

# Editorial: Living in virtual reality

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The Internet is merely a medium through which people transmit information to one another. Nevertheless, as with other communication media, its use clearly has implications for society. The horse, ship, railroad, carrier pigeon, telegraph, telephone, radio, aeroplane, television, telex and facsimile each played its part in transforming society, connecting people, transporting goods and distributing information. So too will the Internet.

The Internet connects hundreds of millions of computers, from Beijing to Basra, and from Cape Town to Cape Cod. Files on these disparate machines are accessible in such a way that key characteristics<sup>1</sup> may be rapidly and efficiently identified. As a result, the Internet enables the formation of 'virtual' (that is not location-specific, existing only or primarily 'online') communities, virtual corporations (including banks and shops), and virtual currencies, as well as providing the capacity for very broad-based searching amongst all these virtual entities.

This edition of *Economic Affairs* explores some of the economic and social aspects of the Internet: how it will affect our money (Catherine England); how it will affect our tax systems (Fred Smith); how it is governed and what this implies for us (Gordon Brady and Chris Ellison); and its implications for human freedom (Rob Killick).

## Virtual money

Catherine England tackles the claim that the Internet will lead to the emergence of online currencies. 'Netheads' will already be aware of the existence of pure e-currencies, such as Beenz ([www.beenz.com](http://www.beenz.com)), Ipoints ([www.ipoints.com](http://www.ipoints.com)) and Mypoints ([www.mypoints.com](http://www.mypoints.com)). At present these are essentially online loyalty schemes: Beenz etc. are awarded according to the amount of money and/or time spent at participating websites, and may then be used in lieu of cash at those or other participating sites. Eventually these currencies could become fully convertible (literally usable as money for any online purchase), at which point they might supplant real-world currencies for online transactions.<sup>2</sup>

However, Dr England argues that states will resist this move by attempting to regulate these currencies. But as with other attempts to regulate the Internet, this is unlikely to be successful. One reason is that the operators of such currencies can simply move offshore, escaping the jurisdiction of the state. Another reason is that, when combined with strong encryption, transactions in online currencies are

almost completely invisible to the state. As a result, such currencies are not only likely to supplant state money, they are also likely to undermine the state's tax-raising powers.

## Virtual tax

The capacity for avoiding payment of tax is a threat to governments, which are naturally concerned that one of their primary sources of revenue will evaporate. Their response has been to contemplate taxing all Internet transactions. However, as Fred Smith observes, taxing the Internet is fraught with difficulties and, in any case, taxing the Internet will simply drive the commercial activity to another jurisdiction, where there is less or no taxation. For many years the benefits of tax havens, such as the Cayman Islands and Jersey, have mostly benefited the rich. Now the Internet is bringing these benefits to a much broader group of people. Setting up an Internet site in a tax-free zone means the users (wherever they are located) need pay no taxes so long as there is no visible and traceable sign of the transaction. So for items that are purchased in an online currency and that can be downloaded direct to the purchaser's PC in an encrypted form, it is almost impossible to impose a sales tax. People who are paid in an online currency likewise are more or less immune to income tax.

## Virtual law

One question this raises is who has jurisdiction in virtual reality? To date, states have tried hard to impose their authority but with little success. In the US, the government attempted to prevent the dissemination of Phil Zimmerman's Pretty Good Privacy (PGP), a system for electronically signing and encrypting information. It claimed that PGP could be used by terrorist organisations and was thus a threat to national security. It even threatened to prosecute Zimmerman – but failed because he was able to publish the code in book form, which was protected by his First Amendment right to free speech. In any case, the code had by this time already been disseminated outside the US (and was no doubt being used both to beneficent ends by individuals and organisations working to overthrow repressive regimes, as well as to malevolent ends by terrorist organisations). The moral of this story is not so much that states cannot impose their authority on the Internet but that any attempt to do so is likely to be counterproductive. As Fred Smith observes, attempting to tax online transactions is

likely to slow the development of e-commerce, which may reduce overall tax income (since evasion of such a tax would be widespread and people engaging in e-commerce would change jurisdictions). Likewise, if the state attempts to regulate online providers of currency (rather than merely compete with them), it is likely to drive those providers offshore, reducing the welfare of citizens within its jurisdiction.

David Post has suggested that given the geographically dispersed nature of the Internet, the state is not an appropriate jurisdictional entity for the virtual world.<sup>3</sup> A superior system of law for the Internet is already emerging through a web of self-regulatory norms. Internet Service Providers (ISPs) impose restrictions on the actions of those who contract with them, limiting their ability to send offensive or abusive e-mails and 'spam' (junk e-mail), and limiting what they may upload to their websites. Disputes are settled through arbitration, which is typically specified in the contract and is considerably cheaper than the law courts.

#### **Virtual regulation**

Chris Ellison argues that such self-regulation is not necessarily better than government regulation – especially in the case of the Internet, where government regulation is largely impotent without the express support of the ISPs, the companies that provide access for the majority of domestic Internet users.<sup>4</sup> In some circumstances, self-regulation is driven by a desire to avoid government regulation. In others, the threat of government regulation is superfluous and the primary concern is to avoid the whimsical complaints of moral elitists, who might otherwise go crying to the media.

