**DQ1:Future**

‘In the future information society, the haves and the have not’s will be defined by whether they have access to a quality Internet connection’. Judge the extent to which this is true.

1. Introduction
   1. Internet World Stats (2014)
      1. The Digital Divide, or the digital split, is a social issue referring to the differing amount of information between those who have access to the Internet (specially broadband access) and those who do not have access. The term became popular among concerned parties, such as scholars, policy makers, and advocacy groups, in the late 1990s.
   2. Adams and McCrindle, pp. 13-14
      1. The world has long been divided into rich and poor, educated and ignorant, free and controlled. There are equivalent divides on national and international levels. The spread of computer and communication technology has changed the nature of these divides in unexpected ways. In many cases, of course, it has simply widened the divide: the children of the rich have access to the latest top-quality equipment and sources of information, allowing them to maintain their position relative to the uninformed poor. This has always been the case to some extent, in that children from poor homes could not afford encyclopedias and other textbooks or the fees of top-quality private schools. As the cost of computers and Internet access has reduced, access to an equivalent level of information has penetrated lower and lower on the economic scale, but there remains a significant underclass in industrialized society without access to, or knowledge of how to use, such trappings of modern life. (Adams 13-14)
      2. The double-edged nature of the information revolution is also noticeable on a global scale, with the development of outsourcing of computer programming, drug manufacture (and even research and development) and information-centric jobs such as enquiry call centres to countries such as India. Of course, this is leading to the rapid development of a digital divide in those countries even worse than that seen in the industrialized world. The instantaneous communications offered by worldwide telephone and computer networks have merged the stock markets and money markets into a nearly continuously traded global whole. No longer does the market stop when the trader leaves the office: it continues trading around the world and, by the time they start work again the following morning, seismic shifts in fortunes may have occurred. Computer-based trading has allowed the development of automated trading systems which track the stock market as a whole or individual stock prices and perform trades dependent on conditions set by a broker. In some cases, the combination of unusual events (such as major security alerts, major industrial accidents or currency value collapses) and automated trading can lead to a spiralling or oscillating sequence of market trades. Deliberate delays in processing trades or decision making have had to be introduced to avoid too much volatility in the markets. (Adams 14)
      3. Individual Stock Market Trading: Pump and Dump Scams
         1. Individual access to computer and telephone communications can also have a significant impact on stocks and shares, the basis of the capitalist economic system. Pump-and-dump scams have been around as long as the stock market: the price of a stock is ‘pumped up’ by spreading rumours that there is some reason it is about to jump (a new contract, a new product distribution approval or a takeover bid). Once enough people have bought in, driving the price up (the pump), the original holders of the stock sell at a vastly inflated price (the dump), leaving those who fell for the rumour to take the losses as the stock adjusts back to its natural price. This shows all the classic aspects of traditional confidence tricks: rely on people’s greed, have them do something slightly suspect or even downright illegal (trading on ‘inside information’ is illegal on most stock markets) and then sting them for their money. The slightly illegal nature of the victims’ own activities reduce the chances of complaints to law enforcement agencies. New variations on the pump-and-dump scam involve using usenet, email or other online communications tools to spread the pump information. In another recent variation, voicemail messages are left on mobile phones as though to a wrong number (quite plausible since many mobile-phone voicemail services do not include a personalized message, even where the facility is present). The US Security and Exchange Commission (SEC) prosecuted Michael O’Grady of Georgia in May 2005 (O’Grady pleaded guilty: www.usatoday.com/money/industries/telecom/2005-05-03-voicemail\_x.htm) and has previously prosecuted email and usenet pump-and-dump scammers. As both information and trading move faster and faster, wild surges in stock market prices are becoming more and more common, which can destabilize the entire world economy. (Adams 14-15)
   3. Adams and McCrindle, pp. 574-582
      1. The Digital Divide
