age group only. The average age of a game-related virtual world player was around 26. This person typically held an account for several years. An active player would spend about 22 hours a week in-world. Studies indicated that these hours formed part of normal leisure time and tended to eat into television-viewing time.

17. Virtual worlds represented a set of social practices which were having an increasing impact on the lives of citizens. However, like many emerging technologies, they ran the risk of being viewed under a single policy lens. The challenge for policy makers was that virtual worlds were a highly heterogeneous set whose individual members defied primary categorization. For example, some virtual worlds could be seen as tools which supported e-commerce and business applications such as virtual meetings, product development, data visualization. These worlds might also however have game aspects to their content. Virtual worlds could either be seen from a regulatory perspective as “content” or as a “medium” caught by common carrier or broadcast regulations.

18. Lastly, virtual worlds were also a valuable tool for highlighting pre-existing policy debates. For instance, on the nature of digital identity as presented by avatars; on the ownership of intellectual property; on privacy issues and on wage arbitrage in connection with so-called “gold farming”. Practices in virtual worlds could provide interesting indicators on emerging, real-world, social and work practices. Gaming guilds for example were also fascinating global co-operative structures that provide insights into management. Virtual worlds have also opened up new possibilities in learning.

First Discussion Panel

Questions addressed: how can virtual worlds add value? What do virtual worlds mean in terms of practical applications, how can they contribute to policy making, help businesses to improve performance, and how can they enhance the delivery of, e.g. medical services?

19. This discussion panel explored innovative applications of virtual worlds in both public and private sectors which were providing services to citizens, the public sector and businesses. Panel contributions highlighted the impacts that virtual worlds could have on: international research, collaboration and policy-making e.g. modelling, simulation, virtualisation, scenario-building and evaluation; improving risk-evaluation; and applications in areas such as health, education, the environment and government services. The discussion also looked in general at the broader social good and innovation to be had from wider use of virtual worlds. Finally, the discussion also examined the benefits virtual worlds may have for business e.g. productivity and employment; reducing costs; addressing environmental concerns; and impacts on networking and engaging consumers and users. Practical challenges raised by the application of virtual worlds were also discussed.

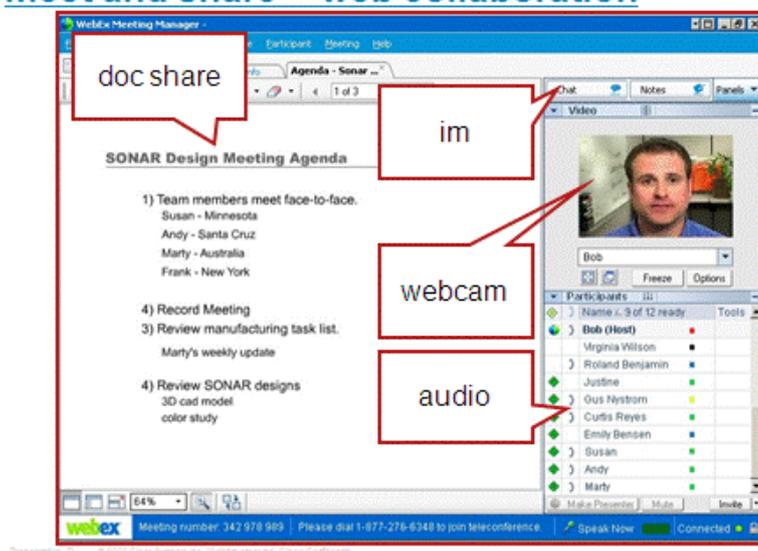
Mr. Bill Graham, Strategic Global Engagement, Office of the President, Internet Society, the moderator of the first panel, introduced each of the speakers.

Mr. Richard Allan, European Director of Government Affairs CISCO and Chair: UK Cabinet Office Power of Information Task Force. (United Kingdom/USA)

20. Mr. Allan stated that CISCO had been experimenting with virtual worlds for about three years and that their work was documented on the CISCO Virtual Worlds blog: <http://blogs.cisco.com/virtualworlds>. CISCO had been using virtual worlds for business process and for engaging customers in four contexts: “meet and share”; “demonstrate and sell”; “teach and learn” and “access and decide”.

