Communities in Context: Taking (Back) Control of Their Tools

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Introduction

Much R&D on communities and their technologies focuses on *intra*-community aspects: the community lifecycle, community governance & management issues like facilitation and conflict resolution, and community workspaces and tools. Communities revolve around shared interests, norms, and identity. It generally takes time to become admitted and fully accepted and acknowledged as a member. The boundary of the community is often defined sharply, as it is essential for it to keep and strengthen its identity. The world outside of the community is generally only defined implicitly. As a result, many communities treat their boundaries as solid and exclusive, when they should be permeable. No community consists in isolation, but is embedded in a much larger context.

Still, what is this context? What exactly is beyond the boundaries of communities? What is their role in the larger scheme of things? In particular, what role do the technologies that communities use play in enabling interactions beyond the boundaries? What effects do inter-communal issues such as inter-community governance and third-party social network tools have on the design of the socio-technical systems for networks of communities? In this paper, we outline a conceptual model of inter-community socio-technical systems governance. The purpose of this model is to help frame the complex socio-technical issues involving online inter-community collaboration. We do this by first presenting a conceptual model of inter-community socio-technical systems. We use this framework to analyze a concrete case: the drafting and supporting of the Internet for the Common Good Declaration, and show some of the shortcomings of current Internet collaboration.

Inter-Community Socio-Technical Systems Design

When zooming in on the role that technologies play in enabling communities, this almost community context-free view is often taken implicitly, from studying how blogs can improve (intra)community collaboration in education (Byington, 2011) to even how immersive virtual worlds can be used to grow

engaged communities (Twining 2007), with the world literally ending beyond its digital boundaries. Some research even puts the common identity and bonds between members as a primary focus for the design of online communities (Ren et al, 2007). These are valid and necessary research topics, but leave questions about the "inter-communal gaps" wide-open.

In the literature, work that does explicitly acknowledge the embedding of the community with the outside world has generally focused on the immediate organizational context of communities: how to align an organizational community with organizational strategies, objectives and practices, such as knowledge management through communities of practice (e.g. Wenger et al, 2002): how can conversational technologies, such as wikis, contribute to a culture of collaboration and innovation (and thus community building) within the organization (Standing and Kiniti 2011), etc.

However, in an ever more networked collaborative world increasingly working in The Cloud, two complicating factors are at work: (1) collaboration increasingly takes place in *networks of communities* raising complex issues about conflicting social norms, policies, and governance, very much affecting the requirements in the design and configuration of their tools. (2) who *controls* these community tools? The days are gone that a community installed its own server in an open Internet with open, stable protocols. Communities ever more make use of third-party social networking tools such as Facebook and LinkedIn. This means that they have only limited control over configuration and implementation of these tools. Full control means that a community can itself determine (1) what functionalities the the tool offers, (2) how they are configured, (3) how they are linked to other tools and (4) who has access to these functionalities.

To be able to zoom in on what exactly is going on, we introduce a conceptual model of inter-community socio-technical systems.

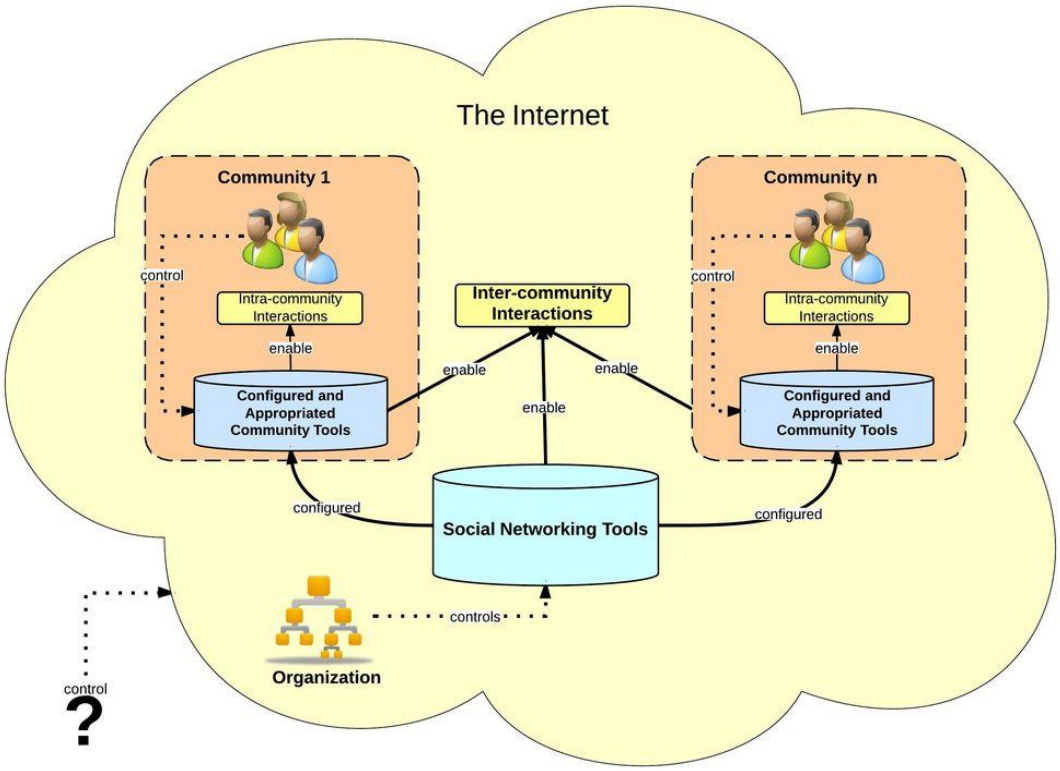

Figure 1. Inter-Community Socio-Technical Systems Design

The model expresses the following:

