INTERNET, SOCIETY AND CULTURE

Communicative Practices Before and After the Internet

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Contents

1

Before and After the Internet

Introduction

The nature of culture and society changed at the end of the twentieth century, as novel forms of communication dependent on internet technologies came into widespread use. With the internet came not just email, electronic discussion boards, social networking, the world wide web and online gaming but across these, and other similar socio-technical artefacts, also came different identities, bodies and types of messages that changed the nature of communication and culture. The following arguments explore interrelations between the rise of the internet and different identities, bodies and messages in communication and examine their effects on twenty-first-century cultures and societies. The focus is on the practices that make the sending and receiving of messages possible and how these practices have changed. This will be done by comparing a case study of pre-internet communication using early nineteenth-century letters with a case study of deeply immersive internet communication using online virtual world gaming. This will lead to consideration of the meaning of changes in communication brought by internet technologies for wider cultural and social change, particularly in the normalization of communicative anxiety.

Such a project explores the nature of communication after the rise to mass use of internet technologies. In this sense, being 'after the internet' is not the same as being without the internet but instead refers to how communication operates once internet technologies are integrated into it. The first step of this project is to consider the claim that there has been social and cultural change related to internet technologies, and, to do this, it is useful to look at

a puzzle about metaphors and analogies between the non-virtual world and virtual phenomena. Such metaphors are nearly always based on a familiar phenomenon from the non-virtual world (e.g. letters) that is then applied to an aspect of the virtual world (e.g. email) to explain or introduce the latter. The puzzle is that such metaphors often appear obviously and intuitively clear, allowing what seemed novel and puzzling to be understood as familiar and obvious, yet after some consideration such metaphors usually turn out to be significantly misleading. What at first seems to be an insight turns into a failed interpretation, and in doing so offers an indication of cultural and social changes that have come with mass use of the internet. To see this, we can look at two examples of the difficulty of comparing what seem, at first glance, to be the same acts conducted in the online and offline worlds; burglary and street protest.

Metaphors and their failures: the metaphor of burglary

Hacking, or to some cracking, refers to the act of breaking into someone else's computer remotely.[1] As has often been said in computer security circles, the only way to be certain someone cannot access your computer illicitly is to lock it in a secure room that has no access to the internet and then allow no one else access to the room. Once a computer is connected in some way that allows other computers to access it then the chance that someone can break into that computer is always there, whether it is secured by password or firewall or these and all manner of other computer locks.

The history of cracking offers many varied and increasingly complex ways of breaking into a computer (Goldstein, 2008). These range from the cracker who gained access to the Duke of Edinburgh's email account by guessing that the password would be 1234, to the production of a program that automated breaking into accounts on Microsoft networks, to the 'playful' types who break into websites and rename them (the Central Intelligence Agency renamed to the Central Stupidity Agency, for example) (Taylor, 1999, p. 72; Jordan and Taylor, 2004, pp. 111–14). From the beginning of cracking, it seemed that an obvious metaphor for it was burglary. The success

and failure of this metaphor can be examined drawing on a formative time in the history of hacking and the internet; the 1990s period of cracking, which is now sometimes called its 'golden age,' before the more criminal and geopolitical phase of the early twenty-first century (Sterling, 1994; Menn, 2010; Poulsen, 2011).

Burglary makes sense as a metaphor for cracking because it captures its key characteristics. There is the sense of the illicit and the need to break something to pass a boundary, and it further captures the sense of an invasion of space by someone not meant to be there who is gaining some advantage. Most important of all, burglary is well known and easily understood and can thus make the strange into something commonplace. The burglary metaphor was popularized primarily by computer security professionals, who were often desperate to explain to the internet-illiterate in the 1990s what cracking meant. It was therefore an advantage that burglary not only explained what cracking meant but also rang the alarm bells that many felt were necessary. For all these reasons, burglary became during the 1990s, and remains, an oft-used metaphor for cracking. However, when more closely examined, the metaphor begins to appear confusing and, under sustained analysis, misleading. Examining this makes clear that the burglary metaphor for cracking does not work as an accurate representation of cracking but instead its inaccuracy functions to establish moral judgements about cracking.