21. Mr. Allan noted that virtual worlds have something unique to bring to each of these scenarios if they are employed in the right business context. In “meet and share”, virtual worlds could blend multiple conversations and media into a single event (see slide below). Virtual environments by their nature facilitated communication which could cut across hierarchies, helping organizations make better decisions. When used for “demonstrate and sell”, the 3-D and interactive nature of virtual worlds could bring a rich capability to the remote demonstration of physical items. Games such as *World of Warcraft*, Mr. Allan commented, had a lot to teach us about how virtual environments and features such as quest systems could help us learn.

meet and share – web collaboration

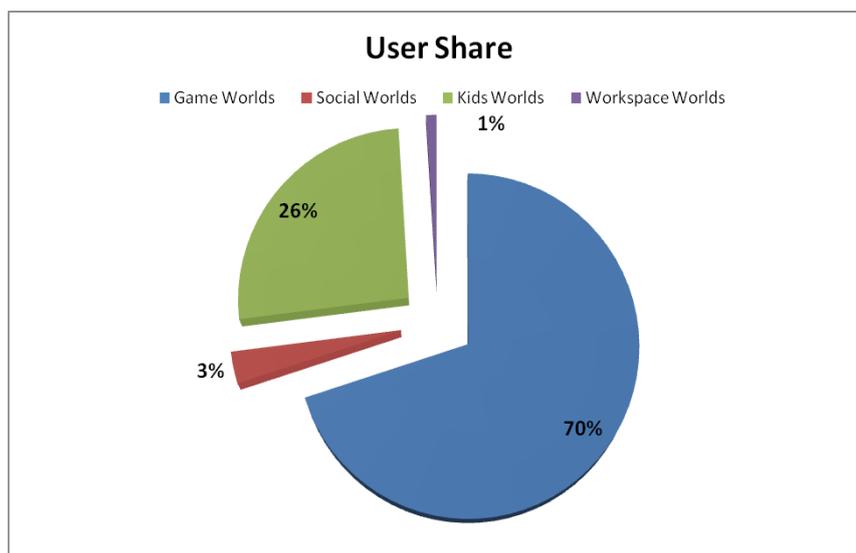


Ms. Jessica Mulligan, COO Imagine Venture SA (Switzerland)

22. Ms. Mulligan defined a virtual world as "a computer-based simulated environment intended for its users to inhabit and interact via avatars" with essentially three market segments: 1. Game Worlds (*World of Warcraft*, *Runescape*, *Dofus*), 2. Social Worlds (Kids, Teens and Tweens Worlds, *Second Life*, *There.com*) and 3. Workspace Worlds (*Second Life* and *There.com* ‘white labels,’ others).

23. She provided an overview of the economic impact and size of the virtual world industry with an emphasis on gaming worlds. She estimated the number of worldwide virtual world paying users at about 126 million, with the majority being in China (59 million), followed by South Korea (25 million), North

America (23 million), Europe (15 million) and South East Asia (4 million). The majority of these users were using Game worlds (70%) and Kid's worlds (26%), whereas a minority is using social worlds (3%) and a very small proportion (1%) is focused on business usage. This trend is even more pronounced when it comes to revenues with game worlds generating almost all revenues (94%) followed by Kid's worlds (4%).



24. Seizing the overall economic value of these virtual worlds is not easy as most available figures relate to game world's online. In the last five years, the online game industry had sustained a 10% - 20% growth rate, with total 2007 online game revenues reaching USD 4.8 billion (of which USD 1.5 billion in China, USD 1.5 billion in the United States of America, USD 0.7 billion in South Korea, USD 0.7 billion in Europe and USD 0.4 billion in Japan). Trends in the industry were towards browser-based virtual worlds and free-to-play business models with either adverts or virtual item sales. Other business models include monthly subscriptions.

Dr. Makoto Yokozawa, Nomura Research Institute and Kyoto University (Japan)

