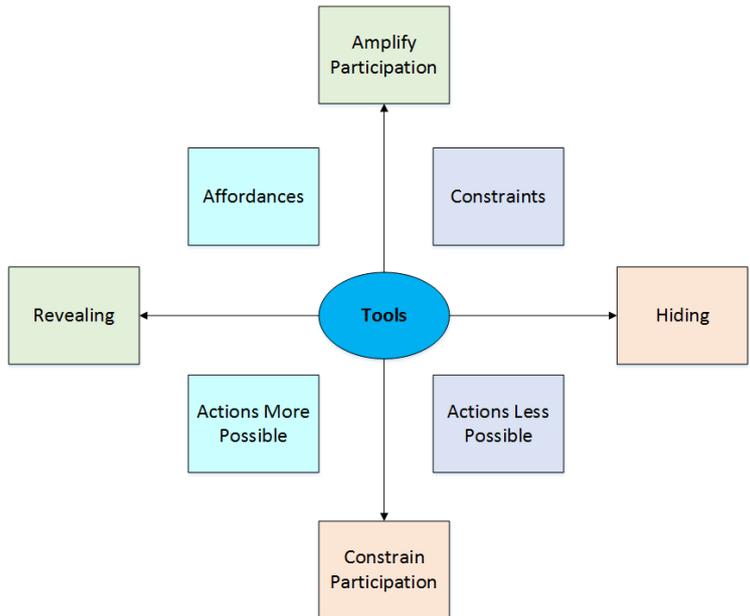


Lecture Thirteen: Affordances & Constraints

	<p>Introduction: Blondie – Hanging on the Telephone https://youtu.be/qhgNpAwvcgY</p>
	<p>Exam Format: 2017</p> <p>Section A: Compulsory</p> <ul style="list-style-type: none"> • Network Culture • Collaboration • Play & Gamification • Participation <p>Section B: Four from Eight</p> <ul style="list-style-type: none"> • Affordances & Constraints • Spreadable Media • Collective Intelligence • Future Media • Multimodality • Media Sharing • Music Sharing & Participation Power • Cultural Ownership <p>Reading: Delwiche, A & Henderson, J.J. (Eds.), <i>The Participatory Cultures Handbook</i>. London: Routledge. Jenkins, H., Ford, S., & Green, J. (2013). <i>Spreadable Media</i>. New York: New York University Press. Jones, R. H., & Hafner, C. A. (2012). <i>Understanding Digital Literacies</i>. London: Routledge. Rheingold, H. (2012). <i>Net Smart - How to Thrive Online</i>. Cambridge, MA: MIT Press. [Look for the E] on the lecture notes section on the TECH1002 DMU Commons Wiki Page]</p> <p>Past Papers: http://www.library.dmu.ac.uk/Resources/ExamNet/ [Search for TECH1002]</p>
001	<p>Affordances & Constraints</p> <pre> graph TD SI((Social Identities)) <--> SR((Social Relationships)) SR <--> T((Thoughts)) MO((Media Operation)) <--> CE((Creative Engagement)) CE <--> MED((Media Encoding/Decoding)) ML[Media Literacies] <--> SI ML <--> SR ML <--> T ML <--> MO ML <--> CE ML <--> MED </pre> <p>“Using media is a rather complicated affair that influences not just how we do things, but also the kinds of social relationships we can have with other people, the kinds of social identities we can assume, and even the kinds of thoughts we can think. When we talk about being able to use media in this broader sense, not just as</p>

the ability to **operate a machine** or **decipher a particular language or code**, but as the ability to **creatively engage** in particular **social practices**, to assume appropriate **social identities**, and to form or maintain various **social relationships**, we use the term **'literacies'**" (Jones & Hafner, 2012, p. 12).

Jones and Hafner state that the "main problem with both digital sceptics and digital utopians is that they often focus on the technology itself without paying enough attention to the social contexts in which it is used and the intention of those who use it" (Jones & Hafner, 2012, p. 99).



Jones and Hafner argue that there are four ways that media can exert control over us. The first is on the basis of the "affordances and constraints" that different forms of media offer. According to Jones and Hafner, "different tools make some actions more possible and other actions less possible." In this way media is able to reveal the way that the world works around us, while at the same time hiding some of the functions of the world. Media can, according to Jones & Hafner, "amplify participation in certain kinds of special practices and social groups, and constrain participation in others."

