

Historicising the Internet

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The importance of history

Whatever topic for scholarship an Internet researcher chooses, there is always an historical dimension to it which, depending on the particular kind of research being done, may be more or less significant to the final outcomes. Of course, most of this research is not, of itself, historical – it is not the writing of history; but, nevertheless, history inhabits our research in ways that might not be immediately apparent. As doctoral students, you are no different in this respect.

But what do I mean by history? This is an important question – for those of you who are not actually doing historical PhDs. It is not perhaps as obvious as you might imagine. Let me briefly answer this question, then, before moving on to discuss for you three ways in which history can be important for scholars and students of the Internet. I am not going to be able to do full justice, of course, to the philosophy of history at this time, but will I hope give you a foundation from which – as I move through today's workshop – will enable you to become more sophisticated 'users' of historical approaches in framing your own research, answering your key research questions, and coming to excellent and important questions.

So, what is history? The most important distinction we must make is between the past itself, and the stories – the history – we might discern, discover, write and read about that time 'other' than the present. Without getting too caught into complexities of ontology and epistemology, it's clear to me – and accepted almost as a default position by historians – that for reasons variously of method, theory, and politics the past is 'a foreign country' inaccessible in its own terms to those of us from the here and now. History is what we recover from the past; what we make of it, in the present, and history always interprets, constructs and creates what it takes to be the now-past objects of its study – even when we are considering something as 'present' as the Internet. History is, therefore, an investigation of all the usual deep questions of life about human behaviour, social action, cultural meaning and so on, but with an acute attention to the relationship of then and now, when we were, and when we now are. I should add too: history might be popularly understood as something done by trained people, historians; but we all 'make history' in the sense of trying to understand our place in the world via attention to the past.

Let me also note: 'history' is often used to mean something rather more deterministic, in the modern sense of 'History' with a capital H (think Fukuyama and the 'End of History'). I am not interested in this usage, which has become less common; but it is still something you may encounter. History here is probably best understood as 'destiny', which is perhaps why Marx famously suggested that humans make history with their own hands, even though the dialectical battles of economic structures and systems of production (e.g. labour and capital) can be seen as the inevitable 'historical' journey of human development.

There are, I think, three ways in which 'history' can be useful, as I will now explain.

CONTINGENCY

One of the most significant uses of history is to allow us to see that claims, in the present, about the inevitability, or unchangeable nature of, a phenomenon are just not true. We often encounter claims about what humans ought to do, or how they should live which are argued for on the basis of a presumption about human nature – that something is ‘just the way it is’. Since history throws up such a variety of counter examples, history allows us to disprove claims which assert that some action or activity is naturally the way things are. Of course, the claims are still made, but their basis – which is properly in the field of politics or morals - is revealed.

In Internet scholarship, I think, we can see how history might reveal that certain behaviours now associated with specific technologies, which are new, are not caused by those technologies; for the behaviours were already in existence, mediated by the Internet, but involving different technologies. Claims that ‘Facebook’ makes people do things they later regret (such as revealing information about themselves) can be critiqued by looking at the revelatory behaviour in former times on USENET, IRC and so on. Of course, this does not fully account for what *is* happening currently online, but provides an analytical approach which locates the activities we are now concerned with, in a framework of contingent circumstances: history shows us that nothing is a given, and everything we do might end up being different, should circumstances change.

DIFFERENCE

While I am no scientist – I am a post-positivist cultural critic and theorist, if you want to profile me – I do recognize the value of ‘experiments’ as a mechanism for research. Of course, research onto people can involve experiments, but only at the cost of simplification which – in affairs of human endeavour and social life – usually means the answers are not worth knowing. Short of some fantastical future world of artificial worlds in which we can model complex human social systems, changing variables as we like, we are left with only one way to compare and contrast what happens if circumstances are different: by reviewing historical situations that are similar to the ones we currently are investigating and seeking to explore, thereby, whether outcomes are similar or different, and on what basis.