         1. As is mentioned in various other chapters, many policy makers are concerned about the concept of the digital divide. There are two manifestations of this: within a country and between countries. The industrialized world has seen a mad dash to make broadband Internet connectivity ‘available’ to their whole population. What ‘available’ actually means is an interesting question, which we discuss below. In the meantime there are still significant portions of the world’s population who have never even made a telephone call. Free market economies tend to converge to the most economically efficient forms of trade. Where most of a population have access to a wide range of electronic communications, including the Internet, multichannel digital television and mobile phones, the other channels for commerce may face a lack of economies of scale. This leads to greater expense, often for those least able to afford it, in obtaining basic necessities and can even lead to significant social exclusion. (Adams 574-575)
         2. These problems can exist within a country, where a digital underclass without access to many of the benefits of the information age could develop and it can exist between countries where the lack of information infrastructure can cause countries to fall further and further behind the necessary state to engage profitably in world trade. (Adams 575)
      2. The Digital Divide in the Industrialized World
         1. As mentioned above, governments in the industrialized world have recently been engaged in contests to see who can make Internet connectivity and particularly broadband Internet connectivity, available to the largest proportion of their populations. The challenges that must be overcome are different for each country, depending on existing infrastructure in telecommunications, population densities and geographic peculiarities. There is also a considerable difference between ‘availability’ and ‘take-up’. Many governments are now moving from pure ‘availability’ measures – defined as ‘you can get it if you want it and can pay for it’ – to ‘take-up’ measures – defined as the proportion of the population who actually have and use a broadband connection.
         2. One of the significant barriers to encouraging take-up can be entrenched commercial suppliers of connectivity. Companies who have made a significant investment in offering broadband are loath to reduce their prices to improve the take-up rate. Companies are interested in the greatest profit margins available rather than in the greatest real take-up rate. If half the population are willing to pay $100 per month for broadband connectivity but a $20 rate would persuade 90% to sign up then companies would go for the $100 option. Sometimes commercial competition will drive the price far enough down, but the infrastructure costs may militate against the development of competition, as has happened in the UK cable television market where there is effectively no competition among cable suppliers in any specific area – the first to cable an area wins as the pickings once in competition are not worth the investment. Luckily for consumers, competition between satellite and cable provision has prevented a complete monopoly in cabled areas, though this competition is far from perfect, as discussed in Chapter 3. Persuaded that free, or cheap, broadband wireless Internet access would be a general public good and would possibly boost the local economy, city governments in some metropolitan areas in the United States have proposed municipal provision of this ‘vital infrastructure’. Existing commercial providers of both wired and wireless Internet connectivity are understandably opposed to this idea and have lobbied hard against it, even bringing legal actions claiming protection against government undercutting their business model. Besides the supposed economic benefits of universal connectivity, many city councils are arguing that to ensure that everyone can have access, a municipal infrastructure is needed. Whether the cost and availability of the connection is the problem in take-up by the ‘digital underclass’ is rather debatable. Far more problematic are:
            1. lack of equipment: free WiFi is not much good if you do not have a computer or if the computer you use does not have a wireless network card;
            2. lack of ability to use computers and the Internet;
            3. lack of desire to use computers and the Internet;
            4. concern over where the next meal is coming from and how to pay the rent rather than how to access the Internet.
         3. Such initiatives are coming to other countries as well, with the UK city of Norwich providing free WiFi coverage across the city (news.bbc.co.uk/1/hi/technology/5303092.stm). (Adams 577-578)
      3. E-Government
         1. Perhaps more worrying in many ways than the increased cost of commercial transactions for the digital underclass is the concept that government services themselves will move online to the extent that some sectors of the population will find themselves denied their democratic rights. The UK government has a commitment to increasing the information available online about government activity and increasing the amount of interaction with government that can be done electronically.
         2. For example, electronic filing of tax returns has been a great success in recent years, although infrastructure issues raise their head on deadline days if the Inland Revenue’s servers cannot cope with the number of people trying to file at the last minute (encouraged by the government’s helpful advertising campaign pointing out to people that the online system allows them to do this). Filing online is so much more efficient for the government than processing paper forms that it is conceivable that online filing could become compulsory in the not too distant future. Already the deadlines for physical return and online filing are months apart.