What criminal breaks into someone's home and steals their television by taking an exact copy of that television, leaving both the victim and the criminal with a television? No burglar does this of course, it is impossible, but this is what a cracker does. Crackers do not, usually, remove digital objects, they copy them. This point has often been noted when criticizing burglary as a metaphor, and it is the first step in seeing that digital burglary is not really like physical burglary. There are some other differences that quickly appear as more is found out about cracking. For example, crackers hold publicly advertised conferences, which is not a usual practice for burglars or criminals, and crackers sometimes ring up the sites they have cracked to advise systems administrators on their failures and how to fix the problem, which is again not a usual or familiar criminal practice. The latter is a practice still alive in 2011 when the hacking group LulzSec broke into part of Nintendo but reported the breach to Nintendo

because of their proclaimed love for Nintendo gaming (Winterhalter, 2011). Both in the types of actions taken – copying versus taking – and in their attitudes to what is done – open discussion versus secrecy – crackers do not seem to fit an obvious understanding of what a burglar does.

The recognition of such inaccuracies sometimes leads to the reformulation or extension of the metaphor of burglary to try and make it stick. A computer-systems manager Bernie Cosell offered the following adjustment:

> There is a great difference between trespassing on my property and breaking into my computer. A better analogy might be finding a trespasser in your high-rise office building at 3am and learning that his back-pack contained some tools, some wire, a timer and a couple of detonation caps. He could claim that he wasn't planting a bomb, but how can you be sure? (Cosell, cited in Jordan and Taylor, 1998, p. 772)

We can note that this retains many elements of burglary, breaking and entering, particularly, but shifts the sense of what occurs after breaking in. A then-UK-government official, Mike Jones, attempted a similar adjustment both trying to retain the sense of threat and danger involved in burglary but acknowledging that burglary and cracking are dissimilar.

> Say you came out to your car and your bonnet was slightly up and you looked under the bonnet and somebody was tampering with the leads or there looked like there were marks on the brake-pipe. Would you just put the bonnet down and say 'oh, they've probably done no harm' and drive off, or would you suspect that they've done something wrong and they've sawn through a brake pipe (Jones, cited in Taylor, 1999, p. 111)

Warming to his adjustment of the metaphor, Jones enunciated a second reinterpretation of cracking as burglary shifting it further to forms of illicit access that carry an implied threat, this time moving from cars to airplanes.

> Say a maintenance crew arrived at a hanger one morning and found that somebody had broken in and there were screw-driver marks on the outside casing of one of the engines, now would they look in side and say 'nothing really wrong here' or would they say, 'hey, we've got to take this engine apart or at least look at it so closely the we can verify that whatever has been done hasn't harmed the engine.' (Jones, cited in Taylor, 1999, pp. 111–12)

From a house to an office to a car and then a plane, the metaphorical position of the computer that is being cracked shifts as each attempt tries to retain an ethical sense of what a 'crack' means while failing to equate the physical and digital realms.

The difficulty with these metaphors points towards two conclusions. First, in this case the metaphors are primarily a means of establishing an ethical view of cracking, not of representing cracking accurately (Jordan and Taylor, 1998, pp. 770–5). Second, and this is the key present point, a metaphor that seems obviously and intuitively correct between acts in physical space and acts in digital space does not work and is significantly misleading. Things appear to be different when a seemingly similar action is taken over the internet and in a house. However intuitively similar these acts are, they are in fact quite distinct. A second example will help further explore this point in the creation by hacktivists of mass civil disobedience on the internet using the model of the street protest.

Metaphors and their failures: the metaphor of protest

In the mid-1990s, a number of political activists began to explore the consequences for civil disobedience of the emergence of the internet. Activists had not only adopted email, electronic fora and other communication possibilities produced by the internet to help organize but had also begun to think about how to take direct action online. Activists began to explore and develop ways in which familiar offline protests such as boycotts, blockades and other forms of non-violent direct action could be recreated in online environments, leading to a politics called 'hacktivism.' Out of this came one particular strand of online direct action in an attempt to recreate mass street demonstrations online. The logic was that if information flows have become as important to centres of power as physical flows, then there needed to be a way of blocking information flows that was equivalent to the ways street demonstrations obstructed physical flows (CAE 1996, 10–15; Jordan and Taylor 2004, 67–74).