- Communities often have a whole range of physical (e.g. town hall meetings and face-to-face conversations) and digital tools to enable their interactions. In the early days of the Internet, these digital tools were often self-installed open source servers, fully controlled by their communities in that they provided the functionalities needed for the community to effectively use and appropriate the tools.
- With the arrival of The Cloud, communities increasingly depend on community tools that are part of social networking tools controlled by private parties. For example, many communities use Facebook or LinkedIn groups as their main online community space. The community can now only partly control these groups. For example, Facebook decides which functionalities are offered, what configuration options are offered and allowed, how its mashups appear on other sites, and who has access (you need a Facebook, not a community account, to access the functionalities).
- Things get even more complicated when inter-community interactions need to be supported. When two communities want to collaborate, on, say, a joint project, there's often literally no

space for that. It has to take place on either one of the current community spaces, a public third-party site is used, or a new private workspace needs to be created to which members from both communities need to subscribe, muddying governance. fragmenting collaboration before it's even started. Since "Code is Law" (Lessig, 1999), making (un)informed choices about seemingly abstract technical issues can have great impact on the legitimacy of and trust in the socio-technical systems of communities (Whitworth and De Moor 2003), let alone those serving interactions between multiple communities. In fact, we are only at the beginning of addressing bridging inter-community socio-technical gaps

- Finally, there is even more going on in terms of issues of control at the level of the Internet as a whole. The Internet was formed by a deep sense of community, leading to open protocols and an ethic of sharing (an excellent account of how this culture came about was given by Turner (2006). However, this open architecture and implementation is under threat by an increasing balkanization through walled-of cloud services, even jeopardizing the "generativity" of the Internet (Zittrain 2009). Huge political and commercial interests are at stake, but awareness is growing and a countermovement is building (e.g. CI community, 2013).

Communities Taking (Back) Control of Their Tools

Just to give a flavor of the issues involved, we briefly examine the case of how the An Internet for the Common Good declaration came about.

The idea for the declaration emerged in the Community Informatics Research Network (CIRN). This is a worldwide community of over a thousand researchers and practioners. Their main physical interaction tools are an annual conference, and many meetings between various constellations of members. Their digital infrastructure consists of a very active mailing list[1] for communication between members, and a wiki as its portal[2]. The mailing list is hosted by a community network, the wiki is hosted by Wikispaces. Both the list archives and wiki can be viewed by anybody, wiki edits can only be made by community members who have to be admitted by an administrator.

The declaration was prepared by the CIRN Community. To this purpose, an initial draft was posted as a on a wiki page[3]. Community members were invited through the mailing list to participate in further drafting, for which they needed an account on the wiki. The community as a whole was kept informed about progress on the declaration through the mailing list. Legitimacy to the community of the final declaration was ensured through a process of “lazy consensus”[4], by which consensus is assumed if nobody objects within a reasonable amount of time, in this case taking into account global time differences.

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[1] http://vancouvercommunity.net/lists/arc/ciresearchers
[2] http://cirn.wikispaces.com/
[3] http://cirn.wikispaces.com/An+Internet+for+the+Common+Good+-+Engagement%2C+Empowerment%2C+and+Justice+for+All
[4] http://nowviskie.org/2012/lazy-consensus/

Once accepted, the process of getting it signed and published got underway. Both individuals and organizations can sign through a Google Form which collects signatures in two Google Spreadsheets. Both spreadsheets are embedded on the wiki page of the declaration, showing individual and organizational signatories to the world. This page is currently widely advertised by the members of the CIRN and many other communities, using e-mail and various social media tools.

Several inter-community socio-technical issues come to mind:

- The declaration was developed within the CIRN community, but is to be signed by representatives and members of many other communities. The (technical) fact that one needs to be a CIRN member to be able to edit the wiki would have hampered involving members from other communities in the co-authoring (although in this case, the most pressing (social) reason for only involving the CIRN community in the drafting was lack of time). This is where the need for an inter-community space (e.g. virtually merging the memberships of all constituting communities) is clearly shown.
- The spreadsheets are maintained by administrators from the CIRN community. Sometimes, they have to remove signatures at the request of signatories or in case of spam Although they are trusted by the CIRN community, they may be unknown to members from other communities intending to or having signed.. Although the spreadsheets have a revision history, this is only visible to the administrators. However, there is no way to show edits in the signatures to the signatories, which may reduce inter-community trust.
- To involve members from other communities in the evaluation and further development of the declaration, the text needs to be discussed. Wikispaces has a discussion page associated with each wiki page which could be used for this purpose. With a restricted membership wiki like the CIRN wiki, such discussions are visible to anybody, but one needs an account on the wiki in order to post a comment or reply. Yet, in order to get such an account, one has to be a member of the CIRN community. A solution currently being worked on is to embed Disqus[5] widgets on the CIRN wiki. These widgets allow discussion posts by Disqus members, but also by guests, thus circumventing the limitations of the intra-community discussion functionality of Wikispaces.

Final thought

The purpose of this short position paper is not to provide an exhaustive analysis of, let alone a solution for the multi-level inter-community tool control problems. Rather, it is to draw attention to that communities exist in a very complex context of relations and interactions with other communities and multi-layered technical infrastructure, and that paying attention to socio-technical design problems and solutions matters.

[5] http://disqus.com/

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