NEW NETWORK THEORY

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General Introduction: Rethinking Network Cultures

The object of study has shifted from the virtual community and the space of flows to the smart mob. When the object of study changes, so may the distinctions that dominate, particularly the schism between place-based space and place-less space, both organised and given life by networks. We would like to exploit the potential of writing contemporary network theory that suits and reflects the changes to the objects of study that come to define our understandings of network culture – a post-Castellsian network theory, if you will, that takes technical media seriously. It is time to look for elements that can make up a network theory outside of post-modern cultural studies (which marvelled at the place-less place) and ethnographic social sciences (which reminded us of the ground). What network culture studies needs is a ›language of new media‹, perhaps even signage, to speak in terms of Lev Manovich; what it currently has is a science-centered ›unified network theory‹, to paraphrase the language of Albert-László Barabási. Whilst it may come as no surprise to critical Internet scholars, the notion that networks are not random but have underlying structures remains the key insight for network scientists. Instead of posing new questions, the work that follows from that insight often seeks to confirm that structure and its accompanying patterns, across more and more network-like objects. The question remains which specific contribution critical Internet scholars and practitioners can make to opening up network thought. Such is the purpose of the network theory conference. How must we rethink network culture with a renewed emphasis on technical media and social software?

Suggested Topics:

- Networking and Social Life
- Social Software and Insider Networks
- Network Policy
- Network Governance
- Organised Networks
- Actor-Network Theory and the Assemblage Network Knowledge Production
- Networks and Disengagement
- Media Networks
- The Link
- Locative Media and Networks Mapping Quests

Other topics may be suggested.

Prospective Themes and Panels
Networking and Social Life

Networking, colloquially speaking, continues to be encouraged in our professional lives, but no one seems to have thought through how life would be guided if we apply network theory to professional networking rather literally. As network scientists' terms and ideas spread, it is of interest to speculate about one's social life governed by the power law, preferential attachment, hubs, self-organization, swarming and cascading effects. To network in a colloquial sense, essentially is to connect oneself with a hub. As the hub receives more connections (or becomes preferentially attached), the hub may become a superconnector, handling a disproportionately large number of connections relative to those of the other hubs in the overall network. As the network continues to grow through self-organisation, general knowledge of the existence of the superconnector may cause swarming behaviour. A superconnector, network science reports, has the greatest vulnerabilities, however. If the superconnector cannot handle the traffic, the network breaks down. If there's breakdown, with or without cascading effects, which determines the extent of the damage, you're on your own again. One implication is that one should continue to seek fresh hubs (as long

as they last), and keep them from becoming overheated superconnectors. Hub-seeking behaviour, along with superconnector-care, come to guide social life.

Social Software and Insider Networks

What if the social software model, which performs networking in private and public spheres simultaneously, came to dominate our social life? One could argue that we would witness the spread of insider influence. Would networking be the means by which we discuss and effect social change, above all else? Having registered with social software, your friends may write to you, asking you to associate yourself with them and their acquaintances in an online environment. You cannot see your friends' networks unless you join, too, making it something of a secretive realm at first. Invitations sent by the software are becoming more explicit about why you are invited, and the purpose of social software:

> Since you are a person I trust, I wanted to invite you to join my network on LinkedIn. I'm using it to discover inside connections I didn't know I had. It's interesting to see the level of access you can have with only a few people in your network.

It may be unreasonable to concern oneself with the prospect of everyone creating and building insider networks. The democratisation of insider influence (social software for all), however, seems contrary to (or perhaps helps to explain) the current infatuation with governance and transparency.

Network Policy

Moving to the level of social policy, we can ask about the effects of network-centric thought put into practice institutionally. We are used to the phrase, »it's company policy«, as a justification for a particular decision that has been taken for you. »It's network policy« is a phrase not yet in circulation. What if it were to change our ideas about what is ›social‹? Perhaps it was the accessibility of Barabási's *Linked* (2002) that prompted networks to be given to great expectations, ones they may not be able to meet and ones that may change our ideas about what is ›social‹. In *Linked*, the special case studies and stories that connected the small community of social network researchers for so long grew beyond the realm of familiarity, dependability and implication. Network research was no longer in the business of studying social influence only, and usually after the fact. Before, they asked: how did the Medici family increase its power base in Renaissance Florence (strategic marriage); which mid-western doctor should be approached by a pharmaceutical company to serve as the broker for spreading the word about a new product? With *Linked*, networks moved on to account for many other phenomena, including the spread of disease (HIV-AIDS). Since then network thought could very well lead to prospective planning; controversial action could be undertaken by employing a kind of 'network policy' that would supplant social policy.