002

Affordances & Constraints – The Telegraph

The telegraph and telephone are good examples of how a media and communication technology that has been developed that has allowed users to emphasise the new things that the telegraph and telephone offered that were not expected by the original inventors.

As Jones & Hafner describe, "people tend to be more focused on the new things it enables them to do rather than the limitations it might impose." Though this can is also possible the other way around.

Tele

Greek tēle- 'far off'.

Telegraph – writing at a distance

Telephone – speaking at a distance

Television – seeing at a distance

Telecoms – telecommunications media, eg telephone & internet networks

003

"The telegraph, in conjunction with the railroad, provided the setting in which modern techniques for the management of complex enterprises were first worked out. The telegraph was the first product – really the foundation – of the electrical goods industry." (Carey, 2006, p. 225).

"The railway was intimately associated with developments in communications technology, particularly the electric telegraph and the telephone. These technologies inaugurated simultaneous communication and a

	<p>phase of 'time-space convergence'" (Stein, 2006, p. 246).</p> <p>Technology In Antebellum America https://youtu.be/U544H6Mlx80</p> <p>"The innovation of the telegraph can stand metaphorically for all the innovations that ushered in the modern phase of history" (Carey, 2006, p. 226).</p> <p>"Before the telegraph, 'communication' was used to describe transportation as well as message transmittal for the simple reason that the movement of messages was dependent on their being carried on foot or horseback or by trail" (Carey, 2006, p. 226).</p>
004	<p>"The telegraph... not only altered the relation between communication and transportation; it also changed the fundamental ways in which communication was thought about... It opened up new ways of thinking about communication within both the formal practice of theory and the practical consciousness of everyday life" (Carey, 2006, p. 227).</p> <p>"The telegraph, widely hailed at the time of its introduction as the 'noiseless tenant of the wilderness'... There were other technological marvels of the mid-nineteenth century, but qualitatively different from, other inventions. The key to the mystery was, of course, electricity... Electricity was, in standard terms of the day, 'shadowy, mysterious, impalpable. It lives in the skies and seems to connect the spiritual and the material'" (Carey, 2006, p. 228).</p>
005	<p>"Before the telegraph, business relations were personal; that is, they were mediated through face-to-face relations, by personal correspondence, by contacts among people who, by and large, knew one another as actual persons. The overall coordination of these atomic relations and transactions was provided by the invisible hand of the market" (Carey, 2006, p. 228).</p> <p>"With the telegraph and, of course, the railroads and improvements in other techniques of transport and communication, the volume and speed of transactions demanded a new form of organisation of essentially impersonal relations" (Carey, 2006, p. 228).</p> <p>Telegraphy - Information "The telegraph provided the decisive and cumulative break of the identity of communication and transportation. The great theoretical significance of the technology lay not merely in the separation but also the physical movement of things, specifically the railroad. That is the fundamental discovery: not only can information move independently of and faster than physical entities, but also can be a simulation of and control mechanism for what has been left behind" (Carey, 2006, p. 234).</p> <p>Telegraphy - Distance "The telegraph provided the decisive and cumulative break of the identity of communication and transportation. The great theoretical significance of the technology lay not merely in the separation but also the physical movement of things, specifically the railroad. That is the fundamental discovery: not only can information move independently of and faster than physical entities, but also can be a simulation of and control mechanism for what has been left behind" (Carey, 2006, p. 234).</p> <p>Telephone - Globalisation "Improved communications in the nineteenth century were accompanied by greeted global interdependency" (Stein, 2006, p. 247).</p> <p>Telegraphy - Time "The disembedding of time from social activities as it becomes significantly stripped of meaning; the breakdown of time into a larger number of small units; the emergence of the disciplinary power of time; the increasing timetabling and hence mathimatisation of social life; and the emergence of a synchronised measure of life across national territories and later across the globe with the development of Greenwich and 'world time'" (Lash & Urry, 1994, p. 229).</p>

