# What can engineers learn from the Humanities?

# John Naughton

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## Introduction

Everywhere one looks these days, the Humanities seem to be on the defensive. On both sides of the Atlantic and further afield there is a crisis of morale in humanities departments. Like the citizens of Czechoslovakia under Soviet rule, Humanities scholars console themselves with bitter, resigned humour, mocking the absurdities of their philistinic overlords. Here, for example, is Terry Eagleton, who has held chairs in English in an number of elite universities, reflecting on an encounter he had when being shown round a thoroughly modern Korean university by its thoroughly modern President:

"As befitted so eminent a personage, he was flanked by two burly young minders in black suits and shades, who for all I knew were carrying Kalashnikovs under their jackets. Having waxed lyrical about his gleaming new business school and state-of-the-art institute for management studies, the president paused to permit me a few words of fulsome praise. I remarked instead that there seemed to be no critical studies of any kind on his campus. He looked at me bemusedly, as though I had asked him how many Ph.D.'s in pole dancing they awarded each year, and replied rather stiffly 'Your comment will be noted.' He then took a small piece of cutting-edge technology out of his pocket, flicked it open and spoke a few curt words of Korean into it, probably 'Kill him.' A limousine the length of a cricket pitch then arrived, into which the president was bundled by his minders and swept away. I watched his car disappear from view, wondering when his order for my execution was to be implemented."

Running through the myriad complaints like Professor Eagleton's are some common themes. One of them is a kind of hurt bewilderment – a nobody-appreciates-us-any-more tone. Another is anger at the way universities are becoming increasingly managerial. Yet another is that the marginalisation of the Humanities is

<sup>&</sup>lt;sup>1</sup>Terry Eagleton, "The Slow Death of the University", *The Chronicle of Higher Education*, April 6, 2015. Online at http://chronicle.com/article/The-Slow-Death-of-the/228991/

driven by capitulation to a utilitarian view of universities as merely the servants of industry and government – clients who perceive no real need for graduates in "useless" disciplines like those (allegedly) represented in the Humanities. (In this context, it's interesting that the UK government department currently responsible for universities is BIS, the Department for Business, Innovation and Skills.) And of course implicit in this is a view that any institution of higher education which does not include a vibrant Humanities school is not really entitled to call itself a university – unless its remit is explicitly and exclusively technological, like, say, Imperial College London.

There has, of course, been a lively debate about all of this in which many Humanities scholars have vigorously asserted the value of their disciplines. In her pathbreaking book, *The Value of the Humanities*<sup>2</sup>, Helen Small groups their various arguments under five headings:

- 1. The Humanities cultivate intellectual disciplines that the exact and social sciences largely ignore.
- 2. The Humanities are "useful" to society in ways that aren't quantifiable but are nevertheless real, and thus make a significant contribution to the knowledge economy.
- 3. They make a distinctive contribution to overall happiness, or at least help us better to understand what happiness is.
- 4. Democracy needs the Humanities, or at least they prepare people for democratic citizenship (an argument that was central to Martha Nussbaum's case for the Humanities).
- 5. The humanities matter "for their own sake"— they need no justification.

Small is herself a distinguished Humanities scholar and the author of a much acclaimed study, *The Long Life* (2007)<sup>3</sup> which won the Truman capote Award for literary criticism. In her new book she has a dual purpose: to provide a historical account of the arguments in favour of the Humanities; and to test their validity for the present day. She subjects each of the above rationales to informed, sympathetic but severely critical examination, from which none emerges completely unscathed.

Now these are deep waters, especially for an engineer; but as someone who works in what is now probably Europe's largest centre for research in the Humanities and Social Sciences I have come to believe that the Humanities are vital for understanding my own area of concern, which is information technology and its implications for society. And in thinking about this I was struck by something that Teresa Morgan said in a talk<sup>4</sup> in Oxford on the question of "what have the humanities to teach the modern university?"

<sup>&</sup>lt;sup>2</sup>Helen Small, *The Value of the Humanities*, Oxford, 2013.