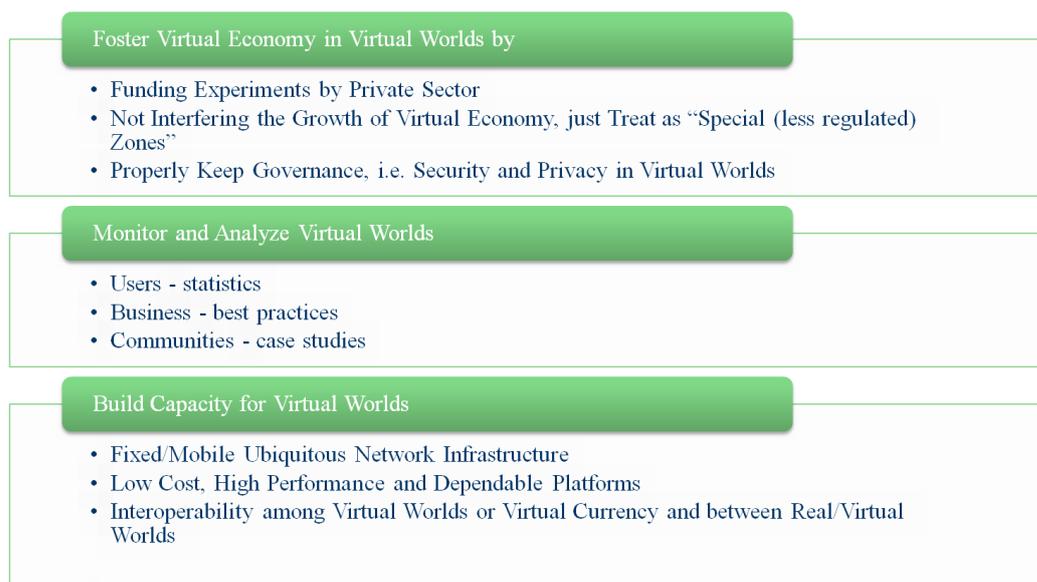
25. Dr. Makoto Yokozawa discussed the use of virtual worlds in Japan. Virtual world use had risen 40 per cent in the last year. According to recent press reports, *Nicotto* was the most visited virtual world in Japan with over 30% of the market. There were over 20 commercial virtual worlds or “metaverses” in Japan. The user group Metaverse Association had been set up in July 2008. Most users tended to be single and under 30.

26. Virtual worlds were used for marketing and other business uses (Virtual Showrooms of Toyota and Nomura Securities). Several Japanese firms are trialling marketing activities in *Second Life* (Nissan “Automobile Vending Machine”, Panasonic Maze, Nippon TV Virtual Studio, NTT Docomo Virtual Showroom). Virtual worlds are also used as Sociological Research Tools and increasingly also for education and job hunting is on the increase in Japan (see next figure). Nomura Research Institute (NRI) itself had ‘SITECUBE’ - a closed virtual world experimenting with (i) Mental care and counselling for cancer patients, (ii) Foreign Language Training , (iii) Virtual Recruit Meeting with Students, and (iv) Teacher's License Examinations.



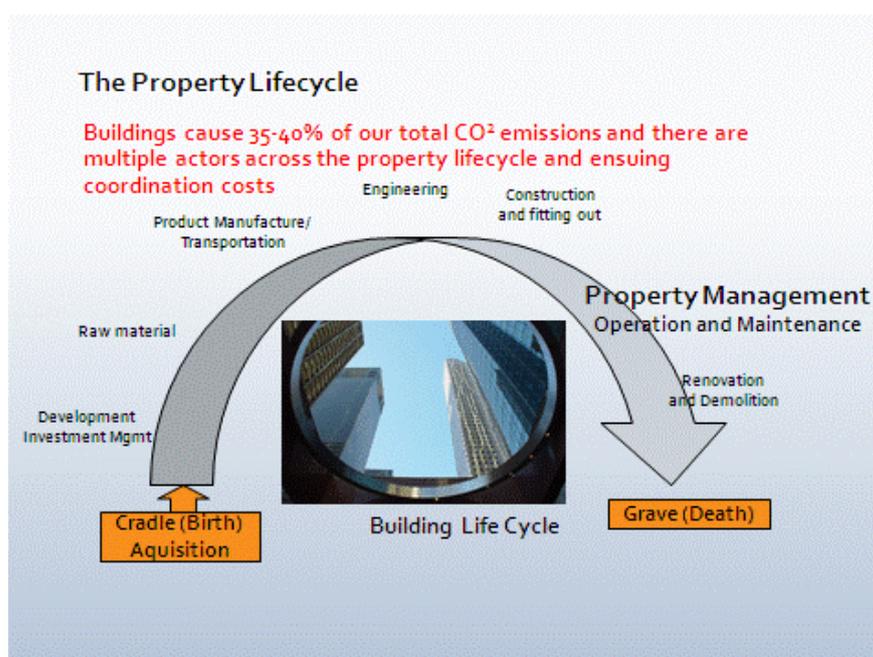
27. The following elements will speed up virtual worlds: “PC to Mobile”-evolution, “Real/Virtual” Convergence – lower barriers for beginners and the development of sustainable business ideas and business models, and the acceptance of virtual currencies. Users are requesting the following from future virtual worlds: interoperability and integration with social networking sites, avatar compatibility between virtual worlds (open avatar), real and virtual synchronised cities, virtual worlds on mobile phones, high performance PCs, more use of virtual money, cross-virtual world currency transfer and virtual to real money transfer.