	<p>Telegraphy - Business</p> <p>“As the railroads spread across the [American] continent, the variety of local times caused enormous confusion... The solution was to establish standard time zones” (Carey, 2006, p. 239).</p> <p>“The control of time allows for the coordination of activity and, therefore, effective social control” (Carey, 2006, p. 240).</p>
006	<p>Affordances & Constraints – The Telephone</p> <p>According to Wikipedia, the “concept of the telephone dates back to the acoustic (non-electrical) string telephone or "lover's telephone" that has been known for centuries, comprising two diaphragms connected by a taut string or wire.” This device carries sound waves as “mechanical vibrations along the string or wire from one diaphragm to the other.” This can be demonstrated with the classic children’s toy, the tin can telephone, in which the two ends of a string are attached to the “bottoms of two metal cans, paper cups or similar items. The essential idea of this toy was that a diaphragm can collect voice sounds from the air, as in the ear, and a string or wire can transmit such collected voice sounds for reproduction at a distance.”</p>
007	<p>When the telephone was first shown to work successfully by Alexander Graham Bell (1876), the initial public demonstrations gave people the opportunity to experience the transmission of voice over distance as a novelty at fairs. Initially the telephone was regarded as a mere improvement on the telegraph, and the earliest installations were as a point-to-point form of communication, in which the sender of a message was expected to be linked directly with the receiver of the message. It was only later with the invention of the telephone exchange that individual subscribers were able to join a growing ‘network’ and be connected to other users of the network without being directly connected to the other subscriber.</p>
008	<p>In its early days the function of the telephone was not fixed in its use as a business and communication tool. For example, the théâtrophone, which, according to Wikipedia, can be traced to a telephonic transmission system demonstrated in 1881 in Paris, was an alternative system that allowed the broadcasting of concerts or plays by arranging 80 telephone transmitters across the front of a stage to create a “form of binaural stereophonic sound.” This was possibly the “first two-channel audio system, and consisted of a series of telephone transmitters connected from the stage of the Paris Opera to a suite of rooms at the Paris Electrical Exhibition, where the visitors could hear Comédie-Française and opera performances in stereo using two headphones.”</p>
009	<p>Initially the telephone was promoted to business in order to save time and to improve efficiency. When the market for the telephone was expanded to include home telephone devices, the nature of the type of calls changed as well. From initially using the telephone to give remote instructions, the telephone became a device that would allow people to talk and maintain relationships that they might have otherwise maintained in person. As a result the nature of the social relationships would change, and people would move away from the centres of cities to the suburbs, where chance encounters with friends were less likely.</p>
010	<p>Initially people were sceptical about the privacy of the telephone system, especially as many were installed on a group subscription basis as a ‘party-lane,’ with the unavoidable temptation to listen-in to other people’s private conversations. Indeed, the telephone also added to an enhanced sense that the pace of social life was accelerating, and that the isolation that many experienced through new forms of urban living could be augmented with a new set of social contacts managed through the telephone. In some instances people felt that the potential for interruptions and the loss of privacy was too much, with many people complaining about “too much gossip, about unwanted calls, or, as did some family patriarchs, about wives and children chatting too much.”</p> <p>Norman Rockwell - 1894 – 1978 THE GOSSIPS http://www.sothebys.com/en/auctions/ecatalogue/2013/american-art-n09048/lot.16.html</p> <p>The telephone was able, therefore, to bring news, both wanted and unwanted, and with this enhanced capacity to hear news there was a heightened state of alertness and anxiety as people listened-out for the telephone to ring. Sociologist Sidney Aronson suggests that the feelings of most telephone users can be summed-up when he suggested that having the telephone leads, overall, to a “reduction of loneliness and anxiety, and increased feeling of psychological and even physical security” (Fischer, 1992, p. 247).</p>