         3. In the 2005 General Election, the main UK political parties did not bother printing and distributing copies of their manifestos as they had done in the past, putting them through almost every letterbox in the country. Instead they placed much more substantial documents online. Despite free or cheap Internet access available through municipal libraries this was seen by some as denying the democratic rights of those without the means to access the Internet – how can someone be expected to vote for the party they believe represents their views when they cannot find out what the parties stand for? Of course the reduction in wasted paper was a cause for environmental celebration. (Adams 578-579)
      4. The Digital Divide Between the Nations
         1. The digital divide between rich and poor individuals in the industrialized world pales into insignificance when compared to the digital divide between rich and poor nations. On 14 March 2005, the United Nations launched the ‘Digital Solidarity Fund’ (www.dsf-fsn.org) to finance projects that will address ‘the uneven distribution and use of new information and communication technologies’ and ‘enable excluded people and countries to enter the new era of the information society’. But it must be remembered that giving poor countries IT equipment will not instantly make them rich. Bridging the digital divide is more than just having computers – what use are these if the people in the country do not have food to eat, electricity to make the computers work and education to know how to use them?
         2. As well as the advent of the One Laptop Per Child scheme (OLPC: laptop.org), another suggestion to overcoming the digital divide is to address the problem by way of mobile phone rather than computer technology. Research has shown that the impact of mobile phones on growth is twice as big in developing countries as in developed ones – an extra ten phones per 100 people in a developing country increases gross domestic product (GDP) by 0.6% according to the magazine (Economist 2005). Even the poorest African countries are rushing to embrace mobile phones: lower cost, no permanent electricity supply required and no need for the user to be able to read and write letters, just numbers on a keypad. Sunlight in equatorial regions is much stronger than in the temperate Northern regions and so solar electric cells are more productive, allowing both mobile phone handsets and cell stations to run purely on solar power. The lack of a cabled telephone network in much of Africa also helps drive the update of mobile technology. The challenge is for telephone handset manufacturers to produce cheap enough and robust enough handsets to satisfy demand in these markets and to produce sufficient economies of scale for infrastructure provision to be economical.
         3. Even though the UN’s target of 50% of the world’s population to live within the coverage of mobile telephony has already been exceeded (latest World Bank figures show almost 80% coverage), there is still a long way to go before we live in a fully connected world. The number of phones per 100 people is still a telling statistic:
            1. Ethiopia: 0.13
            2. Democratic Republic of Congo: 2
            3. United Kingdom: 110 (Adams 579-580)
2. Reason 1
   1. (Richtel, 2012)
      1. As access to devices has spread, children in poorer families are spending considerably more time than children from more well-off families using their television and gadgets to watch shows and videos, play games and connect on social networking sites, studies show.
      2. This growing time-wasting gap, policy makers and researchers say, is more a reflection of the ability of parents to monitor and limit how children use technology than of access to it.
      3. Like other researchers and policy makers, Ms. Boyd said the initial push to close the digital divide did not anticipate how computers would be used for entertainment.
      4. The study found that children of parents who do not have a college degree spend 11.5 hours each day exposed to media from a variety of sources, including television, computer and other gadgets. That is an increase of 4 hours and 40 minutes per day since 1999.
      5. Children of more educated parents, generally understood as a proxy for higher socioeconomic status, also largely use their devices for entertainment. In families in which a parent has a college education or an advanced degree, Kaiser found, children use 10 hours of multimedia a day, a 3.5-hour jump since 1999. (Kaiser double counts time spent multitasking. If a child spends an hour simultaneously watching TV and surfing the Internet, the researchers counted two hours.)