 $<sup>^3 {\</sup>rm Helen}$  Small, The Long Life, Oxford, 2010.

 $<sup>^4</sup> http://www.torch.ox.ac.uk/what-have-humanities-teach-modern-university$ 

The three aspects of the humanities that she focused on are: ethics; metaphysics; and critical thinking. And this list seems to me to provide a very useful place from which to start.

#### Why?

- Firstly, because much of modern technology is riddled with ethical issues and this applies particularly to my field, information technology.
- Secondly, we appear to be sleepwalking into a future that we did not choose because the combination of information technology, neoliberal economics and technological determinism has suppressed metaphysical questions about what constitutes a good life, or even a meaningful one. What is fairness? Why have we come to tolerate indeed even in some circles celebrate the gross inequalities that disfigure our societies?
- And finally the absence of critical thinking means that all kinds of grotesque misrepresentations like, for example, the "sharing economy" go unchallenged and indeed become part of the polite conversation of otherwise intelligent people.

So what I want to do here is to illustrate, with stories from the technology world, why these three aspects of the Humanities are of central importance even to us engineers. And I want to start with ethics.

#### **Ethics**

Silicon valley, as currently constituted, seems to me to be a largely ethics-free zone. In its frenzied quest for the "New, New Thing" (as Michael Lewis called it<sup>5</sup>) the only thing that really matters is whether a particular development innovation is likely to run foul of the law. (If it is, then the next question is whether not the suspected legal impediment might be eased or removed by political lobbying.) But as for ethics, well, they don't seem to figure much in this neck of the woods.

To illustrate that, let's examine some things that two of the huge Internet companies – Google and Facebook – get up to.

The business models of both are based on the idea that users exchange their privacy in return for "free" services. On examination, one finds that this so-called 'exchange' has some very strange aspects. For example, the contract which is the user accepts by clicking on the "agree" button of the end-user license agreement is ludicrously skewed in favour of the company. In most cases, it basically boils down to this: we give you some free services, and in return

<sup>&</sup>lt;sup>5</sup>Michael Lewis, The New New Thing - A Silicon Valley Story: How Some Man You've Never Heard of Just Changed Your Life, Hodder, 2000.

you allow us to do whatever we wish with your personal data. In the real, physical world nobody in their right mind would sign such a contract. And no commercial outfit – except, perhaps, a bank – would dare to try it on. But in cyberspace it is the norm – which makes one wonder about the ethical sensibility of the lawyers and executives who draft such terms.

But there is another side to these agreements'. Implicit in them is a conception of privacy as a *personal* good. So you exchange *your* privacy in return for, say, access to Gmail. In doing so you give Google the right to read your email in order to target advertisements at you. So according to Google it's just a deal between you as an individual and the company.

But supposing one of your correspondents doesn't like webmail and instead pays for an email service which does not snoop on her communications. But when she sends a message to your Gmail account, that message is also read by Google's algorithms – despite the fact that she did not consent to that. So by compromising your privacy, it turns out that you've also compromised hers. And what that means is that the whole basis for your deal with Google is fraudulent, because privacy turns out not to be a personal good but an environmental one.<sup>6</sup>

In exploiting their users' personal information the companies have to walk a delicate line because they do not want to frighten the horses, as it were. So they make a great song and dance about users' privacy settings, implying that these provide security and peace of mind to anyone who is concerned about their privacy. The commercial motivation for this tactical obfuscation is obvious, but it's interesting to see how it works out in practice.

Consider Facebook, which currently has 1.4 billion users. Kurt Upsahl, a lawyer working for the Electronic Frontier Foundation, conducted a study of how Facebook's privacy policies have evolved over the period 2005-2010. He published an interesting timeline<sup>7</sup> that starts with a "fairly moderate and reasonable" policy in 2005 and moves to the 2010 version which was radically different. "Viewed together", Mr Upsahl writes,

"the successive policies tell a clear story. Facebook originally earned its core base of users by offering them simple and powerful controls over their personal information. As Facebook grew larger and became more important, it could have chosen to maintain or improve those controls. Instead, it's slowly but surely helped itself – and its advertising and business partners – to more and more of its users' information, while limiting the users' options to control their own information."