28. In conclusion, Dr. Makoto Yokozawa, suggested that a policy roadmap (see next figure). According to this roadmap, it would be helpful if funding could be given to experimenting with other uses of virtual worlds. Virtual economies should also be more lightly regulated than real-world zones so as not to hamper their growth. Data privacy, better metrics, the development of enabling technology such as ubiquitous fixed / mobile networks, interoperability and standards were all issues that needed further support and attention.



Mr. Oliver Goh, Founder, SHASPA.com (Switzerland)

29. Mr. Goh talked about the use of virtual worlds in harnessing individuals, communities and service providers to manage the lifetime costs of physical buildings and the built environment (intelligent shared spaces). Buildings cause a great share of CO₂ emissions and the number of actors involved in the lifecycle (see next figure). His company is looking at how virtual environments could reduce the costs of building and property management from the planning stage through design to the in-life building management stage.



30. Smart Buildings will need to emerge which allow for communication from the building to the different actors across the cycle. SHASPA has created a single device in which characteristics of a particular building could be loaded, and which could then be used to virtually and remotely engage and

operate building maintenance systems (measurement, monitoring, controlling, optimizing, documenting and connecting via virtual environments). The device, which could be classified as an EU Energy Pass, could be accessed via multiple platforms, including virtual worlds, mobile, web. Communities stood to benefit in energy conservation terms from devices like this.

Mr. Dave Taylor, Program Lead, Virtual Worlds, Faculty of Medicine Imperial College London (United Kingdom)

31. Mr. Taylor talked about his experience of using virtual worlds for public engagement, science outreach and healthcare. Imperial College were using virtual worlds for a number of research-related purposes, including the staging of events, creating virtual communities, software engineering, simulations and the sharing of low-cost data visualisations and collaborative interdisciplinary environments. This work in virtual worlds was used to provide the evidence base for clinical trials, to aid inter-disciplinary knowledge-sharing; for patient information, to provide professional training and to envision future healthcare services.



32. The faculty used the SciLands area of *Second Life* extensively as a platform. The SciLands – Science and Technology Islands in Second Life (<http://www.scilands.org/>) – was an area run by a community of organizations interested in science education. The community has its own constitution and uses democratic processes to determine things such as placement of areas within the Second Life land mass. Organizations that are a part of SciLands include: *BERR (Future Focus)*; *NPL (Nanotechnology)*, *NASA*, *NOAA*, *CSIRO*; *National Institutes of Health*; *Imperial College London*; *JPL*, *National Space Society*; *Mars Institute*, *Space Studies Institute*; *Caltech*, *EPA*, *DOE*; *Memorial Sloane-Kettering Cancer Center*; *Princeton Institute of Advanced Research*; *University of Denver*, *San Francisco Exploratorium*, *San Jose Tech Museum of Innovation*, *University of Texas at San Antonio* and *North Michigan University*.

33. The advantage of using *Second Life* for health applications was that there were already over 500 patient groups representing over 150 conditions such as: Dementia, Endometriosis, Irritable Bowel Symptom, Muscular Dystrophy and Spina Bifida.

34. Professional events such as the International Virtual Association of Surgeons (April 2008) and the UK National Health Service Managers (March 2009) had been held in or streamed into *Second Life*.

35. Mr. Taylor also highlighted the use of *virtual worlds* to build and film a prototype of future health provision as part of the public engagement strategy pioneered by Professor Ara Darzi. This enabled people to have some of the experience of the possible policy outcomes rather than simply read about them. The group had also experimented with deliberative events. For both these types of uses the team had gathered research data and have quantified positive outcomes of the use of virtual technology.

Address by Mr Tom Watson, MP, UK Minister for Digital Engagement

36. Mr. Watson, United Kingdom Minister for Digital Engagement, welcomed delegates on behalf of the United Kingdom and gave a short address. The Minister said he wished to be an advocate for the use of virtual worlds and Web 2.0 and to work with organizations such as the OECD and the ICCP to face both the opportunities and challenges which these presented.

37. He reflected on the statistics presented by Ms. Mulligan and noted the expansion of virtual worlds in the thirty years since the first prototype virtual worlds had been invented at the University of Essex by Richard Bartle and Roy Trubshaw in the 1970s. Virtual worlds and Web 2.0 put people in touch with each other, with commerce and with government in ways that society could never have imagined.

38. Virtual worlds provided opportunities for groups from around the globe to work collectively to solving complex problems without ever needing to sit in the same room. Virtual world technology literally added another dimension to distributed collaboration. This was crucial during the economic downturn and would have fundamental consequences for the way business was done in future. The Minister quoted Clay Shirky who said, ‘When we change the way we communicate, we change society’. What was key in this time of global economic crisis was for countries to work together. Virtual worlds altered methods of communication and education that would have impacts across sectors – not only in entertainment but even in life-and-death areas such as emergency response, medicine and national defence.

