

Assignment 3

The Internet as Social Technology

What can the Internet teach us about the relationship between society and technology? Discuss, illustrating your argument with examples drawn from either the socio-cultural, political or economic issues covered in module 3.

Name: Beau Lebens
Student Number: 09918322
Unit Name: NET 12
Email Address: beau@dentedreality.com.au
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Social Technology, Technological Society?

A technological determinist would say that 'technology will take us places', while a social determinist might have other ideas about how society will shape technology to its own purposes. The reality, as is often the case when considering polar views, is most likely somewhere between the two. Technology appears to act as a catalyst in social developments. Society develops new technologies to meet its own needs, which then allows that society to change, thus driving the requirements for new technologies. History has shown us a number of technologies that have been created by a social need, which have then turned back on that society and changed it to something new. Developments such as the telephone, electricity, even hot water have changed the way we live forever, but perhaps the most influential technology of the current era at least, is the Internet. This essay will explore some specific examples of technologies which were created by society, but which perhaps now influence it, as much as it influences them. It will examine mobile phones and their current uses, a change in our economies towards transactions based on attention, and the online success-story of eBay (<http://www.ebay.com/>) – “The World's Online Marketplace”. Through all of these examples, it will explore the relationship between technology and society, and the ways in which they interact.

Technology and society are happy to exist in a self-perpetuating relationship where society drives new technology, which changes society and leads to new requirements for technology. We see this relationship every day in things like cars (with advances such as air-bags, becoming an expected feature in new vehicles), mobile phones (changing the way we interact, and the way we expect to be able to contact people) and even hot water systems, which are a form of technology that clearly changes the way people live their lives if they are lucky enough to have it. Changes in the way that we do business and operate in an economic sense are not immune from the effects of new technologies, as demonstrated by changes in the way that credit cards are being used online, developments in technologies like smart cards and moves towards biometrics and geographically-aware systems to improve security and levels of service. All of these examples are of technologies that have, or will, change the way that we interact with each other and other technologies.

With a growing requirement for people to be contactable, no matter where they were, the development of something like a mobile telephone was inevitable. For a brief time we saw paging devices taking a firm hold on the 'always available' market, but widespread adoption of mobile technologies in the 90s led to them becoming cheap, accessible and reliable to a point where there was no reason to continue with the asynchronous capabilities of a pager when you could have completely synchronous, always-on communication with a mobile telephone. The most immediate and obvious change from this advance was that we started seeing people walking around the streets talking into boxes that they held to their ears. They were, of course, talking to people at the other end of a wireless telephone connection, which was something that had never been done before. This provided the 'always-on' availability that serious business people required, and meant that no matter where they were, they were available for communications which required immediacy. It wasn't too long though, before people started realizing that mobile phone technology wasn't only useful for business people, but that there were other applications just waiting to be explored.

Now, we see mobile phones being used by parents to keep tabs on their children, by children as a security device (out late, can't get home? Call Mum and Dad and get picked up), by people from all walks of life as an organizing device, and by an emerging culture of users as the foundation of a new form of commerce labelled mobile commerce, or m-commerce for short. In *Smart Mobs*, Rheingold (2003) discusses "the next social revolution", fuelled by technologies such as mobile phones and personal digital assistants (PDAs), which are allowing people to interact in ways never before possible – changing the face of human social interaction as well as daily economic activity. Schenker notes that "Finns already use mobiles to pay for passport photos, golf balls... and soft drinks from vending machines" (2000), something that the original inventors of mobile phone technology probably never foresaw when they were designing nothing more than a portable version of the desk-bound telephone. Now, through their permanent, portable Internet connection, people are receiving their email, getting details of a restaurant they are standing outside of and checking their compatibility with someone they just met based on their horoscopes (Rheingold, 2003).

Changes in the way that we are using mobile technology are leading to a constant revision of both the technologies involved and the people using them. We are now

seeing a wave of mobile handsets equipped with still and video cameras, radios and digital music (mp3) players. These changes are in turn leading to more social changes, such as the restriction of the use of mobile phones in change rooms and other private areas due to potential privacy issues related to the cameras in these devices. Clearly society drove the development of mobile technology, but now it is in turn driving developments in social practises, norms and even laws in some countries.

In this blossoming 'Information Age', many people believe we are also developing an information-based economy. Goldhaber on the other hand, believes that "everyone has always lived with some degree of an attention economy, but through most of human history it hasn't been primary" (1997) and now it is coming to the fore. In Goldhaber's 'attention economy', we trade attention instead of information, since he argues that "economies are governed by what is scarce" (1997), such as attention, while we are continually flooded with information, which therefore loses its value. He argues that with the widespread adoption of the Internet and in particular the Web, along with the massive move towards an information-based society, attention is the scarce commodity that we can selectively trade for gain in the online world. Goldhaber states

...the ethos of the old economy which makes it often bad taste or a poor strategy to consciously seek attention seems to be giving way to an attitude that makes having a lot of attention rather admirable and seeking it not at all to be frowned upon. Think of the sorts of things people are now willing to admit about themselves just to get on the likes of Oprah or the Sally Jesse Raphael show.