The Internet giants are continually bleating about how they take users' privacy seriously at the same time as they are busily eroding and exploiting it. There's

<sup>&</sup>lt;sup>6</sup>Eben Moglen, "Snowden and the Future", http://snowdenandthefuture.info/

 $<sup>^7</sup>$ Kurt Upsahl, "Facebook's Eroding Privacy Policy: A Timeline", Electronic Frontier Foundation, April 28, 2010. https://www.eff.org/deeplinks/2010/04/facebook-timeline/

an old-fashioned word for this: hypocrisy. And of course one finds it everywhere in the corporate world – for example in the recorded message that tells you that "we really value your custom" while keeping you hanging on for 20 minutes on a premium-rate helpline. But to this traditional corporate hypocrisy the overlords of the digital world add an extra delicious layer, for while they are cavalier with your privacy they are exceedingly touchy about their own. When the Facebook boss, Mark Zuckerberg, bought a house in Palo Alto suburb, for example, the first thing he did was to spend \$30m purchasing several other neighbouring homes lest his precious privacy should be infringed.<sup>8</sup>

And when an American tech news website used Google search to ferret out all kinds of personal information about Eric Schmidt, who was at the time the company's CEO, Dr Schmidt went apeshit about the infringement of his personal privacy, even to the extent of instructing his minions to ban contact with journalists from the offending website. The idea that sauce for the goose might be sauce for the gander had apparently not crossed his mind.<sup>9</sup>

Then there are the algorithms which determine what appears in a news feed. I'm sure I don't need to tell you that what arrives in your news feed is not just a raw stream of your friends' photos and videos, status updates and stuff to which you have subscribed. But I'm sure that some of Facebook's 1.4 billion users still labour under that delusion. What Facebook is doing is perfectly understandable: it's manipulating your feed in an attempt to show you stuff in which it thinks – based on close monitoring of your past behaviour – you might be interested, plus some related stuff that might encourage you to buy something. And this is all done by algorithms: no human being is looking at your Facebook activities and making decisions about what you should see.

So far so good. But we now know from a few experiments that have come to light recently that Facebook's algorithms can do other things than increase the likelihood that you will do an advertiser's bidding. One experiment, for example, showed that Facebook could manipulate user's moods (the so-called "emotional contagion" study)<sup>10</sup>. Another showed convincingly that Facebook could alter people's political behaviour – in this sense by increasingly the probability that they would go out to vote.<sup>11</sup> Increasing voter turnout is, of course, a perfectly respectable thing to do in a democracy, but the fact that Facebook could have this effect provided a startling affirmation of algorithmic power. It also raises the

<sup>&</sup>lt;sup>8</sup>Alyson Shontell, "Mark Zuckerberg Just Spent More Than \$30 Million Buying 4 Neighboring Houses For Privacy", Business Insider, October 11, 2013. http://www.businessinsider.com/mark-zuckerberg-buys-4-homes-for-privacy-2013-10?IR=T

<sup>&</sup>lt;sup>9</sup>Gleen Greenwalk, "Why Privacy Matters", TED Talk, October 2014 http://www.ted.com/talks/glenn\_greenwald\_why\_privacy\_matters

<sup>&</sup>lt;sup>10</sup>Gregory S. "Facebook То McNeal. Manipulated User News Feeds Create Emotional Responses", Forbes,28 June, 2014. Online http://www.forbes.com/sites/gregorymcneal/2014/06/28/facebook-manipulated-user-newsfeeds-to-create-emotional-contagion/

<sup>&</sup>lt;sup>11</sup>Robert M. Bond *et al*, "A 61-million-person experiment in social influence and political mobilization", *Nature*, 489, pp295–298, (13 September 2012). Online at: http://www.nature.com/nature/journal/v489/n7415/full/nature11421.html

spectre of what the company could do if it decided to intervene on a particular side in an election. And if there is one thing we have learned from history, it is that wherever power is being exercised, there are issues of accountability, and of ethics.