39. Virtual worlds were also trans-national. For the industry, and innovation, to thrive, countries needed to work together on governance frameworks with appropriate safeguards that supported emerging industries and new ways of working; frameworks that met local policy goals in a globalised world.

Second Discussion Panel

Questions addressed included: In a global economic downturn, what were the economic benefits which virtual worlds could usefully provide? What challenges did their governance models have for consumers, business and governments in areas such as: the development of virtual worlds; intellectual property; privacy; taxation and transactions? What could be done to maximise the economic and social benefits of virtual worlds while addressing such challenges?

40. The panel sought to identify key public policy issues and challenges which could be further studied by OECD/ICCP and by governments. It highlighted policies and governance practices that might affect the development and use of applications of virtual world for consumers, businesses and governments.

Ms. Kristiina Pietikäinen, Deputy Director General, Communications Policy Department, Ministry of Transport and Communications, (Finland) introduced and moderated the second panel.

Dr. Melissa de Zwart, Associate Professor in Law, University of South Australia

41. Dr. de Zwart talked about the legal aspects of intellectual property, content regulation and governance in relation to virtual worlds.

42. Intellectual property was the dominant legal model in virtual worlds. This was because virtual worlds had been seen as creations and hence had followed the model of software licensing. Content regulation was now an increasingly important area and one where there was a jurisdictional divide between countries such as US, UK and Australia.

43. Virtual world service providers have often focused on the creation of virtual worlds and have then found themselves, as Sal Humphreys has noted, to be ‘managers of a community’ comprising one area where law and governance meet.

44. Governance stakeholders could be defined as government, service provider or users / players /citizens. The relationship between these groups could be problematic. For example if an issue arose which the service provider did not handle in a way that satisfied a user, then that user may seek redress through mechanisms such as litigation.

45. Dr. de Zwart noted that some countries, such as Australia, had a tendency to want to over-regulate in areas of new technology, particularly with respect to access by children, and this was problematic given the low level of understanding which governments could have about the huge variation in types of virtual world. Yet differences between virtual worlds were key since they could include varying treatment of intellectual property, rights of privacy etc. by service providers and therefore by users.

46. Additionally in the Australian context, classification of virtual worlds was uncertain. Virtual worlds could be regarded as a computer game, so could be caught by the Australian Publications, Films and Computer Games classification scheme. Or they could be seen as Internet content, so could fall under the Broadcasting Services Act 1992. Current regulatory regimes assume a separation between regulation of content (such as games) and of communication (such as chat) – categories which virtual worlds would in fact straddle. An environment such as Second Life, for example, would not be classified as a game, whereas World of Warcraft, clearly would under this distinction; yet both contain large elements of user interactivity and potential for communication, as well as game-play. This uncertainty had subsequently led to boxed add-ons to virtual worlds being removed from sale in Australia because of the lack of official classification. Confusingly, government officials in response to queries admitted their own lack of knowledge as to whether classifications were required.

47. Potential governance mechanisms for virtual worlds included:

- General law
- EULAs (end-user licensing agreements)
- Rules
- Code
- Norms of the particular virtual world

48. The relationship between these different mechanisms could be unclear. For example, in *Blizzard v MDY* (US District Court, 2009), a software program was created to play the virtual world game *World of Warcraft* while the player was not present. This was possible under Blizzard’s code, although opinion was

divided in the virtual world community as to whether this constituted cheating. As Blizzard could not technically stop this programme, they took recourse to law. The courts found that not only was the use of the software a breach of the terms of use of *World of Warcraft*, it was also a breach of copyright. This meant that a whole new set of rights and remedies were open to Blizzard against both the user of the software and the makers of the software – remedies that could have included damages.

49. In another example, in the virtual world *EvE Online* (CCP, Iceland) a player from one in-game alliance defected and disbanded the alliance. This resulted in thousands of hours of effort by other players/users in building in-game assets being lost. Was this a case of cheating? In this case CCP chose to support the action because they wanted to encourage a world where things like piracy are part of the game.

50. In summary it was recommended that regulation must:

- Be sensitive to the particular needs of the relevant virtual world community
- Recognise that not all virtual worlds are alike
- Reflect importance of community norms and enforcement mechanisms
- Reflect diversity of users/individual experiences
- Reflect importance of network as an organising agency

51. Hence governments should:

- Support the development of virtual worlds by creating consistent, supportive frameworks
- Avoid fragmentation of the user's experience
- Require the service provider to have an accessible, transparent Terms of Use

Mr. Viktor Mayer-Schönberger, Professor of Public Policy, Lee Kuan Yew School of Public Policy, National University of Singapore and Director, The Information-Innovation Policy Research Centre (Singapore)

52. Mr. Mayer-Schönberger's presentation focused on virtual world governance and virtual worlds as regulatory markets. One key message he wanted to communicate was the limited extent to which virtual worlds could be regulated.