Historically, waiting lists in hospitals, for example, were determined on the basis of first come, first served, where an extreme emergency would call for the queue to be jumped. With a network policy the hubs should be served first, as they have a greater chance to spread disease than the isolates. They are better networked.

Networked Multitude

Whereas networks hardly played a role in Hardt and Negri's popular book *Empire* (2000), in *Multitude* (2004) the network form of organisation reached centre stage. According to Hardt and Negri, »the multitude must be conceived as a network, an open and expansive network in which all differences can be expressed freely and equally, a network that provides the means of encounter so that we can work and live freely in common«. Beyond good or evil Hardt and Negri, like the scientists, now see networks everywhere we look – military organizations, social movements, business formations, migrations patterns, communication systems, physiological structusres, linguistic relations, neural transmitters, and even personal relationships. The *Multitude* authors present distributed networks as a general condition. Hardt and Negri:

> It is not that networks were not around before or that the structure of the brain has changed. It is that network has become a common form that tends to define our ways of understanding the world and acting in it.

After September 11, 2001 the enemy is not a unitary sovereign state, but rather a network, Arquilla and Ronfeldt wrote in *Networks and Netwars* (2001). Networks move in to failed states, taking them over, allegedly, but without re-establishing the borders. The enemy, in other words, has a new, sprawling form. But that particular military insight reverberates to the technical media, too. According to planners of the war against terrorism the Internet is not well equipped to face up to the networked enemy, at least not with its currently protocol. Is the end-to-end principle on which the Internet is based increasingly viewed as quaint architecture?

Dawn of the Organised Networks

At first glance the concept of ›organised networks‹ appears oxymoronic. In technical terms, all networks are organised. There are founders, administrators, moderators and active members who all take up roles. Think back to the early work on cybernetics and the second order cybernetics of Bateson and others. Networks consist of mobile relations whose arrangement at any particular time is shaped by the ›constitutive outside‹ of feedback or noise. The order of networks is made up of a continuum of relations governed by interests, passions, effects and pragmatic necessities of different actors. The network of relations is never static, yet is not to be mistaken for some kind of perpetual fluidity. Ephemerality is not a condition to celebrate for those wishing to function as political agents. The theory of organised networks is to be read as a proposal, a draft, a concept in the process of becoming that needs active steering through disagreement and collective elaboration. (Cf. the *Fibreculture* mailing list, discussion on organised networks in November/December 2004, www.fibreculture.org.) Needless to say, organised networks have existed for centuries. Their history can and will be written, but where would that bring us? The networks we are talking about here are specific in that they are situated within technical media. They can be characterised by their advanced irrelevance and invisibility for old media and p-in-p (people in power). General network theory might be useful for enlightenment purposes, but that doesn't answer the issues that new media-based social networks face. Does it satisfy to know that molecules and DNA patterns also network?

Truism Today: There are no Networks outside of Society

Like all human-techno entities, they are infected by power. Networks are ideal Foucauldian machines: they undermine power as they produce it. Their diagram of power may operate on a range of scales, traversing intra-local networks and overlapping with trans-national insurgencies. No matter how harmless they seem, networks bring on differences. Foucault's dictum: power produces. Translate this to organised networks and you get the force of invention. Indeed, translation is the condition of invention.

   Mediology, as defined by Regis Debray (1996), is the practice of invention within the socio-technical system of networks. As a collaborative method of immanent critique, mediology assembles a multitude of components upon a network of relations as they coalesce around situated problems and unleashed passions. In this sense, the network constantly escapes attempts of command and control. Such is the entropic variability of networks. Network users do not see their circle of peers as a sect. Ties are loose, up to the point of breaking up. Some would say the user is just a consumer: silent and satisfied, until hell breaks loose. The user is the identity of control by other means. In this respect, the ›user‹ is the empty vessel awaiting the spectral allure of digital commodity cultures and their promise of ›mobility‹ and ›openness‹.

Networking and Disengagement

Networks are everywhere. The challenge for the foreseeable future is to create new openings, new possibilities, new temporalities and spaces within which life may assert its insistence on an ethical and aesthetical existence. Organised networks should be read as a proposal, aimed to replace the problematic term ›virtual community‹. It should put the internal power relations within networks on the agenda and break with the invisible workings that made out the consensus era. Organised networks are ›clouds‹ of social relationships in which disengagement is pushed to the limit. Community is an idealistic construct and suggests bonding and harmony, which often is simply not there. The same could be said of the post-9/11 call for trust. Networks thrive on diversity and conflict (the

notworking), not on unity, and this is what community theorists were unable to reflect upon. For them disagreement equals a disruption of the ›constructive‹ flow of dialogue. It takes an effort to reflect on distrust as a productive principle. Indifference between networks is a main reason not to get organised, so this aspect has to be taken seriously. Interaction and involvement are idealistic constructs.