Now let's shift focus, away from these Internet giants and down to the level of the average geek, or at any rate to the geeks who lurk in the garages of Palo Alto. When Steve Jobs launched the iPhone in 2007 he effectively created a new and unexpected world – what one was christened "the Planet of the Apps". As you know, apps are small programs that run on smartphones and tablets, and they have taken the world by storm. In July 2014<sup>12</sup> there were 1.3m apps for the Android system and 1.2m for Apple's IoS. The great thing about apps is that anybody can create them. You just need a good idea (or at any rate an idea), a modicum of programming ability and bingo! off you go. And the great thing is that you don't have to worry about global distribution. If you write IoS apps (and your programe gets through Apple's filtering process) then distribution is handled with Apple taking its standard cut. Something similar happens on the Google Play store for Android apps, though without the vetting.

Most apps are trivial, but some are wonderful and deservedly popular. What I find interesting about them, however, is the ways in which some – perhaps many – of them are ethically challenged.

Take for example Path, a social networking photo-sharing and messaging service for mobile devices, launched in November 2010, which allows users to share with their close friends and family up to a total of 150 contacts. "At Path", burbles the makers' web page, "we have one mission: through technology and design we aim to be a source of happiness, meaning, and connection. We do what we do so that you might be a little closer to what you care about most." Because I write a newspaper column about this technology, I tend to try this stuff when it appears, so I downloaded the app and then noticed that, without asking for permission, it was apparently raiding the contacts book on my phone and doing something - I knew not what - with that information. And then it turned out that in 2013, the company was fined \$800,000 by the FTC for storing data from underage users<sup>13</sup>. The company will be required to have its privacy policies assessed every two years for the next twenty years. And along with the civil penalty, the FTC has prohibited Path from making any misrepresentations about the extent it maintains confidentiality of its users' personal data. And it turns out that this tendency of app designers to be cavalier about users' personal data is quite widespread.

Then there are apps which exploit young children – or, perhaps more accurately, their parents. A good example is My Tom, a 'free' app in which a charming animated kitten miaows attractively when prodded by a delighted toddler. As the child explores the possibilities of this charming creature, it rapidly becomes

<sup>&</sup>lt;sup>12</sup>Helen Small, The Value of the Humanities, Oxford, 2013.

 $<sup>^{13} \</sup>rm http://en.wikipedia.org/wiki/Path\_\%28social\_network\%29$ 

clear that if he is to be dressed in, say, a clown's outfit, then a trip to the Apple App store is necessary, because extra outfits cost money. It's the so-called "inapp purchases" trap.

There's nothing especially unusual about this, of course: it's just a variant on the supermarkets' trick of putting sweets near the checkout. But it shows that, in their search for a business model, even geeks in garages make the same choices as large corporations. What interests me, of course, is whether they are aware of the ethical dimensions of what they are doing. They have, after all, made a choice: not to charge for the app in the hope that in-app purchases will provide revenue by the back door, as it were.

And then we move one further notch down the scale – to us, the users of these apps and online services. What we've discovered in the last few years is that in a strange way the Internet serves as a mirror in which we see a reflection of human nature. And some of what we see in that mirror is deeply, deeply troubling. We see, for example, appalling irresponsibility – as when hundreds of Twitter users in the UK wrongly identified an elderly Tory peer as a paedophile simply by thoughtlessly retweeting false information based on careless journalism. 14 And we see appalling levels of hatred, prejudice, sexism, misogyny, ignorance, homophobia and racism. I've lost count of the number of women I know, or have heard of, who have basically decided to withdraw from cyberspace because of the terrifying levels of abuse that is directed at almost any female who puts her head above the online parapet. The fire-storms of ersatz indignation that sometimes erupt on social media hark back, if not to the Middle Ages, at least to the lynch mobs of the American deep South. And if you want a taste of the astonishing levels of cruelty that people seem capable of on online media, then I recommend spending a few evenings with Jon Ronson's latest book<sup>15</sup>, So You've Been Publicly Shamed.