I don’t mean this approach can be done in a ‘scientific’ manner (empirically); it is an act of knowledge construction, and one based often on sketchy and incomplete information. That said, if one were interested in contemporary communications practices relating to instantaneous communication, then a comparative analysis of research findings from the 1980s – which primarily concerned email – and from the 1990s – which primarily concerned chat, with some lesser attention to asynchronous discussion, might shed interesting light on questions about what is happening now. If one’s question is, essentially, what is the relative importance of the medium of communication on communicative practices, compared to (say) social circumstances, you might be able to discover continuities in practice over the past 30 years which emphasise the role of technology, not circumstance; at the same time (as I hinted above, under contingency), my suspicion is that you would end up with a stronger sense of how a particular alignment of time, place and technology creates behaviours.

HISTORIOGRAPHY

All good scholarship – a PhD in particular – draws on, expands, critiques and generally adds to the sum of prior scholarship. The literature review chapter is not just something to be ‘got out of the way’; it’s the bedrock of a good PhD. Indeed, in the kinds of work I supervise, the literature review

is not a chapter so much as an ongoing interaction in the thesis as a whole between the focus and intent of the current work and the broad, complex multi-threaded conversations of like-minded scholars over many years. Literature review is a *function*, not a chapter; its location in the final thesis is a matter of style and genre. And history is very important to good reviews of literature because one must always contextualize the scholarship of others so as to explain their presumptions, research interests and conclusions. The information we might take from others' research is only applicable to our own, after it has passed through a critical filtering process which understands that research in its own terms – what motivated it, what influenced it, what it purported to do at the time of its production.

Let me give you an example. In the 1990s, many important early articles, chapters and books were written that investigated identity and online activity, with a particular interest in the way identity was performed, created and maintained online in this 'new' environment (think, for example, of the often-cited 'On the Internet no one knows you are a dog' cartoon). While we might use this research now, in its own terms, what does the fact that so much scholarship concerned internet tell us of the motivations, fascinations, and general tenor of scholarly research into the Internet at that time? Firstly, I would argue, most of this research was being conducted under the more or less direct influence of the dominant paradigms of cultural critique in the Western world in the 1980s - the politics of identity. Replacing 'work', 'identity' had become the fetish object of researcher and scholars in many humanities disciplines – not least cultural studies – and thus the Internet was analysed as 'another' location for the struggles to assert and maintain identity as a political act. Whether this was really what people did online is another matter; scholars found what they needed to find.

Of course, I am not suggesting identity was irrelevant. Indeed, it was crucial. But why? The research questions of the 1990s were, I think, so deeply concerned with identity because – until that time – identity had been so normatively tied to physical presence and interaction. What the historiography of internet research in the 1990s tells us is that the radical breaking of this tie which the Internet appeared to grant, the 'alterity' of cyber engagement from the 'real world', produced a positive and valuable alignment between researchers' presumptions about the important questions to ask, and the social and cultural questions which emerged from the Internet itself.

What we must avoid, I believe, is either ignoring scholarship from earlier periods (and, with the Internet everything changes rapidly!), or in just 'using it' as if there is no change at all, as if it remains relevant today just because it is on the same topic as we are studying. Instead, prior Internet scholarship can do double duty: telling us *how* the Internet was perceived, and understood - which is itself most important – and then allowing us to generate new insights by bringing both scholarship and context into dialogue with our own work.

CONCLUSION

So, before I turn to discuss a couple of the more challenging, and difficult aspects, of 'history', let me sum up by saying that – even for a social phenomenon as young as 'the Internet', an historical sensibility is very important. Your research may not be 'history': but awareness of the historical dimensions of your work is crucial. Such awareness aids in contextualizing how things came to be the way they were, exploring the contingency of present action (thereby to discern more clearly what might be its causes and real effects), reviewing differences which emerge by temporal comparison, and always being conscious of the historical locatedness of the scholarship on which

you are drawing. But, of course, there are some challenges in 'thinking historically' which I will now explore.

Why history can be misleading I: The myth of origins

One of the most common and not unexpected purposes to which 'history' is put, is the quest for the moment in the past when something began, a desire which I am sure is all too human to understand the origins of some contemporary and important phenomenon. The search for origins is of course common within the work of Internet scholarship. The relatively novelty of the Internet – and the fact that its putative origins are therefore quite recent – has not stopped several historians, Janet Abbate being the most significant, from analyzing and describing how the Internet commenced.