The equivalence between mass street and mass online demonstrations can most clearly be seen in examples where a virtual demonstration is timed

to coincide with street demonstrations. The anti-World Trade Organization demonstrations in Seattle in 1999 were both virtual and non-virtual. The actions that made most of the headlines were those in the streets, where demonstrators sought to block roads with the mass of many bodies so that conference delegates were unable to get into the conference building. For example, early in the morning of 30 November, demonstrators took over the main intersections around the conference venue, several different marches then brought more demonstrators into the area. With numbers of demonstrators much higher than expected, they had effectively blocked all the streets and the key intersections around the conference venue, blocking some police inside a ring of protesters. This meant that conference delegates could not pass through the demonstrators. Police attempted to break the encircling demonstration and join up with police already trapped inside. Beginning as a non-violent demonstration, its very success led to police attempts to forcibly break the lines to remove demonstrators. The presence of violent protesters also contributed to the emergence of the now-iconic pictures of destruction and fighting that led to the demonstration being called 'The Battle in Seattle' (Gautney, 2010).

Here is a classic street demonstration which effected its politics using human bodies, and ingenuity, to physically block space and to prevent others using those spaces. At the same time, human ingenuity was being used to block the electronic wires supporting the WTO conference. A protest group called the 'Electrohippies' (also Ehippies) set up an action to run concurrently with the street demonstrations that would allow anyone unable to physically be in Seattle's streets to attend virtually. The Electrohippies set up a means of bombarding the WTO computer network with requests; essentially anyone could participate by going to a website set up by the Electrohippies and by clicking on a link that then automatically repeated requests for certain pages from the WTO site. The Electrohippies claim that this was a successful action, believing that they stopped the WTO servers on 30 November and had 450,000 uses of their links (Jordan and Taylor 2004, pp. 74–9). And such actions continue having now entered the repertoire of political activists. For example, in March 2010, the Electronic Disturbance Theatre organized a virtual sit-in at the President of the University of California's online portal to coincide with

street demonstrations against fee increases and other issues at the University of California (Goodin 2010).

Yet the validity of such political actions was challenged by other online activists who did not accept the equation of an online blockade with an offline blockade. These activists rejected the metaphor and in so doing exposed its confusions. The fundamental criticism was that the body that helps constitute a blockage in a street is not the same as the 'body' that blocks connections on the internet. One way of seeing this is to note that it is easier for one person to block connections to a particular site on the internet than it is for thousands of people to do so. Attacks on websites that flood them with data and so block their connection to the internet making them disappear are well known as denial of service (dos) attacks and have rendered invisible many major online presences. Most of these attacks are conducted by one person or a few automating the production of information requests to the target, for example, by infecting a wide range of computers with 'zombies' that can be set to suddenly produce large flows of requests to connect to the one target at the one time. All this can be done by a single person. Such attacks are characteristic of the dos attacks in 2010 orchestrated by activist group Anonymous to strike back at organizations they felt were attacking WikiLeaks. Though several Anonymous members participated – for example, five were arrested in the United Kingdom in late 2010 for their alleged participation – each attack utilized a massive reproduction of information, reputedly based on the software package LOIC, and thus multiplied information hugely over the number of bodies participating. In this way, such sites as MasterCard were claimed to have been slowed and taken down for short periods (Addely, 2010).

But the actions of those like the Ehippies or Electronic Disturbance Theater (EDT) must avoid the accusation that they are single or just a few people, because they need the mass of bodies to be able to claim to be a public protest that expresses a legitimate political claim precisely because it is, like a street protest, a mass. Somewhere embedded in the idea of mass street protest is the legitimacy conferred on this protest by the numbers of people involved, and this political claim needs to be translated into mass online protests. Such online protests therefore often utilize technologies that limit the powers of the internet and avoid the ability that Anonymous and others using dos attacks

have in multiplying protesting bodies rapidly and massively. The virtual protest body only corresponds to a street protest body by limiting the capabilities the internet offers.

This leads to the paradoxical situation in which the most technologically advanced mass protests must utilize impaired forms of technology to retain political legitimacy. The Ehippies protest offered two links to click on depending whether a protester had a fast or slow connection; the fast link reloaded six pages on the WTO site automatically while the slow loaded two. The Ehippies could have set these reloads to be much higher or could have launched automated dos attacks but they had to utilize technology that was less effective at taking down the WTO site so that they retained the political legitimacy conferred by being a *mass* protest.