	<p>Sherry Turkle on her book "Alone Together," the internet and solitude. https://youtu.be/nxt9RLjbaeo</p>
	<p>Yazoo - Bad Connection https://youtu.be/FIRB4E5nuEw</p>
011	<p>Jones & Hafner: Affordances & Constraints According to Jones and Hafner “the process of mediation and the tension between what tools allow us to do and what we do with them is fundamentally the same whether you are using pencil and paper or a word processing programme. What is different... are the kinds of affordances and constraints digital tools offer and the opportunities they make available for creative action. In many ways, digital media are breaking down boundaries that have traditionally defined our literacy practices” (Jones & Hafner, 2012, p. 13).</p>
012	<p>Jones and Hafner point out that digital tools now allow us to work in different ways than we might have worked in the past. They have accelerated and enhanced our ability to work in the following ways:</p> <p>Across time and space – we are no longer as dependent on being situated at a specific place of work in order to achieve many knowledge based tasks, and contributors to that work may be scattered across time-zones and geographic boundaries.</p> <p>Use of language – the manner in which we symbolise and interact is shifting, especially as it becomes possible to produce and distribute multimedia content in visual or audio forms so much more easily. This gives us the ability to manipulate images and sounds as easily as we can manipulate text. We therefore need to embed an appreciation for the skills of manipulating these forms of communication into our routines and practices.</p>
013	<p>Expert and amateur – with the rise of collaborative and collective forms of knowledge management and distribution we are no longer subject to the controlling influence of a small number of people who are regarded as experts. As the internet has been designed to bypass blockages and bottlenecks, this means that information is distributed more widely in a rhizome or web rather than as a system or pathway. This means that non-experts can contribute to the discussions and can find and use alternative sources if they are not satisfied with the traditional expert view.</p>
014	<p>Participation and consumption - to use the web effectively means that individuals have to have a level of competence to be able to produce and share content. Participating in small-scale or large-scale social networks is only effective when the participant is actively producing content and is engaged in the production process. This means that the literacy skills we require are not simply those of passive interpretation, but are geared towards being an active producer of content.</p>
015	<p>Authority of texts and remixes and mashups - if more people are able to engage and co-produce media material online then the role of the text as a complete and homogenised entity is undermined, and instead users engage with one another by sharing their remixes and the products of their cultural jammings. This may involve taking an established cultural form and reworking it, regardless of the copyright restrictions, and sharing it within networks of similar remixers and co-producers.</p> <p>Weakening of work based hierarchies – as the collaborative potential of the internet is practiced it becomes necessary to adopt different working practices that are less defined by systemic placement and are more clearly the product of contribution and the willingness of individuals to participate in a project. The formation of social networks, such as the open source movement, allows for the decentering of tasks, with a management process that is based on contributions to the common good as opposed to instructions from an executive form of management.</p>
	<p>Recap:</p>
016	<p>Affordances & Constraints - Changes to How We Communicate We used to: Use postal service, land-lines, Visit people</p>

	<p>Now we also: Send text messages, leave voice messages, use instant messaging services, write emails, talk through headphones, use mobile telephones, play online video games, use online phone technology, and use the Internet and all it offers</p>
017	<p>Time & Social Control “The control of time allows for the coordination of activity and, therefore, effective social control” (Carey, 2006, p. 240).</p>
018	<p>“The telegraph could send time faster than a railroad car could move; and therefore it facilitated the temporal coordination and integration of the entire system. Once that was possible, the new definitions of time could be used by industry and government to control and coordinate activity across the country, infiltrate into the practical consciousness of ordinary men and women, and uproot older notions of rhythm and temporality” (Carey, 2006, p. 241).</p>
019	<p>“The penetration of time, the use of time as a mechanism of control, the opening of time to commerce and politics has been radically extended by advances in computer technology. Time has been redefined as an ecological niche to be filled down to the microsecond, nanosecond, and picosecond – down to the level at which time can be pictured but not experienced” (Carey, 2006, p. 242).</p>
020	<p>“The goal of a good society should be to enable human beings to realise their potentialities to the fullest. The most important question to ask about modern societies is therefore what understanding of human life is embodied in the prevailing technical arrangements. I argue here that current technical arrangements place limitations on human development” (Feenberg, 2002 p.19).</p> <p>“Insofar as one is enrolled in a technical network, one has specific interests corresponding to the potential for good or harm such participation entails” (Feenberg, 2002 p.20).</p> <p>Network Behaviors to Leverage Network Effects As a network adds connections, between and beyond organizations, and those connections in turn add their own connections, the overall reach of the network can easily shrink geographic and other forms of distance and separation. The subsequent ability of participants to discover and work with one another across expanses and barriers means that new partnerships and ideological convergences can happen, leading to greater efficiency, shared intelligence, and innovation. http://interactioninstitute.org/network-behaviors-to-leverage-network-effects/</p>
	<p>Recap: Affordances of Tele...</p> <ul style="list-style-type: none"> • The telegraph and telephone are part of a media history that open up possibilities of change. • The purpose of communication technologies is to allow message-exchange without being physically co-present as in face-to-face communication. • The electric telegraph allowed real-time communication across long distances for the first time – significant new power ‘to collapse time and space’. • Digital media continue to extend this by offering a virtual way of life, being physically present in one space, but mentally or emotionally engaged ‘elsewhere’. <p>http://www.vulture.com/2015/10/30-best-pop-songs-about-telephone-drama.html#</p> <p>Lady Gaga - Telephone (Radio Edit) ft. Beyoncé https://youtu.be/lgpQzLPWiKY</p>
	<p>References:</p>

Carey, J. (2006). Technology and Ideology: The Case of The Telegraph. In R. Hassan & J. Thomas (Eds.), The New Media Theory Reader. Maidenhead: Open University Press.

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