So it's not just Silicon Valley that is ethically challenged. The problem pervades the whole of the online world.

# Metaphysics

This is a pretty grandiose word to find in a lecture like this, but what I mean by it is the study of what is outside objective experience. What brings it to mind is a conjunction of two things. One is Martin Heidegger's description of technology as "the art of arranging the world so that you don't have to experience it". The other is a memory of a moment at the Glastonbury Festival a few years ago when the Rolling Stones – my favourite rock band – did their famous gig. It was a wonderful moment to see those ageing guys, some of them even older than me, wowing a crowd that included not just me as a television viewer but also some of my adult children and my four-year-old grandson who were there

 $<sup>^{14} \</sup>rm http://en.wikipedia.org/wiki/McAlpine\_v\_Bercow$ 

<sup>&</sup>lt;sup>15</sup>Jon Ronson, So You've Been Publicly Shamed, Picador, 2015.

on the night. But the thing that struck me most was that almost everybody in that crowd at that epochal moment was not really immersed in the music. They were instead holding up their mobile phones *recording* it. They weren't living the moment: they were trying to *capture* it. And the question that came immediately to mind was: to what end?

What would Socrates, who thought that the unexamined life is not worth living, make of this? What our digital technologies now enable us to do is to record and memorialise our lives. 120 billion photos on Facebook. God knows how many days of video now uploaded every minute to YouTube. So we can have a record of every waking moment of our lives. So what? Will those lives be qualitatively any richer than those lived before the Internet existed? Will they ever be examined in the Socratic sense? I think not. The technology giveth, and the technology taketh away.

And that, I think, is emblematic of the world that digital technology has created. And it's genuinely puzzling. And before you take a look at me and conclude that this is clearly an old fogey having trouble coming to grips with the modern world, let me remind you that I have been in on this stuff almost from the beginning. I started here in UCC on an IBM 1401 mainframe using punched cards. In Cambridge I used some of the earliest time-shared mainframes. I had an email address of sorts in 1972, and a remote connection from home in 1975. I wrote a history of the Internet because I was infuriated by the way the 'real' world was ignorant of its origins and its potential. And I have been all along a believer in the emancipatory, empowering, enlightening potential of digital technology generally and the Internet in particular. In fact, if you wanted a succinct description of me you could say that I was a recovering Utopian.

What's puzzling – and sometimes worrying – me is the emerging, yawning, gap between the potential of the technology and the increasingly impoverished uses we are making of it. In the early days of the Web, for example, we saw a glorious explosion in user-generated content, in remix culture, in ingenious and witty forms of activism, in clever uses of the technology for democratic purposes by organisations like MySociety, and so on.

But in recent years, some of the fizz has gone out of it. We see this, for example, in the vast increase in the use of the Net for passive consumption of material created by corporations. The TV industry's dream of the Internet as billion-channel TV seems to be coming to pass. Although there is still a vibrant blogosphere, public attention has moved to social media, where many of us mistakenly believe that discourse on corporate platforms like Twitter or Facebook is somehow equivalent to public debate on open fora. And even in the blogosphere we're finding that people seem to prefer interacting with, and reading, the views of those with whom they disagree, so the online public sphere is morphing into a vast ecosystem of digital echo chambers.

Which brings us to the question posed a few years ago by Tim Wu, a law profes-

sor at Columbia. In his masterful book, *The Master Switch*<sup>16</sup>, Tim recounted the history of the great communications technologies of the 20th century – the telephone, movies, broadcast radio and TV – in the United States. He shows that the early years of these communications technologies were accompanied by optimistic hopes or Utopian dreams. Every new communications medium brought with it hopes that it would ameliorate the ills of society.

Broadcast radio, for example, attracted an extraordinary faith in its potential as the benefactor, perhaps even a savior, of mankind. The urge to exploit the new medium stemmed from humanitarian as well as economic motives.