This may be true but there are surely counter-arguments. First, I suspect that there exist and will continue to exist ISPs who are willing to give their customers more freedom to speak their mind than the oppressive ISPs Chris describes. If nothing else, the declining cost of bandwidth will mean that millions of individuals will soon have fixed-line connections to the Internet, which they will be able to use to display whatever material they choose and to e-mail whomsoever they want.<sup>5</sup> Nevertheless, for the moment, the majority of people who sign up with an ISP will be subject to some serious and often arbitrary restrictions on what they may say and do in the virtual world. This is a serious problem for those who claim that the online world is a world of pure freedom. But perhaps a world of 'pure

freedom' is not one that most of us would want to live in.

#### **Virtual life**

In the very near future it is likely that we will be able to get most of our current reading matter in digital form – downloadable to electronic paper, which, we are being told, will read just like normal paper. Goodbye books: why spend £6 on a paperback when I can download it for £3? Goodbye newspapers: why have the inconvenience of going to the newsagent, or the cost of the paper delivery boy, when I can download the news and features I am interested in to my e-paper pen whilst I walk to the Tube?

Of course, in the meantime the publishing industry will have to discover a means of protecting its intellectual property.<sup>6</sup> A similar problem plagues the music industry, which is already moaning about the impact of the compression standard MP3 on sales of CDs (and, as Chris Ellison notes, one music distribution company even took the manufacturer of an MP3 player to court). But dissent is not unanimous: Sony is now producing its own MP3 player. No doubt a solution will be discovered – but not perhaps before the current structure of the industry is overturned.

#### **Virtual government**

The Internet will produce winners and losers. The losers will be the tax authorities, the moral authoritarians and the owners of companies with redundant capital, such as real-world bookshops, record shops, publishers and producers of CDs.<sup>7</sup> The winners will be consumers, entrepreneurs and libertarians who seek to overthrow oppressive regimes.

With the prospect of such dramatic change, the challenge for incumbent organisations is enormous. One false move and your company is dead. Many companies have responded by trying to garner the power of the state in their favour – before that power is nullified by events. Even within the Internet industry itself such 'rent-seeking' has had dramatic effects.<sup>8</sup> When Microsoft decided to embrace the Internet with wild abandon, many observers thought it would be too little too late. When it turned out to be just in time, and well executed at that, Microsoft's competitor called 'foul play.' Never mind that the competitor, Netscape, was a multi-billion-dollar enterprise that had previously commanded a virtual monopoly position in the browser market. Never

Living in virtual reality mind that Microsoft had done nothing more than offer its browser for free.

### Virtual liberty

Similarly, the state's authority and capacity will be seriously compromised. As noted above, taxation of online transactions, especially where the goods are delivered online and payment is made in the form of online private money, will be nigh-on impossible. So governments will have little option but to raise revenue from whatever visible items remain, such as taxes on sales of groceries, poll taxes and property taxes. The first of these is extremely regressive – it hits the poor hardest (because groceries represent a larger proportion of their spending) and is therefore socially and politically unacceptable. The second option too has proved to be socially unacceptable and would now be politically difficult too. So, all that will remain is property taxation. Since the amounts of money that can be raised from property will be small relative to the size of the current budgets of governments of most developed countries, it is likely that we will see a gradual transition to a world of less government. States will most likely begin by selling off the services that provide predominantly private goods, including income and health insurance, as well as secondary and tertiary education. They will then move on to the more public-like goods, including primary education, police and defence. Contrary to the scare stories of William Gibson and others, virtual reality begets a real world of individual liberty and limited government.

Of course this might all be scuppered by the state. But if the analysis here is more or less correct, the only way it can do that is with a global government. Now there is a scary thought.

<sup>1</sup> Specifically, the 'meta tags' in HTML files. HTML was invented by Tim Berners-Lee and it is this invention more than any other that has enabled the widespread use and commercialisation of the Internet.

<sup>2</sup> If demand exists, such online currencies might also be used in the 'real' world, through the use of a card capable of holding and transferring encrypted digital cash.

<sup>3</sup> David G. Post (1995) 'Anarchy, State and the Internet: An Essay on Law-Making in Cyberspace,' *Journal of Online Law*, article 3 (<http://www.law.cornell.edu/jol/post.html>).

<sup>4</sup> For the purposes of this introduction I make no distinction between ISPs and online service providers (see Gordon Brady's article for a discussion of the difference).

<sup>5</sup> This will of course cause problems: I am already subject to an enormous amount of 'junk' e-mail and this is only likely to increase as the costs of access fall. Nevertheless, this seems to be a price worth paying for the preservation of the freedom of speech (and of course, I will defend myself by setting up null mail accounts that can fill up with junk and send irritating reject messages to the sender, filling up their disk drives).

<sup>6</sup> No doubt a clever person will develop a means of restricting the readability of individual downloads to the person who downloaded it. Perhaps a retinal scanner will be incorporated into the e-paper and the download will be encrypted with the retinal fingerprint of the purchaser. Perhaps every publishing house will follow in the footsteps of *Encyclopaedia Britannica* and offer almost everything for free. (Bar the final few pages of the novel, perhaps, which can only be read online for a whacking fee through the publisher's proprietary software.)

<sup>7</sup> It is worth noting that in late 1999 Sony, the co-developer of the CD, was preparing to sell off its CD manufacturing division, having apparently accepted the inevitable and relatively quick demise of this format for distributing music and film.

<sup>8</sup> Rent-seeking is the process by which private individuals and companies attempt to garner for themselves the benefits, or 'rents,' that accrue from state intervention. Rent-seeking inevitably results in rent dissipation as some part of the rent is used in attempts to suborn public officials. The rents themselves are often smaller than the costs that are imposed on the public, in the form of higher product prices.