Passivity Rules

Browsing, watching, reading, waiting, thinking, deleting, chatting, skipping and surfing are the default condition of online life. Total involvement implies madness to the highest degree. What characterizes networks is a shared sense of a potentiality that does not have to be realized. Millions of replies from all to all would cause every network, no matter what architecture, to implode. Within every network there is a long time of interpassivity, interrupted by outbursts of interactivity. Networks foster, and reproduce, lose relationships and it's better to face this fact straight into the eye. They are hedonistic machines of promiscuous contacts. Networked multitudes create temporary and voluntary forms of collaboration that transcend, but not necessary disrupt the Age of Disengagement. The concept of organised networks is useful to enlist for strategic purposes.

Media Networks

After a decade of ›tactical media‹, the time has come to scale up the operations of radical media practices. We should all well and truly have emerged from the retro-fantasy of the benevolent welfare state. Networks will never be rewarded and ›embedded‹ in well-funded structures. Just as the modernist avant-garde saw itself punctuating the fringes of society, so too have tactical media taken comfort in the idea of targeted micro-interventions. Tactical media too often assume to reproduce the curious spatio-temporal dynamic and structural logic of the modern state and industrial capital: difference and renewal from the peripheries. But there's a paradox at work here. Disruptive as their actions may often be, tactical media corroborate the temporal mode of post-Fordist capital: short-termism. It is retro-garde that tactical media in a post-Fordist era continue to operate in terms of ephemerality and the logic of ›tactics‹. Since the punctuated attack model is the dominant condition, tactical media have an affinity with that which they seek to oppose. This is why tactical media are treated with a kind of benign tolerance. There is a neurotic tendency to disappear. Anything that solidifies is lost in the system. The ideal is to be little more than a temporary glitch, a brief instance of noise or interference. Tactical media set themselves up for exploitation in the same manner that ›modders‹ do in the game industry: they both dispense with their knowledge of loopholes in the system for free. They point out the problem, and then take off. Capital is delighted, and thanks the tactical media outfit or nerd-modder for the home improvement.

The Link

What constitutes linking, and how could we describe its mirror phantom, or rather, its shadow? The link as a reference to another informational object only comes into being as a conscious act. There is no automated process of putting links. And there is no unconscious or subliminal linking either. These could all be worthy scientific propositions but as of yet they do not exist. Linking is tedious work. It's an effort and should be considered ›extra work‹. There is no routine in linking. It's a precise job that needs constant control. But the opposite of the conscious link is not the broken but the absent link. What is the lifespan of links and networks?

Locative Media and Networks

The Internet has long been considered as the next step in the process of abolition of space and time constraints through media. Wireless and mobile media seem to have brought this process further along: people and places can be accessed anywhere any time. Paradoxically, the mobility of mobile phones, PDA's, portable game consoles, MP3 players and other devices have also re-introduced questions of space and place. ›Where are you?‹ is probably the most frequently used opening sentence of a mobile phone conversation. Activists, ›flash mobs‹ and soccer hooligans use mobile technologies to coordinate surprise actions at specific

places and specific times. Mobile technologies have moved computer games from the desk-top screen into the streets (e.g., Pack Manhattan). Geographical Positioning Systems (GPS) and Geographical Information Systems (GIS) have given the term ›navigation‹ back its old meaning: from ›surfing in cyberspace‹ (remember Netscape Navigator) it has re-acquired the meaning ›finding one's way through geographical and physical space‹. Streets, buildings, objects, animals and people can be ›tagged‹ in order to provide location-based and contextual information about their whereabouts, preferences, medical needs, bank accounts, sites, businesses, institutions, histories, and sales and discounts. Cyberspace and the so-called ›real world‹ converge into what Lev Manovich has called ›augmented reality‹, and in this ›augmented reality‹ it does matter where you are. Locative media allow people to map and share their own cartographies (which implies the dazzling theoretical possibility that there are as many maps as there are map-makers), but they also allow authorities to keep track of everybody and everything. Locative media (in combination with biometric technologies) might also give rise to two extreme forms of claustrophobia: on the one hand one might ask whether it will be possible to ever break out of one's own maps (a new variety of the Cartesian question), and on the other hand one might ask whether it will be possible to keep out of sight.