

## TECH1002-17 Social Media & Technology

### Lecture Twenty-Two – Network Smarts

#### Cloud Atlas - 23 - Cloud Atlas End Title

[https://youtu.be/mXttp8\\_xSHQ](https://youtu.be/mXttp8_xSHQ)

#### 1 Network Culture

We live in a world, according to Howard Rheingold, that is dominated by networks. So, what is different about social life in online networks?

#### Howard Rheingold on Collaboration

<https://youtu.be/4lY-r19nBoE>

##### 1.1 Why Networks Matter - Rheingold Chapter Five

We live in a world, according to Howard Rheingold, that is dominated by networks. As we seek to understand how these networks affect us we are able to assess the way that we maintain our relationships and communicate within both face-to-face and technologically mediated network communications. The affordances of the internet are able, according to Rheingold, to “amplify the reach of traditional social networks to make new forms of sociality possible” (Rheingold, 2012, p. 192).

The role of online networks, according to Rheingold, support existing social networks that “share properties of more general network structure as well as the specific properties of human networks” (Rheingold, 2012, p. 192). In this sense, what we might consider as a global network is in fact really a series of “small-world networks” that act as an extension of our human social networks (Rheingold, 2012, p. 193).

##### 1.2 Bridging Networks

As we document the use and the development of online networks, according to Rheingold, it is possible to look at the shape of networks in different ways and reduce the apparent randomness of social interaction and connections that seemingly proliferate.

According to Rheingold, “networked individuals benefit from having at least a small number of connections to networks that are distant (and different) from their immediate neighbours – and it is even more useful if they are the only person who can bridge the two networks” (Rheingold, 2012, p. 193).

##### 1.3 Technically Mediated Networks

Rheingold outlines Manuel Castell’s principles for social networks in a technically mediated society:

1. Networks are global and information is instantaneous.
2. Networked organisations outcompete command-and-control bureaucracies.
3. The networking of civil and political institutions is an emergent response to a crisis in the governance of the nation state.
4. Networks of activists are reconstructing civil society at local and global levels.
5. Networked individualism, virtual communities, and smart mobs are redefining sociality.
6. Media space – the public space of our time – now encompasses the whole range of human social practices.
7. In the network society, power continues to be the fundamental structuring force of its shape and direction, but power does not reside in institutions, it is located in the networks that structure society.

#### **1.4 Alternative Networks**

In Castels view, and according to Rheingold, “networks are no longer simple, rigid, or tightly bounded as power elites have been throughout history.” In-stead, “alternative networks now disrupt and contend with older power structures” (Rheingold, 2012, p. 202).

The challenge, according to Rheingold, is to figure out how the changes that the network society represents are beneficial and predictable, and in what way they support more democratic practices despite the ubiquity of the use of in-formation that is reshaping our sense of the world.

#### **1.5 Managing Connections**

The question, according to Rheingold, is how we think about and manage the ties and relationships in these emerging social networks, and how we develop the skills and the know-how to manage the connections that we make, how we think about the strength or the weakness of these connections, or how they “add more value than they destroy” (Rheingold, 2012, p. 208).

To this extent Rheingold encourages that we should take a critical stance to our networks, so that we are better able to understand how our online activities give us “pleasure”, how they are “empowering”, and how they are embedded in “economic, political and social relations” (Rheingold, 2012, p. 208).

### **2 Collaboration**

According to Jason Mittell “wikis have become one of the hallmarks tools of the participatory Internet.” The key attributes of participation in wiki use consist of a number of principles.

#### **Collaborative Technology: Wikis**

This video is by Mark Bailey, David Buhler, and Lathan Lawson of the Jon M. Huntsman School of Business at Utah State University in Logan, Utah. We present information relevant to the use of wikis in business and how they help increase performance both internally and externally.

<https://youtu.be/O1dVXuMPBBU>

#### **2.1 Collaboration, Wikis & Participation: Delwiche & Henderson Chapter Four – Jason Mittell**

According to Jason Mittell “wikis have become one of the hallmarks tools of the participatory Internet” (Mittell, 2013, p. 35).

A wiki is a good examples of an electronic tool that allows people to manage knowledge within an organisation because it is based on collaboration, sharing and co-development, rather than delineated expert knowledge that is maintained through internal processes of hierarchal endorsement, such as professional qualifications and roles.

#### **2.2 Collaborative & Formative Knowledge**

A wiki offers emergent knowledge communities the opportunity to share and to collaborate in the formation of knowledge, and to regulate the flow of personal information as well as the flow of formal information. A wiki, according to Mittell is “never fixed or static” (Mittell, 2013, p. 37), as it is based on “com-plex system [that] emerges out of decentralised individual participation” (Mittell, 2013, p. 37).