I am sure you all know the broad outlines of the story. At least in its most common telling, the Internet 'originated' in the coming-together of two lines of military-industrial computer and communications research in the 1950s and 1960s. First, there involved the conceptual breakthrough away from direct communications approaches, linking remote locations through a single shared switching centre via a circuit held open at the same time for both receiver and sender. Researchers such as Paul Baran at RAND Corporation theorized that communications involving messages sent over a decentralized, interconnected grid of communications links rather than through central switches and servers would be more likely to survive damage from a nuclear war in which main communications hubs would be destroyed quickly. Such messages could be sent in packets, broken down at source, sent over various routes with pathways adjusted to meet emerging conditions of damage or interruption, for later reassembly at destination. Second there involved the desire to distribute, in real-time but across considerable distances, the then-scarce computing resources of research universities and institutes so that researchers not physically located with those computers could nevertheless use them. And of course while scientists in several countries were developing these approaches and building computer networks, the origination story of the Internet focuses on the most successful of these developments, the ARPANET built in the USA in the 1960s and 1970s.

Such stories, when they are properly amplified bring into play many other important aspects of the origins of what we now know as the Internet: the importance, for example, of the fact that Licklider, reputed grandfather of the Internet, was not a computer scientist but a psychologist and linguist who was less interested in computers as artificial intelligences and more interested in the man-machine symbiosis to offload mundane data tasks from humans to computers. They tell of the sudden emergence – unexpectedly – of email and other networked human-to-human communications whose capacity to connect researchers to other researchers soon became as important as the desire to connect computers to other computers. They tell of the peculiarities of the fact that most people building the Internet in its early days were younger graduate students, less interested in what to do with the net, and more interested in the network itself such that the network became its own research object. Such stories - which of course know the outcomes of the path of development – are especially interested in the way the Internet Protocol became the established, dominant form of internetworking, usually pointing to the 'can-do' immediacy of the US military's needs which led to the adoption of IP over OSI in the 1980s.

As it happens, I am an avid and interested consumer of such stories – partly personal passion, partly professional presumption. And, at one level, they are useful, informative and

important. But the question we need to ask is: what is the purpose of this search for origins? And, moreover, we must be cautious about the way that telling the story of 'origins' serves to create a particular kind of history, which has consequences for the way we might use that history. Indeed origin stories are – like the stories of far-distant times – mythical. They are not false, they are not made up. Myths of origin, like all myths, have much that is associated with the 'truth' of the past (were such a thing objectively available); they do reflect 'what happened'. But, origin stories are mythical in the sense that the goal of the history – to identify, delineate and present 'when something commenced' - creates a specific framework for the historical story which changes subtly the meaning of what is presented as 'the story of what happened'. It becomes a particular and partial account of the past that, quite apart from any deliberate mistelling, or accidental ignorance of relevant details, is always already biased by the narrative structure necessarily imposed upon it by the search for origins. Put simply: to ask the question, 'when, how and why did this phenomenon originate?' presupposes a kind of historical story whose meaning is determined as much by that question as by the quest upon which the interrogator of times past then embarks.

Furthermore, origin stories always tell us as much about the times in which they are written and the mindset of those writing them as about the past. For, like it or not, whether for explicit propaganda or simply because of the way historical consciousness guides contemporary action, the 'origin' of a phenomenon is taken into the present and used as part of arguments about what that phenomenon now is, or should be. The search for origins is therefore not only a question which shapes a particular route into the past for contemporary explorers; it is also a quest – rather like the quests which are often the subject of the myths of the earliest days of human culture (be they from Greece, China or Persia or elsewhere). The quest for origins is largely about recovering some specific 'truth' from the past circumstances of what we now have in our lives so as to guide us in its proper uses, to enlighten us as to the true course of its future development, or to embolden our claims as to its political value. And, most important of all, historical writing about the Internet – whether from historians, or anyone else for that matter – is always a contest to see which of several possible 'origin stories' becomes the dominant, or prevailing 'myth' in contemporary society of how and why we have this curious, complex, fascinating beast, the Internet.

So, to return to the story of the Internet's origins, I think it is fair to say that this story – in all its variations, small and large, gets told to us first of all on the basis of knowing, in advance, that we have ended up with the Internet in its current form. Second, the prevailing myths of origin were influenced by the politics of the emergence of the Internet into broader public view - most of which were developed and amplified and became accepted in the 1990s at a time when most people – including slightly surprised governments - were witnessing the emergence of the Internet and saying 'where on earth did *this* come from?'