53. Writers about virtual world regulation usually assumed that there was a simple relationship between users, a virtual world provider and a regulator. In reality, multiple users had relationships with multiple virtual worlds which in turn had relationships with multiple regulators.

54. One outcome of this was that users could exercise choice around virtual worlds and regulatory regimes. Additionally, virtual world operators could also choose to switch their operations from one regulatory environment to another. This was different from traditional manufacturing. Furthermore, the switching costs for the individual in moving from one regulatory environment to another were reducing as technical changes such as interoperability of ID's become more prevalent.

55. The consequences of this were:

- Users/providers may arbitrage out of regulatory regimes; thus real world regulators would lose the power to regulate directly;
- The ongoing competitive dynamic between providers might lead to political pressure on regulators to reduce regulatory burdens (and thus lower the incentive for providers/users to exit).

56. There were some possible remedies for these situations:

- Reduce leakage: virtual world operators could reduce leakage by stopping real money transactions for virtual assets. However, so far every attempt to do this by virtual world operators had failed;
- Coordination: regulators could form international agreements between themselves. This would create a level playing field for regulation, out of which virtual world providers could not then arbitrage. However, this was difficult as there were a number of issues, such as freedom of expression and privacy, on which States did not agree;
- Meta-Regulation: power could be delegated by States to a meta-regulator.

57. A general problem existed with all these counter measures. They assumed that providers existed and that regulation could operate on them. It was true that regulators could currently act on these choke or control points, but these actions brought with them the danger that peer-to-peer-like systems would come to prominence. This might mean that the ability to regulate could be lost for ever.

Mr. Patrice Chazerand, Secretary General, Interactive Software Federation of Europe (Belgium/France)

58. Mr. Chazerand's presentation explored the subject of online business model development and whether governance issues for virtual worlds differed from those involving online games.

59. A survey of 90 online games had revealed that there were four business models:

- Game purchase, paid subscription
 - e.g. *World of Warcraft* where the box cost about \$50 USD and the monthly subscription about \$15 USD;
- Game purchase, free subscription
 - This model was rare and only NCSOFT seemed to employ it;
- Free game, paid subscription
 - This constituted about one-third of the market;
- Free game, free subscription
 - This was the main growth area of the market.

60. Mr. Chazerand cited Professor Richard Bartle's description of governance relating to virtual worlds. In this model, those that ran virtual worlds were 'gods' in that they had absolute power over the game that they had created. An online game provider also had the power in theory through the end-user licence agreement (EULA) to rule a game including excluding players if necessary.

61. In practice, however, governance was more complex. For example, an adult who had bought three accounts but was unhappy about the server to which they had been allocated. This appeared on the surface to be an issue of child protection. However it turned out that the adult, a father of two, had bought the accounts for himself and his two children so that he could play against the children. This was in breach of the rules of the game regarding account / role play. Agreeing to an exception would have thrown the game out of balance and so it was not allowed.

62. A second example concerned the general issue of exclusion. While EULAs enable those who ran an online game to exclude people whom they did not think were appropriate (and they were therefore expected by some to do just that), the October 2008 guidelines of the Council of Europe put more emphasis on freedom of expression, thus making the decision more complex if perhaps fairer.

63. Mr. Chazerand highlighted the shift which was occurring for online games companies in having to move from creating an online games product to managing an online community. These required very different skills. He believed there was a case for public / private partnership when it came to regulation. That was a mixture of hard and soft power to produce ‘smart power’ and ‘smart regulation’. This was the stance that had been adopted by the Council of Europe in its recent work on online games.

64. Many countries already had forums which brought together civil society, government and industry. In France for example, there was the Forum for Rights on the Internet, which had created a grid to categorise content on mobile devices and had also created a website for education about games and online games. Similarly, the UK now had the Council on Child Internet Safety. To make the most of these types of multi-stakeholders initiatives at national level, more ways should be found to identify and enhance synergies and combine them in an effort to produce common substantive proposals which could be brought to fruition at regional or global level.

Mr. Ren Reynolds on behalf of Mr. Chris Francis, IBM’s Head of Government Programmes

65. Mr. Chris Francis, IBM’s Head of Government Programmes, was unable to attend due to illness, and asked Mr. Reynolds to speak on his behalf. The presentation addressed governance challenges for businesses using virtual worlds internally and externally, as well as jurisdictional liability issues.