#### **2.3 Mittell’s Principles of Wikis**

Jason Mittell defines the principles of wikis as being characterised by a sense of Freedom, Transparency, Fluidity, Emergence and Collective Intelligence.

## 2.4 Freedom

Wikis are therefore open to a wide range of uses beyond traditional forms of knowledge organisation, and they can be used for collaborative authoring, projects, organising documents or sharing information. Wikis are non-hierarchical and are open to different contributors to create and post entries. Readers of wikis are free to navigate the pages via hyperlinks, key word searches, random pages, and so on, without a defined 'route' through the wiki (i.e. a contents page).

### **A Framework for evaluating wikis as a medium for communication within engineering design teams**

Wikis, freely editable collections of web pages, exhibit potential for a flexible documentation and communication tool for collaborative design tasks as well as support for team design thinking early in the design process.

<https://engineering.purdue.edu/cdesign/wp/a-framework-for-evaluating-wikis-as-a-medium-for-communication-within-engineering-design-teams/>

## 2.5 Transparency

Wikis show and track what changes have been made to an entry and by who. As a community of users this is non-hierarchical and promotes non-hierarchical working based around the discussion components of the wiki that allow contributors to edit, re-edit and compare different versions of an entry while posting. Any contributor can make and edit an entry, without a 'hierarchy' enforcing an editorial policy. If there is a dispute then it is discussed in an open manner. Wikis trace and show the work that went into producing them.

### **How WikiLeaks Changes the Face of Government Transparency**

Love it or hate it, WikiLeaks has begun a campaign to open the world's governments and to enable people to see how things work in more direct, transparent ways. <https://www.concordiatechnology.org/blog/2016/11/how-wikileaks-changes-the-face-of-government-transparency>

## 2.6 Fluidity

Wikis are easy to display content that can be read on a wide range of browsers. Wikis can be edited and updated easily, while linked to different pages, sources of content or external media files. Pages in a wiki are always changing and being updated. Contributors then 'watch' a page to see if it is added to or amended by other contributors.

## 2.7 Emergence

Wikis are not organised centrally, and they are not planned. They rely instead on the posting of entries by participants who decide between themselves which entries should be made. The reader is free to navigate a wiki in a similar manner. The principles that shape the wiki are decided on by the users who form the community of interest based around the subjects and the topics covered. Disputes are managed through a process of resolution and compromise, which looks to other sources of information as a point of expression in an ongoing debate.

## 2.8 Collective Intelligence

Wikis allow for the tracking and discussion of ongoing projects. In this way wikis open up the possibility that we can manage a project by pooling the collective resources and knowledge of the different user's active in the project.

So, rather than relying on a centralised management authority to validate the knowledge demonstrated in a wiki, the users and the readers of a wiki are able to discuss and add comments and suggestions for improvements, and to mark instances of information that is yet to be verified for later

updates. In this way a wiki is said to be able to exceed the capabilities of the individual and produce a wider-ranging model of knowledge that draws on a cognitively diverse range of sources.

## **2.9 Pooled Expertise**

Wikis can be used, according to Mittell, as an “effective platform for encouraging participation for [people] to pool their expertise.” They can do this with a relative degree of anonymity that helps to promote a less hierarchical view of status among contributors, as experts receive the same visible status as casual users.

## **3 Play & Gamification**

Electronic games, according to Jones and Hafner (Jones & Hafner, 2012), have evolved to be rich multimedia experiences based on complex problem solving, often integrated with a narrative or with other players who can interact in real time. So, what are the key attributes of video games?

### **Gamification in Education**

<https://youtu.be/nYnbapB5Yl8>

### **3.1 Play & Gamification – Jones & Hafner Chapter Nine: Participation**

According to Jones and Hafner games differ from other forms of media as they are a relatively new invention that are played on many different types of de-vices, such as personal computers, smartphones, games consoles, and tablets.

Electronic games, according to Jones and Hafner have evolved to be rich multimedia experiences, based on complex problem solving, often integrated with a narrative or with other players who can interact in real time.

### **3.2 Affinity Spaces**

Jones and Hafner note that electronic gaming is supported by a range of “affinity spaces” that have emerged as a compelling social virtual environment in which “video game fans can congregate and discuss their favourite games, share tips, and modifications of games and watch gameplay videos called ‘ma-chinima’” (Jones & Hafner, 2012, p. 129).