This statement clearly ties changes in society to the changes he foresees in the technology which is required to support his 'attention economy'. The economic models behind 'buying' attention already exist all over the Web. The most popular model was previously a 'per impression' system, where payment is based on the number of times an advertisement is served up to, or viewed by, a customer. Now we are seeing a shift towards a 'per click' model, where payment is based on the number of people who are successfully engaged by an advertisement and click on it for more information. The 'per impression' rate is clearly modelled on the real-world equivalent, which is simply a matter of paying for advertising in a prime location, where it is seen as much as possible – paying for 'eyeballs' as Net-marketers would call it. The interesting thing to note here is

that there isn't really an offline equivalent of the 'per click' model – it is too hard to quantify that sort of thing in the analogue world.

Can an entire economy be based on nothing more than the transfer of attention? Goldhaber believes so, but he has his critics. Ghosh replies to Goldhaber's attention economy in *Economics is dead, Long live economics* (1997), where he basically states that although Goldhaber may well have predicted a major shift in the way that society is involved with itself economically, he has ignored the fact that he is still talking in traditional economic terms, which appear to require (or at least, not to preclude) the use of a token-based exchange system such as money. In his conclusion, Ghosh decides that even 'attention economy' is a better name than other proposals for the new economy (such as 'information' and 'knowledge'), but that it still falls short. He proposes a 'human economy', but recognises that all economies are related to human activities, so "perhaps the simple term 'economy' is still the best". This conclusion raises an interesting point, since Ghosh has reasoned himself back to a known point – perhaps the changes coming are not that significant, they are just another variation in our traditional economic model.

Whether we are moving towards an 'attention economy' as Goldhaber would have us believe or not, what is happening today? There are organizations profiting from more traditional revenue streams, albeit with improved technical facilities and capabilities. In some cases they are even reviving models that were almost dead in most fields, making these models enormously profitable for them, and enormously popular for their customers. eBay is one of the most popular success-stories of online commerce, and they have taken the world by storm with their simple approach – provide a platform for connecting buyers and sellers, let them take care of everything in between and then take a small cut of every transaction.

eBay has brought back the auction model and applied it to just about everything you can imagine. You can literally buy anything from customised candy wrappers to a car on their online auction platform, which has revived and enhanced the old auction model so that it can support thousands of potential buyers, and anyone can quickly and easily become a seller. This really is a global marketplace, with a quick search revealing products from all

around the world, all of which are equally accessible to a bid from anywhere else in the world (providing the seller is willing and able to ship the item internationally).

Purchasing like this, one individual to another, potentially across the world and with no way of knowing whether you are going to get what you think you are getting or not – there are some questions of trust to be answered. Clarke talks about “[t]rust in [c]yberspace” and “eligibility authentication” (1998) as being important to successful online commerce. So what has eBay done about these factors? They introduced a system that allows buyers and sellers to rate each other; giving a simple positive, negative or neutral rating to someone they have either purchased from or sold to. The total of these ‘votes’ is displayed as an ‘eBay ID Card’ against a user’s profile, so that if you are selling, you can see a person’s track-record on other purchases, and if you are buying, then you can see how this person has gone with other sales. This very social aspect of the system makes it reasonable to trust someone you have never even heard of before, let alone met, sending them your money before you have received anything in return. If it weren’t for the nature of the humans using the system, this element would not be required, so it is a perfect example of society driving technology, while on the other hand, you have the technology driving whole new businesses which are based entirely on eBay. There are a growing number of ‘traders’ who are trading in goods via the eBay system; they are buying and selling to make a profit, in a way which has never been possible before now.

These changes in the way that we interact and do business with technology and with others around us are clear indicators of both the effects that we can have on the technology developed, and the effects that that technology can have on us. Looking at some of the more popular examples of technology interacting with society shows us a relationship which seems to run in both directions, if not somewhat more towards society shaping the technology it requires to achieve its own goals. With the number of people online growing daily, there can only be more changes in the way that we deal and live with technology. If it is going to be as major a part of our lives as it seems to be, then it will need to fit in with that life, which will mean that society is always going to shape technology at least to some extent. The important thing to consider in the future will be whether or not society is capable of determining its own future successfully, or whether it

will get carried away with 'techno-lust' and destroy itself in such apocalyptic foresights as those seen in movies such as 'The Terminator' and 'The Matrix' series.

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