Let me explain briefly. I have a very different 'origin' myth for the Internet (and remember, of course, there is no one true story of what happened; it's not that there is no reality, just that its recovery into the representations to ourselves of that past reality always involves acts of translation and interpretation rendering each variation less than 'true', while some more cogently demand our agreement than others). The first part of this story concerns everything but the Internet as we now know it, and the way it was conceived in the manner we think of as normal. Whatever was happening inside ARPANET to link together scarce time-sharing computers for advanced scientific research, with the spinoffs of communication protocols and the formation of

'the net' as something to be developed in and of itself, telecommunications companies around the world were carefully assessing and trialling the manner in which computer-based information services could be deployed through their existing infrastructure; they were also experimenting with new forms of networking for improved voice and even audiovisual display. As the dominant owners of the network hardware, and the dominant (even monopoly) players in the field of interactive communication (the telephone as symbol, not the TV), telcos had been inventing the Internet for many, many years: they just didn't call it that. Existing dominant media content producers – notably newspapers and cable TV operators in the USA – were also exploring 'new media' involving telephone or cable connectivity and computer mediation to deliver content on demand, or interactively. Such arrangements were often in partnership with telcos. And enterprising computing companies (or what were to become computing-communications companies) were busily building networking for human interaction, information sharing and the like – GeNIE, Prodigy, and so on, effectively providing commercial versions of the nascent hobbyist bulletin board movement. It would be fair to say that each of these three approaches constituted a planned, and organized attempt, to deploy computer mediated communication and information exchange for the kind of 'online services' that the Internet now stands in for. The technological aspects of each development were probably less important than the cultural and economic.

Into this world there erupted, in the early 1990s and especially after the WWW was developed, the Internet. Rapidly, the Internet subsumed hobbyist computer bbs; it became a new focus for attention for news and cable TV operators who, nevertheless, rapidly fell behind in their understanding of it and capacity to control it as they had wished; it also derailed the business modeling of the telecommunications companies who, though continuing to develop what they saw as 'real' computer-based systems which would be deployed in due time, and according to their plans and expectations, leapt on the opportunity to build public interest in online services by promoting dialup (and later broadband) internet access. The extent to which the Internet 'disrupted' things can be judged from the rapid demise of the Microsoft Network (MSN) – developing slowly through the early 1990s, it rapidly turned into a brand for Internet services as Microsoft realized that it was too late – the djinn was already out of the networking bottle. (ONAustralia). So my origin myth is of the accidental development of the Internet, decentralized and uncoordinated, at odds with all the other developments which have, however, still come to play a central role in the Internet.

Now let me turn to the purpose, or reason for, origin myths; my example in this case is the persistent story – common in the 1990s – that the Internet originated in military research and was, somehow, stolen away by users and turned to other ends. While it is undoubtedly true that money from the Department of Defense, through ARPA and later DARPA, was part of the funding of the Internet's development, and military needs were being considered, there was much more going on than that and, in truth, there is a relatively tenuous connection between the Internet and the military (far more than, say, the development of virtual reality simulators or many other aspects of contemporary culture). The particular emphasis given to the 'repurposing' of the Internet, though, was not an historical fact, or a misreading of history. The apparent and received purpose of historical stories doesn't rely on historical accuracy. Rather, it reflects the times of the creation and circulation of the stories. And, in the 1990s, when the Internet was still largely associated with alternative culture, political liberalism, and the exploration of worlds 'beyond' normal society and politics, the idea that this new frontier of human development (think 'global minds', 'cyberculture', independence of cyberspace etc) was somehow 'stolen' from the military had appeal, and had the advantage of reinforcing the idea that the technologies involved were *not*

controllable, could not be subjected to discipline and management and would, inevitably, allow kinds of personal liberation that reflected or mimicked the 'liberation' of the Internet itself. It was a heady mix of technological determinism, idealism and self exploration. Indeed the history of the history of the Internet tells us a great deal about the way society embraced and adopted the net in the 1990s.