The issue of political legitimacy and its different manifestations online and offline demonstrates how misleading the equation of street and online mass protests is despite that equation having been a basis for the creation of this political tactic. There are also other differences that can be quickly found. For example, online protests have been criticized for their ease and lack of danger, the comparison between clicking a mouse and running from riot police suggests a very different level of commitment between the two protest types. A further difference is that one of the key issues with a mass street protest is the logistics required to get a large number of people together in the right place at the right time; again this differs radically with online protests where such logistics generally involve turning on a computer, perhaps after having received notification through an automated email list (Jordan and Taylor, 2004, p. 80). The more the nature of a mass online protest is probed, the more such protests seem different to offline mass protests. The use of classic civil disobedience to present online protest as a metaphor, such as when the Critical Arts Ensemble calls for 'electronic civil disobedience,' turns out to be initially attractive but substantively misleading.

Despite the seeming immediacy and accuracy of many metaphors of offline for online phenomena, they turn out to be misleading in case after case. We can enter 'chat' rooms and 'talk' to people when in fact we are typing, and everyone can talk all at once and retain full communication. We 'go' to 'places' without moving an inch from our chairs, with just the pixels rearranging themselves

on our computer screens. And it is not that we fail to move on the internet, just that using the space we know that is not involved with internet technologies as a metaphor or guide to the spaces that internet technologies are part of producing, will initially beguile us but also mislead us. This failure is a clue to the larger issue; to what extent are social and cultural norms, ethics and practices different or similar when they are or are not dependent on internet technologies?

Moreover, such metaphors contribute to the way debates over the effects of the internet have often become polarized. The misleading understanding analogies and metaphors offer us, allow the comforting claim that something that seems new is actually familiar. When they fail, as they habitually do, they also then open the door to the opposite claim that something entirely new that supersedes the old has appeared. Analysis can then be caught in an opposition between claiming nothing 'really' new has appeared or its opposite that something radically new has appeared, rather than comparing and delineating what is new and what is the same. The present argument pursues the change that the failure of metaphors like street protest for online protest suggest exist, but does so to be clear that there are likely to be both similarities and differences between communication before and after the advent of internet technologies. To explore this, there will be a need to grapple with both the mess and complexity of variable interactions between technologies, groups, individuals, signs, actions and more through which communication is lived and routine and habitual practices that in their repetition also make up communicative practices. The first stage in this analysis is to take this clue that failed metaphors offers and turn it into a hypothesis based on existing studies of communication and the internet.

A hypothesis of communicative practice after the internet

The failure of metaphors drawn between non-virtual and virtual spaces suggests differences between the two. To develop this difference and focus it on communication I will propose the following hypothesis. The difference between online and offline can be taken as a sign of the existence of two

concurrent and interacting communicative practices: one communicative practice was developed in Western societies prior to the emergence of internet technologies and is familiar to the point of being nearly entirely taken for granted; and, there is a second communicative practice that has arisen with the emergence of internet technologies and has been rapidly developed and assimilated by many.

A hypothesis here can be thought of as the first suggestion that explains some of the behaviour indicated by the failure of metaphors between online and offline and that is also being studied in the quickly grown field of internet studies. Further, 'hypothesis' can be understood in its older meaning from Ancient Greece when a hypothesis was a summary of the plot of an ancient drama. Such hypotheses acted as something like a preface giving the story, its setting, main characters and the context for a play's initial production (Vlastos, 1994; Kovacs, 2005, pp. 384–5). If the modern drama at stake in this book is 'Has communication and culture changed with the arrival of the internet?,' then another way of understanding what I mean by hypothesis is that it summarizes the story's plot by outlining its main meanings and conceptual protagonists. A hypothesis of this type is well served by telling the story once in a small way and then retelling it with conceptual and empirical complexity.

The hypothesis, or storytelling, has implicitly begun in the identification of the possible difference between phenomena that are offline and online. The phenomena that were used to suggest this possibility were each based centrally on communicative contexts, whether that of illicit communication to computers or of destroying communication to targeted protest sites. Putting communication and practice together suggests exploring sets of social and cultural relations played out through material practices that establish ways in which people may communicate. Material practices here refer to repeated actions emphasizing that they involve empirical and tangible resources. Communicative practices set out how we, normally unthinkingly, stabilize the elements of communication and how in daily practice we easily answer questions such as: What is the identity of the sender? How does the receiver know this message is from the sender? What is the identity of the receiver? How is the self-identity of the message maintained? How can the message be read? Communicative practices focus not on the moment of transmission,