3. Reason 2
   1. Mims, 2012
      1. Indeed, a recent New York Times piece, “Wasting Time Is New Divide in Digital Era” (or, as Gawker put it, “Poor People Are Wasting Time on the Internet!”) asserts that while all kids are spending more time with media, those with lower socio-economic status were spending even more of it, and on activities like Facebook that aren’t exactly conducive to learning. In other words: even when you give poor people access to technology, they don’t know what to do with it! Might as well give a paleolithic tribe access to a chip fab, pffft.
   2. Stross (2010)
      1. Still, wherever there is a low-income household unboxing the family’s very first personal computer, there is an automatic inclination to think of the machine in its most idealized form, as the Great Equalizer. In developing countries, computers are outfitted with grand educational hopes, like those that animate the One Laptop Per Child initiative, which was examined in this space in April. The same is true of computers that go to poor households in the United States.
      2. Economists are trying to measure a home computer’s educational impact on schoolchildren in low-income households. Taking widely varying routes, they are arriving at similar conclusions: little or no educational benefit is found. Worse, computers seem to have further separated children in low-income households, whose test scores often decline after the machine arrives, from their more privileged counterparts.
      3. Ofer Malamud, an assistant professor of economics at the University of Chicago, is the co-author of a study that investigated educational outcomes after low-income families received vouchers to help them buy computers.
      4. “We found a negative effect on academic achievement,” he said. “I was surprised, but as we presented our findings at various seminars, people in the audience said they weren’t surprised, given their own experiences with their school-age children.”
      5. Professor Malamud and his collaborator, Cristian Pop-Eleches, an assistant professor of economics at Columbia University, did their field work in Romania in 2009, where the government invited low-income families to apply for vouchers worth 200 euros (then about $300) that could be used for buying a home computer.
      6. In the United States, Jacob L. Vigdor and Helen F. Ladd, professors of public policy at Duke University, reported similar findings. Their National Bureau of Economic Research working paper, “Scaling the Digital Divide,” published last month, looks at the arrival of broadband service in North Carolina between 2000 and 2005 and its effect on middle school test scores during that period. Students posted significantly lower math test scores after the first broadband service provider showed up in their neighborhood, and significantly lower reading scores as well when the number of broadband providers passed four.
      7. The Duke paper reports that the negative effect on test scores was not universal, but was largely confined to lower-income households, in which, the authors hypothesized, parental supervision might be spottier, giving students greater opportunity to use the computer for entertainment unrelated to homework and reducing the amount of time spent studying.
      8. The North Carolina study suggests the disconcerting possibility that home computers and Internet access have such a negative effect only on some groups and end up widening achievement gaps between socioeconomic groups. The expansion of broadband service was associated with a pronounced drop in test scores for black students in both reading and math, but no effect on the math scores and little on the reading scores of other students. In the report, the authors do not speculate about what caused the disparities. Neither author responded to a request for an interview.
4. Reason 3
   1. Mims, 2012 (comments)
      1. The bigger issue is how to get us all driving the Information Superhighway confidently and safely? While the FCC program sounds great, it’s vitally important to remember that in addition to technical skills, all of us (rich or poor, young or old) need to learn how to navigate the digital world safely and wisely. It also helps to have adult role models who can lead the way for our youth.
      2. Almost every American town had a public library - free to anyone to use. Except you rarely, if ever, saw people from low socio-economic backgrounds in those libraries. That same problem is simply transferred to the Internet nowadays.
      3. The poor people will be spending their time watching porn, playing games etc. The smart ones spend their time constructively - on educational sites.
      4. The divide is in peoples' brains.
5. Conclusion
   1. Freerepublic
      1. As recently as seven or eight years ago, we were hearing about a "digital divide" that had rich people able to improve themselves, get jobs, do jobs, get educated, on the internet, while poor people were left out of the internet revolution.
      2. Then, after all kinds of programs to get affordable digital access available everywhere (one example that comes to mind is the incredible arrangement Comcast was forced to accept), we are now told that the new, redefined, "digital divide 2.0" is all about poor people spending too much time consuming digital junk food from the internet.

References:

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