So, in conclusion, let me draw on my own 'origins' as an academic, where I had something of a career as an historian, with an interest amongst other things in the way 'Australia' came to be, as a nation and culture, in the contemporary world. The origin of Australia is multiple, and resistant to final determination. The historical story of 'Australia' is, indeed, a contest over what dominant story is told to people about 'where Australia came from' and 'how it came into being'. For many years, the coming to Australia by people from Europe was conceived as 'discovery' 'settlement' and 'development' as if what was here before was, literally, 'nothing'. So firmly rooted was this story that the unpicking of it, and the change to recognize the prior occupation, rights and cultures of the indigenous Australians took some 30 years and is still not complete in the minds, cultures and politics of contemporary Australia. The historians of Australia for such a long time told a story which started with the fact that white European settlement was self-evident and simply looked back to discover when this had started; in doing so, they created a political foundation for the rightness of that settlement and all that had occurred because of it, by writing out any other kind of 'origin'. That is the problem of history – it is always, to some extent, concerned with the origins of the world we now inhabit; yet that world was never necessarily the one that would have eventuated, nor are all those involved in the story equally and fairly represented in that story of origins because they are not equitably treated in the world of today.

Why history can be misleading II: Arbitrary periodicity

Much of my current thinking and research concerns the phenomenon which we call Web 2.0. Indeed we live, apparently, in the era of Web 2.0 – a period in history which is characterized by those who write most enthusiastically about it as involving human culture in a dramatic shift in the way we explore, exchange, engage with knowledge through a participatory, democratic, individuated media culture of contribution and co-creation. When, though, did this period start? Can we, indeed, say when this phenomenon started? What are the temporal dimensions of this period and might we already be at its end, moving into an era of Web 3.0?

Having outlined for you the dangers inherent in the quest for origins (and in the paper which was circulated to you, having given you some ideas of my own about the origination of Web 2.0 in its current mythic form – to be published later this year), I will not of course attempt to explain or argue for the particular timing of the 'Web 2.0' era. Rather, I raise this question - what is the start of the Web 2.0 period? – to alert you to another of the great dangers of history-making: arbitrary periodicity.

Periods in history are all too common. History is a continuous story, or indeed collection of innumerable small stories bound together into more or less coherent and explicit narratives describing and explaining the past. However, most of us naturally think in terms of discrete periods whose start and end points are somehow significant markers of change. So, I think all of us would assume we live in the Information Age, as opposed to the Industrial Age. Sometime around the 1970s, perhaps a little earlier, perhaps a little later, advanced societies underwent a kind of

phase shift - what Toffler called the Third Wave – in which the generative force in society, the most important sectors of human life, began to reflect the dominance of information, information processing and technologies of information rather than the fore-going dominance of machines of physical production. Negroponte, of course, put it better: from atoms to bytes. Perhaps more obviously, we see historians far and wide, and histories as lived and experienced stories in society, always being organized in this periodising fashion: the first course I did at university was ‘Late Modern European History: 1789-1945’. Colleagues in my early time as an historian described themselves as ‘medieval historians’ or ‘ancient historians’ – in reference to when they studied, not their social persuasions or their ages! Finally, all of us who have written history – particularly for doctoral theses – have wrestled with the question of ‘what date do I use to finish this damn thing?’ and often connive at a cleverly explicable period in history to do so, while realistically we have more immediate temporal concerns as our time of enrolment ticks to down and our supervisors demands to see the final copy.

Periods are a necessary and useful generalization in doing and reading and thinking history. Clearly, there are useful stories to be told, and analytical moves to be performed, by identifying from the apparently unbroken continuity of past affairs specific periods which are characterized by general tendencies, or social activity, that mark them out as *different* to other periods. Such periodicity also carries with it the necessary step of identifying the reasons for change, promoting or even requiring explanation. Thus, the real value of understanding the world in terms of an Industrial Age and then an Information Age is that it demands attention to the reasons why such generalizations might be supportable in the first place (for example, how is it that industrialization in one place, on a small scale, might come to be so widespread that it is even possible to describe humans as living in ‘an industrial age’); and also to the reasons why one period might be seen to end and another begin (for example, in what ways did information come to replace physical goods as the predominant basis for the economies of many Western countries?).