### **Daft Punk - The Grid (Alcala Remix)**

[https://youtu.be/wzIU\\_yc01nQ](https://youtu.be/wzIU_yc01nQ)

### **3.3 Active & Critical Learning**

Criticism of video games, according to Jones and Hafner, often focusses on the gender stereotypes that are portrayed in games, as well as levels of violence and the problem of ‘addiction’. Jones and Hafner suggest, however, that it is possible to focus on the positive affordances of video games, and the way that video games are able to promote “active and critical learning” (Jones & Hafner, 2012, p. 129).

### **3.4 Games Categories**

Quoting Steve Johnson, Jones and Hafner point out that video games have become more complex and demanding, and can be characterised as fitting within a set of categories and forms:

1. Are situated in some kind of virtual game world.
2. Tell a story in that world with the player as the central, active participant.
3. Involve the player in various kinds of problem solving in order to achieve the goals of the game.
4. May involve the player in collaborating with others in order to achieve the goals of the game.

5. May offer the player the possibility to customise the game in a major way by modding the game and designing new levels.

### **3.5 Multimodality**

Jones and Hafner describe how video games are characterised by a “highly multimodal” experience, in which the iconic visual elements of the game are conveyed through sound, colour and music, as well as movement and action.

Video games give users a range of ways of making meaning, and can therefore be seen as new kinds of texts that tell new kinds of interactive, embedded stories that are created by the choices of the designer, on the one hand, and the user on the other.

Video games are comprised of texts that combine a variety of modes: visual, verbal, aural, textual, etc., that players must make sense of as the different modes combine and as the user encounters the many ‘cues’ that a game offers.

The interactive quality of a video game, according to Jones and Hafner therefore is dependent on the meanings that are associated with the representation of the game world, and the interface design that enables action in the game world.

## **4 Participation**

Jenkins, Ford & Green (Jenkins, Ford, & Green, 2013) explain how media is being transformed both by technology and by the expectations of audiences, who now want a greater degree of “meaningful participation.” So, what are the main attributes of media participation?

### **Henry Jenkins on Participatory Culture**

University of Southern California media scholar Henry Jenkins describes how educators might fuel civic engagement by tapping the skills their students build in interest-driven online communities.

<https://youtu.be/1gPm-c1wRsQ>

#### **4.1 Participation – Jenkins Chapter Four**

Jenkins, Ford & Green explain how media is being transformed both by technology and by the expectations of audiences, who now want a greater degree of “meaningful participation” (Jenkins et al., 2013, p. 153). The argument is, according to Jenkins, Ford & Green, that the new technology of social media enables people to move from being simply consumers of media to being producers of media.

Users of media technology are therefore put forward as an active form of media participation, even though some of these practices might still be regarded as less active than others. According to Jenkins, Ford & Green the introduction of new forms of media technology, with their vastly lower “barriers to entry,” they enable forms of cultural production that involve greater skill and a wider sense of participation in the process of production that goes beyond the model of media consumption that had previously been dominant.

#### **4.2 Unlocking Potential**

While Jenkins, Ford & Green are aware that there are many people who are just simply listening or watching mass media products, they argue that there is sufficient potential in the wider sense of participation in social media technology that people are no longer “locked out” of meaningful participation, but at least have opportunities to expand and develop their own media creation and use.

### **4.3 Competing Frames of Participation**

The change that Jenkins, Ford and Green summaries is expressed in the distinctions between “competing frames” of activity, including:

- Lurking versus legitimate peripheral participation.
- Resistance versus participation.
- Audiences versus publics.
- Participation versus collaborations.
- Hearing versus listening.
- Hearing versus listening.
- Consumers versus co-creatives.

### **4.4 Citizens Power**

This framework of change in the idea of participatory media suggests, according to Jenkins, Ford and Green, that there is a “struggle between conflicting and perhaps contradictory pulls – between a corporate conception of participation (which includes within it a promise of making companies more responsive to the needs and desires of ‘consumers’) and a political conception of participation (which focusses on the desire for us all to exercise greater power over the decisions which impact the quality of our everyday lives as citizens)” (Jenkins et al., 2013, p. 156).

### **4.5 Mass-Media Passivity**

According to Jenkins, Ford & Green “much as the media industries have long sought ways to ‘passively’ measure audience engagement, fearing the ‘subjectivity’ which occurs when audiences become co-creators of audience data, the Web 2.0 paradigm – for all its empowering rhetoric – increasingly rests on the passive collection of user preferences” (Jenkins et al., 2013, p. 176). Alternatively, according to Jenkins, Ford & Green, it is possible to conceive of audience activity in different ways, and to reimagine the idea of ‘passivity’ by acknowledging that media audiences are “publics with the capacity to reshape” the media they interact with (Jenkins et al., 2013, p. 176).