66. Using virtual worlds in business raised (r)evolutionary issues:

- Was this playing a game or doing business?
 - Business was using technology and services developed for a different purpose;
 - Consumer, rather than enterprise or public sector perspectives, dominated;
 - Were new facilities needed? And were there some that should be changed or disposed of?
 - What norms, such as virtual world avatars wearing business attire, should be followed?
- The pace of innovation regarding virtual worlds was immense – and cheap enough to ‘play’ with:
 - Immediate commoditisation;
 - Low barriers to entry;
 - Global presence from day one;
 - Perpetual ‘beta’ environment.
- An exciting opportunity for competitive advantage and a major challenge for businesses to keep ahead of the pace of change.

67. Virtual worlds are currently complex regulatory spaces for all who sought to use them. For example, if a person gambled online as a UK citizen on virtual land with a German citizen, did the fact that any part of this activity was located on a server in a particular country and therefore subject to a specific tax or licensing arrangement make any difference to the individuals? How are they supposed to know?

68. Virtual worlds have managed to create and combine an amazing level of functionality. If nothing else, virtual worlds should be considered as the test case for convergence thinking and policies.

69. Policy issues which virtual worlds raised included:

- Data privacy – to what extent could a person accept that their data, their activities, their identity, would be dealt with confidentially? What about activities of a different order with a virtual world, such as banking or telecoms?
- Data retention – to what extent is a person’s data actually allowed or even required to be kept for a period of time and to be subject to interception?

- Banking, e-money – is the regulator for a particular jurisdiction responsible or the virtual world provider? To which countries do e-money rules apply?
- Consumer law – are transactions conducted via a virtual world to be regarded as distance selling, personal imports or commercial exports? Are these instances situations where buyers must beware or do users have consumer rights? Are these transactions subject to import tariffs?
- Human resources – do activities by businesses in virtual worlds affect their diversity policies or accessibility issues? Should businesses worry about new ‘racial’ issues arising from virtual world usage e.g. furies (an avatar type in a number of virtual worlds)? If businesses are employing someone in a virtual world environment, do they need to ensure they pay income tax?
- Intellectual property rights – many billions of intangible virtual assets were being traded in social virtual worlds. The legality of the licensing arrangements for these IP assets could be unclear and was often driven by ‘game’ or ‘world’ mechanics rather than by explicit licenses. Issues raised included:
 - Who owned these creative rights?
 - In which countries do “fair use” doctrines apply?
 - The combination of copyright, design and trademark issues;
 - Licenses being used in unexpected ways – e.g. how does a GPL virtual building work?
 - Do businesses need to worry about the use of ‘business process patents’ as emerged in e-commerce in the US?
- Telecoms or electronic communications services – further policy issues were raised by the increasing inclusion of services such as voice over IP (VoIP) and group teleconferencing inside virtual worlds. These activities could be subject to state monopolies in some countries. VoIP was also illegal in many parts of the world.
- Audio-visual – the increasing use of audio-visual streams inside virtual worlds presented interesting issues. The virtual world itself was an audio-visual stream. A virtual world event was inseparable from the ‘broadcast’ of the event in a way that often broke current performance rights practices.

70. A common response to many of these issues has been to limit a service so that greater control could be exercised over it. For example, the use of a ‘pocket universe’ such as OpenSim which could be closed (to the public) and controlled. Another approach was to use a hybrid solution such as IBM’s recent experiment with Linden Lab to combine a ‘behind the firewall’ version of *Second Life* with the public version. This provided some of the advantages of being connected to the public *Second Life* with the added security of control over content. IBM had successfully used this hybrid approach in staging the IBM Academy of Technology Virtual Worlds For Business event which involved more than 150 participants over three days and was found to be highly time, cost and environmentally efficient.

71. The benefits of virtual words would only be realised through their continued usage. Useful experiments involving virtual worlds could be conducted in the following key areas:

- Meetings, to measure:
 - travel displacement;
 - increased productivity.
- Education, to facilitate:
 - better use of expert educators and specialists;
 - the addressing of shortages of key STEM teaching disciplines;
 - lifelong learning;
 - ‘at desktop’ advantages combined with real-time tutor groups and interactive and peer to peer support;

- simulation of what would otherwise be expensive (real-world) experiments, experiences or field trips.
- Communication
- Collaboration

Summary by the Chair

Mr. Richard Simpson, Director, Industry Canada and Chair, OECD ICCP Committee

72. Mr. Simpson gave a concluding summary of the main points which had been raised during the workshop. First, virtual worlds had huge economic and social potential in areas such as education and healthcare as well as potential for business. Second, the difficulty in knowing what virtual worlds actually were raised the question of whether it was possible to deal with them effectively until they were better understood. Third, whatever virtual worlds turned out to be, they should not be subject to over regulation. Moreover, he noted that there had been a strong consensus among the day's panel members that governments should apply the principle of doing no harm to virtual worlds, avoiding multiple layers of regulation and maintaining instead a regulatory light touch. If governments got this wrong, as the panels suggested, they would miss out on some of the benefits that virtual worlds could bring.