However, periodicity is, largely, an arbitrary exercise. Periods do not exist; they are invented and deployed as story-telling devices by historians and come to take on an independent existence only after the fact, not during the times which they are used to delineate. Periodicity tends to conceal three important other aspects of the historical story also. First, we can forget the importance of continuity – that, as much as we look for change, things do not in fact change, though perhaps our way of viewing them does. (The change is in perspective, not in the thing itself). Second, periodicity avoids consideration of what I would call pre-emergence – where something which later comes to be significant, at some point in time, was nevertheless already important, but just not identifiably so, because of other social and economic arrangements. Third, periodicity – in the pursuit of a generalization to give explanatory force to arguments about change – overlooks or even actively represses contradictions and contests. There is no sudden shift from period to another. Indeed, periodicity might even describe shifts in inevitable dialectics, rather than single occurrences such that one period in history is simply a time when one form of political and social life appears to achieve some kind of dominance, yet all the while alternatives continue. Sometimes these alternatives consist of the roots for the *next* periodisation, such that the triumph of modernity of pre-modern forms of social organization in the 19th century in many parts of the world implicitly involves the emergence of contradictory tendencies associated with the post-modernity which is commonly thought to come after the modern.

Three examples of each. First, **continuity**. The Internet has commonly been associated, along with other so-called forces for globalization, with the end of the nation-state’s central relevance to world affairs. However, there is extraordinary continuity in the power and extent of

the nation, even in a globalised world. Nations have become adept at framing national policies and practices that respond to threats to their sovereignty, reinscribing themselves into the domain of world-spanning communications and media. For example, in responding to the rise of global gambling online, Australian legislation reasserted the primacy of the nation in determining how and when Australians could gamble online, even going so far (along with other nations) to formulate moves to constrain the operations of global capital flows through credit cards to limit online betting and gaming. The effectiveness of such moves may or may not be questioned; but the continuity of the state as key actor cannot be. Second, **pre-emergence**. We hear a lot of participatory culture in the contemporary world of the Internet. However, though limited by the extent of access in previous years, there is nothing inherent in the so-called Web 2.0 period which has brought participation into being. Much is made of the use of Twitter in contemporary Iranian politics; the same was said for blogging in events in Iraq; but, as an historian, I am conscious of the fact that participatory media culture, involving citizen reporting of events from repressive regimes in times of crisis, dates back at least to the early 1990s when the incipient coup against Gorbachev in Russia was reported mainly via USENET from ordinary Russian citizens. In another example, it has been argued that the start of the Information Age was, in fact, in the early 18th century when insurance started to become a distinct economic activity in European capitalism; insurance relied on information and the maintenance of records in a way that pre-figured what we normally imagine to be a much later phenomenon. Third, **contradictions**. Web 2.0 privileges the wisdom of the crowds, the excessive contribution of content without the kind of organizing productive forms of previous media eras; Web 2.0 is thought to replace the 'big user' centric forms of Web 1.0. Yet, we also live in a time of continued focus on the Semantic Web, whose epistemological foundations and presumptions are inconsistent with Web 2.0. The period of Web 2.0 may actually be a period which, in the future, we see as entirely consistent with everything Web 1.0, from which emerges something radically different through the coming-to-being a artificially intelligent processing of content.

Let me sum up, then, by saying, the historical imagination – the desire to know the past, understand it, and find both the continuities and disjunctures between it and now always carries the burden and pleasure of delimiting periods in time which it can be argued such and such was a defining or dominant quality of life. These periods work productively to enforce on historians the requirement for arguments about change and similarity; yet they occlude many other aspects of the past. And, in their reception and easy use in society, as if they are fact (rather than analytical operation), they lead to over generalization, and ignorance of the complexity and multiplicity of the links between times, rather than the gaps which we like to imagine are created. As just one example of the pervasiveness of periodic thinking – and its dangers – consider the contemporary enthusiasm for 'Gen Y' and other such appellations to temporal groupings, generations, of defining qualities and characteristics.

Historicity – being who you are 'in history'

Key idea: People live in the contemporary world, in a dialogic relationship to times past and times to come. More or less depending on what they are doing, the particular state society is in, and their reflexivity, people experience life through historicity – through consciousness of 'being in time'.