### **4.6 Spreadability**

At the heart of the “spreadability model” of media participation put forward by Jenkins, Ford & Green, is the “idea that audience members are more than data, that their collective discussions and deliberations – and their active involvement in appraising and circulating content – are generative” (Jenkins et al., 2013, p. 176).

This means, according to Jenkins, Ford & Green, that is media that is created in this new model “doesn’t spread, it’s dead” (Jenkins et al., 2013, p. 188), and if it can’t be “quoted” then it might not mean anything.

### **4.7 Quotable Material**

According to Jenkins, Ford and Green, “The social practices of spreadable media necessitate material that is quotable – providing easy ways for audiences to be able to excerpt from that material and to share those excerpts with others – and grabbable – providing the technological functions which make the content easily portable and sharable” (Jenkins et al., 2013, p. 188).

Based on the sense of involvement that comes through the spreadable media model, Jenkins, Ford & Green argues that participatory culture is a “vital step toward the realisation of a century-long struggle for grassroots communities to gain greater control over the means of cultural production and circulation.” Therefore, according to Jenkins, Ford & Green, “if we see participation as the work of publics and not simply markets and audiences – then opportunities to expand participation are struggles we must actively embrace” (Jenkins et al., 2013, p. 193).

## 5 Collective Intelligence

The benefit of collaborative and collective action, according to Howard Rheingold, is that people are able to coordinate, share, and pay attention to their common goals. So, what are the main features on online collective intelligence?

### Collective Intelligence

Robert Dilts describes some of the basic features of Collective Intelligence and provides insights regarding how it benefits individuals as well as groups and organizations.

<https://youtu.be/lvif1Tcldd8>

#### 5.1 Collective Intelligence – Rheingold – Chapter Four.

Howard Rheingold outlines how “mass collaboration has transformed not only the way people use the internet but also how information is found” (Rheingold, 2012, p. 148). According to Rheingold it is now common that information, systems and media are now designed, produced and shared collaboratively within virtual communities.

#### 5.2 Digital Citizens

Rheingold suggests that the “knowledgeable digital citizen ought to know how virtual communities, wikis, and other varieties of mass collaboration work – and how to join in the fun” (Rheingold, 2012, p. 148). Mass collaboration is seen by Rheingold as a way of conducting the business of human endeavour in a way that is more effective, more engaging and more widespread.

#### 5.3 Cooperation

While Rheingold suggests that “competition is still important,” he suggests that it is likewise becoming increasingly important to “make room for what we now know about cooperative arrangements and complex interdependencies in ecosystems, economies and societies” (Rheingold, 2012, p. 149).

According to Rheingold virtual communities are “technologies of cooperation” (Rheingold, 2012, p. 151) that enable people to collaborate more effectively because they are able to coordinate, share and give attention to their common goals. As Rheingold describes, “collaborators develop and agree on common goals, share responsibility and work together to achieve those goals, and contribute to resources to the effort” (Rheingold, 2012, p. 154).

#### Technologies for collaboration and cooperation

Whether we’re working or learning, how we communicate is a key part of everything we do. Some web tools hinder communication while others may enable it. <https://jarche.com/2011/04/technologies-for-collaboration-and-cooperation/>

#### 5.4 Principles of Collaborative Participation

Rheingold describes Elinor Ostrom’s principles of collaborative participation in virtual communities that override “basic social dilemmas by constructing systems of norms and self-policing social contract” between collaborators (Rheingold, 2012, p. 152).

A self-governing group, according to Ostrom is one that takes account of several emergent design issues:

1. Groups boundaries are clearly defined.
2. Rules governing the use of collective goods are well matched to local needs and conditions.
3. Most individuals affected by the rules can participate in modifying the rules.
4. The right of community members to devise their own rules is respected by external authorities.
5. A system for monitoring member's behaviour exists; the community members themselves undertake this monitoring.
6. A graduated system of sanctions is used.
7. Community members have access to low-cost conflict resolution mechanisms.
8. For common pool resources that are parts of larger systems: appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organised in multiple layers of nested enterprises" (Rheingold, 2012, p. 152).

### 5.5 Setting Common Goals

According to Rheingold, knowing the difference between the terms "coordination, cooperation and collaboration" is essential to develop working strategies for collective action (Rheingold, 2012, p. 153).

The benefit of collaborative and collective action, according to Rheingold, is that because people are able to coordinate, share, and pay attention to their common goals, they are able to create "something that none of the collaborating parties could have benefited from without collaboration." This is because "collaborators develop and agree on common goals, share responsibility and work together to achieve those goals, and contribute resources to the effort" (Rheingold, 2012, p. 154).

### Desperate Journalist - Control (Official Video)

<https://youtu.be/xNwQTRLHTE8>

## 6 References

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