In the US, where broadcasting began, people dreamed that it would reduce the distance between citizens and a remote federal government, that it would elevate the level of public and political discourse, and that would lead to a cultured society. "A man need merely light the filaments of his receiving set", wrote the Director of Research at the Radio Corporation of America (RCA) in 1922, "and the world's greatest artists will perform for him". Viewed against this background, the hopes and dreams of the early Internet evangelists seem almost tame.

But, in the long view of history, Tim Wu discerned a pattern. New inventions lead to a period of openness, excitement and a feeling that nothing will ever be the same again. But the openness doesn't last. Closure is triggered by the arrival of one or more charismatic entrepreneurs at the point when the novelty of the new technology is beginning to wane and consumers have developed a taste for quality, stability and higher production values than are being delivered by the nascent industry.

The newcomers offer a better proposition: in telephony, for example, AT&T offered a single network (as opposed to the variety of non-intersecting phone systems then in existence) together with the guarantee that customers would get a dial tone when they picked up their handsets; in radio, NBC offered better programming, with professional actors, better scriptwriting, and so on; in movies, the emerging moguls, faced with the creative chaos of the silent movie business, built vertically-integrated chains which owned studios as well as cinemas, employed stars, and delivered sound (and, later, colour) – in other words a more attractive, uniform product.

And consumers responded to these propositions, which led to a positive feedback loop: the new entrepreneurs became more and more successful, their competitors fell away and eventually the industry was effectively captured either by a monopolist (telephony), or a cartel (Hollywood).

The most insidious thing is that this process of capture (or closure) doesn't involve any kind of authoritarian takeover. It comes, Wu says, not as a bitter pill but as "a sweet pill, as a tabloid, easy to swallow, beloved".

 $<sup>^{16}\</sup>mathrm{Tim}$  Wu, The Master Switch: The Rise and Fall of Information Empires, Atlantic Books, 2012.

You can see where this is headed. The big question, the existential question, that now faces us is whether the process of capture and closure described by Tim Wu will also happen to the Internet. Because remember that it too started out all those years ago as a technology that fostered Utopian dreams; it was seen as a democratising, benevolent force that would change society for the better, that would enable us to build a more attractive, cosmopolitan, connected world. It still retains the potential to achieve all these great things and more. But with every passing day it diverges further from that uplifting path and heads into a virtual world of monopolistic shopping malls, passive consumption and pervasive, intrusive surveillance.

Which is where the Humanities come in. There's no point in asking engineers, or the venture capitalists of Silicon Valley, what kind of world *should* we be building because all you will get is a blank stare. To them it's a meaningless question: their view is that we will whatever world the technological steamroller will provide, as the inexorable logic of digital technology works out. Here and there in that world you will find contrarians like Andrew Keen and Evgeny Morozov, and dreamers like Jaron Lanier, who are interested in whether this is a good thing or not. But they're in a small minority. For most of those who build and control this technology the dominant metric for 'value' is economic.

One of the wisest people I've ever known was a British lawyer named Sir Geoffrey Vickers. He won a Victoria Cross in the First World War, and in the 1920s and 1930s worked as a Mergers and Acquisition specialist in Slaughter and May – then as now one of the big five law firms in the City of London. When the Second World War came, Churchill reached for him and he worked in the Ministry of Economic Warfare and on the Joint Intelligence Committee. After the war, when Clement Atlee wanted to nationalise the mines and the railways, he reached for Vickers – because after all nationalisation is an extreme form of merger and acquisition! And during all this time, Vickers was writing a set of astonishingly wise books about organisations and management, of which the most memorable are The Art of Judgement<sup>17</sup> and Freedom in a Rocking Boat: changing values in an unstable society<sup>18</sup>.

I knew him only in the closing years of his life, but he made a deep impression on me. And what I remember most is one of his throwaway lines. "The hardest thing in life", he said once, "is to know what to want. Most people never find out, so they wind up pretending that they wanted what they could get".

What do we want from digital technology? That's the big question of our age. And we need the Humanities to help us think about it.

<sup>&</sup>lt;sup>17</sup>Geoffrey Vickers, The Art of Judgment: A Study of Policy Making, Sage, 1965.