Being in history; harder to explain in relation to the Internet since there are limited available historical moments. An example from another field: nation-states always have a profoundly historical dimension to their existence, justification, and meaning. Indeed, the idea of a 'myth of

origin' which I discussed above has particular relevance to nations, all of which come into being in contested, challenging circumstances and yet which must maintain their legitimacy as political entities.

Historicity is about the way history operates, explicitly, in the present to constitute meanings for people about and through their experiences which articulate past, present and future. So, national participation in centenary celebrations, national holidays commemorating the past, attendance at museums, and so on are all ways in which a society and its citizens both acquire 'history' and experience their lives *as* historical.

I am not entirely sure yet how to understand this phenomenon in relation to the Internet, but would offer the following possibility. The historicity of the Internet is enacted, perhaps paradoxically, through an insistence of looking forward, rather than back; of experiencing one's place in time by reference to what is still to happen, rather than what has already occurred. This is an effect of the broad discourse of the inevitable historical march of technology, onwards and forwards, liberating humans from need and want, fulfilling desires and always offering more (a kind of hyper capitalist techno-fantasy of modernist fulfillment through the development and acquisition of new tech toys); this discourse has a particular power in relation to computing technologies, for we now know that all technology is, actually, imperfect – it has bugs, it is under development, new versions will always appear, and whatever the thrill of today, there will be a new and better thrill just around the corner for us to buy. Technological determinism and consumer capitalism find their most profound expression in the knowledge that one will always have to replace your current version of something with a *new* version. O'Reilly's choice of "Web 2.0" was pretty obvious, wasn't it? What else would he label his call to arms for a renewed emphasis in thinking on the internet as web of computing, rather than an internet for better phone and TV? But, I think, our little exercise in the workshop has also shown how – in many different ways – we all have a 'personal' history of the Internet which creates historicity for our current actions too.

History as Discourse

what is believed true of the past acts as if it were true

Key idea: We might, intellectually, question and critique the apparent truth of 'history', yet this very critique reveals that historical truths influence our world regardless of whether or not they are 'true'.

The final point I would make, to bring this seminar to a close, is that throughout today's work I have attempted to reinforce a key idea: that, whatever happened in the past, our histories – stories *of* the past – are never an objective representation of those happenings. Undoubtedly, we can use methods of recovery and review to attempt, within a positivist approach, to create a more or less accurate picture of the past, but it is always a picture, created in the present, and not of the past. Applying the insights of post-structuralism, and taking a more interpretivist approach to the way we know the world, it is equally important to look at how history is truthful, in the real sense of the word (having 'truth effect'), because of the way the story is told, the coherence between understandings in the present and what we 'expect' to find in the past, and whether the story aligns with dominant social political truths. Whether intended or not, history always tells us about the time of its creation, and recreation, as well as the past about which it is written.

But to assert that histories are contingent in this manner, and produce their truth discursively rather than through objective representation, is *not* to assert either that all historical interpretations are equally valid, nor that history doesn't seem to be true. The point of post-structuralism is that truth matters – perhaps even more than we had thought – and so the origins of 'truthfulness' cannot be taken for granted.

As a final example, think about Web 2.0. It is relatively easy to demonstrate that there are numerous inconsistencies and contradictions involved in the 'origins' of Web 2.0; clearly too Web 2.0 'pre-emerges' at least as far back as the late 1980s; there is considerable consistency between the so-called Web 1.0 and Web 2.0 periods; and the origin myths of Web 2.0 are clearly artificially constructed, in a most interesting example of someone consciously 'creating' a history for their own ends, historicising web development even while experiencing it. Yet, is it not true that - for all intents and purposes – Web 2.0 is true? Don't we all act as if there has been this 'sea-change' in the Internet, even if we are a little hazy about its commencement?

In the end, history is formed from language, and the meanings we draw from it and the truth that we ascribe to what we know about the past therefore emanate from both the structural dynamics of knowing-through-language and the social regimes of power and knowledge which define the limits of linguistic indeterminacy. History always has a purpose, whether deliberate or not; history always implies both a past and a future. And history works by selection, narrative coding and emphasis, taking from the array of possible, known and presumed 'facts' of the past, those elements which create a story rich in description and in explanatory power for how we came to be from where we were. Such selection always represses or 'forgets' some aspects of the past, creating an unstable binary between the present and absent fragments of the past; from this binary, at least some of the time, productive meaning making can occur.