73. In response to these points, Mr. Simpson suggested that governments did not need to define virtual worlds as they were not one single thing, but many things that happened to occupy a certain technical space. In certain respects, as the workshop had also indicated, there was 'nothing really new' about them. Countries and policymakers should develop a functional understanding of virtual worlds and in public policy terms maintain a technologically-neutral approach as has already been applied by OECD members to the Internet. This would sidestep many of the questions of how much to regulate as it recognized that laws were already in place. Thus the question was rather how much do they apply to virtual worlds? For example, if something occurred which was taxable, there will be a regime that should apply. If something unlawful occurred, then current laws should apply. As the workshop had noted, virtual worlds could be seen as content, as a medium and as a public meeting space. Members had laws which already applied to all of those. In conclusion, members should not seek to regulate the technology but look instead to a light touch regime.

74. Mr. Simpson noted that virtual worlds were boundaryless. This was an important issue, since it made virtual worlds an ideal subject for the OECD to study, with its role of policy co-ordination and harmonization. Hence the OECD should apply to the topic of virtual worlds the principles and the pioneering role it has had in the past.

75. The 2008 Seoul Declaration had identified virtual worlds as one of the areas which the OECD should examine in its work on the Internet economy. This workshop has been valuable in initiating that work and would provide a good data source. As the workshop had pointed out, virtual words were not a wholly new policy area, but one which called for a renewal of the work that has been undertaken in looking at Internet policy. This was not to say that although there may be no new policies, but the work of examining virtual worlds needed to continue in the context of policy implications for the wider Internet. This work should be continued by the OECD, other inter-governmental forums such as the Internet Governance Forum (IGF) and non-governmental bodies such as the Internet Society.

ANNEX 1. AGENDA



OECD Committee for Information, Computer and Communications Policy

**United Kingdom-OECD Workshop on
Innovation and Policy for Virtual Worlds**

How can virtual worlds contribute to innovation, to transformation of business, government and public services and to increasing transparency, improving innovative services delivery, and creating employment?

Should public policy frameworks be adapted to support governments, citizens, and businesses using virtual worlds to improve their performance? If so how?

14:30-18:00, 11 March 2009

OECD Conference Centre
2, rue André-Pascal, 75016 Paris, France

Meeting Chair:

- **Richard Simpson** (Chair, ICCP Committee),

14.30-15.10 Opening and introduction to virtual worlds

Speaker: **Mr Tom Watson**, MP (UK Minister for Digital Engagement)

Speaker: **Mr Ren Reynolds** (Virtual Policy Network, UK)

15.10 – 16.10 **Panel 1: Innovation in private and public sector application of virtual worlds**

Moderator: Bill Graham, Internet Society

Speakers and issues:

Richard Allan, Cisco (How firms use virtual worlds internally to enhance innovation, improve productivity, and reduce costs, and externally to engage customers more effectively)

Jessica Mulligan, ImaginVenture (Virtual worlds as an industry; industry size, business models)

Makoto Yokozawa, Nomura Research Institute, Japan (Applications of virtual worlds in Japan)

Oliver Goh, Shaspa (Virtual worlds, real buildings and sustainability)

Dave Taylor, Imperial College, London (Health applications of virtual worlds; engaging young people on science subjects inside virtual worlds)

16.30 – 17.40 Panel 2: Policy and virtual worlds

Moderator: Kristiina Pietikainen, Ministry of Transport and Communications, Finland

Speakers and issues:

Chris Francis, IBM (Policy and governance opportunities and challenges in adopting virtual worlds)

Melissa de Zwart, University of South Australia (Intellectual property, content regulation and governance)

Viktor Mayer-Schönberger, National University of Singapore (Virtual world governance; virtual worlds as regulatory markets)

Patrice Chazerand, Interactive Software Federation of Europe (Business models and governance; self-regulation vs. co-regulation)

Jessica Mulligan, ImaginVenture

17.40-18.00 Concluding remarks and possible next steps

OECD: Richard Simpson

ICCP Delegates, stakeholder representatives.