<sup>&</sup>lt;sup>18</sup>Geoffrey Vickers, Freedom in a Rocking Boat: Changing Values in an Unstable Society, Penguin, 1972.

### Critical thinking

The third thing the Humanities could give us is a renewed capacity for critical thinking, for interrogating the logic and implicit assumptions of propositions that shape public understanding and discourse about technology. What's interesting about the last few decades is the way public discourse about information technology has been infected by euphemism, misleading metaphors, thoughtlessness and cant.

This is a big subject and time is limited, so I will just confine myself to three examples.

The first is what one might describe as the deliberate exploitation of public ignorance. A good example is the question of algorithmic power. When Google is attacked on the grounds that its search engine favours Google products over those of its competitors, or that Google News highlights some stories and publications while relegating others to the dustbin of history the response is always the same. "Nothing to do with us". It's all done by algorithms which have no favourites, no agenda and are completely objective. Nothing to see here, move on.

Now, to us, what seems remarkable about this is that they think that people will be reassured by this argument. But they wouldn't be trying it on if they didn't think it worked. They're banking on public ignorance, on the fact that people don't know what an algorithm is, and don't understand that algorithms have values and assumptions baked into them which the code then faithfully executes. And my guess is that this is a pretty good bet. They shouldn't be allowed to get away with it.

A second example is the coinage of phrases that are expressly designed to conceal or sanitise sordid realities. My favourite is "sharing", as in "the sharing economy". In real life, sharing is good. It has heartwarming connotations of altruism and generosity. In the technology world, however, sharing has a whole range of other connotations – from the thoughtless retweeting of lies to outright theft – as for example when you illicitly download a music track and then pass it on to your mates.

The idea of the "sharing economy" is even more obfuscatory: it's shorthand for things like AutoShare (where you rent out your car to others when you're not using it) and Airbnb (where you rent out your spare bedroom on a nightly or weekly basis). There's nothing necessarily wrong with this (provided you pay tax on the proceeds and are properly insured), and it may be an efficient way of using resources, but sharing it ain't: it's really the marketisation of everything. "At its worst", writes Evgeny Morozov,

"the sharing economy turns us into perpetual hustlers, cementing our connection to the global market. This sharing imperative dictates that everything that we own, from tangible assets to intangible thoughts, be categorised and assigned some kind of a unique identifier like the QR code. When somebody somewhere – it could be our neighbour or an advertising company across the ocean – expresses an interest in 'borrowing' an item that matches the description of what we own, our phone would notify us of their offer, pitting us against all the other 'micro-entrepreneurs' with similar ownership profiles. Once we accept, the rest is logistics...".<sup>19</sup>

And finally, there's the most outrageous locution of all – the mantra of the security services and their political overlords that "if you have nothing to hide then you have nothing to fear" from comprehensive, intrusive surveillance. It's difficult to know where to start with this, and smarter people than me<sup>20</sup> have comprehensively demolished it, so I will just mention a few points that would be obvious to anyone educated in the Humanities. Firstly, there is the way the mantra confuses privacy and secrecy; secondly it ignores the essence of what it means to be human – which includes the need (and indeed the right) to have a private life; thirdly, it implies that that there are only two kinds of people — good and bad – and that only bad people want privacy; fourthly it ignores the fact that mass surveillance, as Foucault observed, creates "a prison of the mind" which breeds conformity and obedience; and fifthly it implies that only people who don't want to question or oppose those in power are the ones who should be relaxed about surveillance.

I could go on, but you will get the point. Digital technology has created a world that is both exhilarating and troubling. The engineers who built it understand how it works, but they often haven't the faintest idea of what it means or what its longer-term implications are. We need help. And the Humanities could provide it, if only they choose to engage with it.

Thank you.

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 $<sup>^{19} \</sup>rm http://www.theguardian.com/commentisfree/2014/sep/28/sharing-economy-internet-hype-benefits-overstated-evgeny-morozov$ 

<sup>&</sup>lt;sup>20</sup>For example, the security expert Bruce Schneier. See https://www.schneier.com/blog/archives/2009/12/my\_reaction\_to.html