

Chapter 1

Extending Social Network Diagrams for Large Scale Collaboration

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ABSTRACT

Planning and policy analysis activities in business and public enterprises require knowledge from many domains. The rich nature of this knowledge and its complexity requires users to collaborate to develop new policy directions acceptable to all stakeholders. Businesses also increasingly rely on networking and collaboration to create new products and services. This growing importance of such large scale collaboration in policy planning and business strategy formulation are calling for ways to use new communication technologies, especially those based on Web 2.0, to support enterprise wide and large scale collaboration.

Large scale collaboration in this sense goes beyond small teams collaborating on well defined local tasks but requires collaboration within and between communities in many enterprises. It is large scale as it can involve many people and applies to a number of different community kinds.

The chapter provides a way for modeling large scale collaboration using an extension to social network diagrams called enterprise social networks (ESNs). The chapter uses the ESN diagrams to describe activities in policy planning and uses these to define the services to be provided by cloud technologies to support large scale collaboration. This chapter describes collaboration by an architecture made up of communities each with a role to ensure that collaboration is sustainable. The architecture is based on the idea of an ensemble of communities all working to a common vision supported by services provided by the collaboration cloud using Web 2.0 technologies.

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INTRODUCTION: GROWTH OF LARGE SCALE COLLABORATION

The importance of collaboration and social networking is now increasingly recognized both in business and in wider policy planning. In business Pralahad and Krishnan (2006) see increasing importance of social structures in designing business systems. This is further substantiated by Cross (2009) who describes the kind of social relationships needed in business networking. The trend is also defined in Enterprise 2.0, which was introduced by McAfee (2006) in his article in the Sloan Management Review as a natural trend towards obtaining additional competitive advantage by using the new technologies available through Web 2.0. It sees a business environment where collaboration extends from groups and individuals to organizational units and whole enterprises. Similarly public enterprises faced with addressing the increasingly complex or wicked problems and rely on constructive collaborative to provide acceptable solutions.

Associated with this trend is the need to extend collaboration from supporting local teams to enterprise wide collaboration. This includes global organizations, open innovation systems, and what are increasingly known as wicked problems or ill-structured problems (Australian Government Publication www.apsc.gov.au/publications07/wickedproblems.pdf). These are problems where the solution is not initially clear but which focus on achieving a particular vision, as for example increasing global market share. They include health networks involving collaboration between distributed health units or the management of global supply chains. Rather than working to a specific goal such communities work towards a continually evolving vision.

In practice communities often do not thrive as a society of connected communities but simply as individual communities. Most communities operate independently using social software that

often supports one community as for example a community of practice. Many such local discussion systems focus either on a local problem or some global technical issue of interest to specialists but not to a global purpose. This is probably where Facebook is popular as it is an agent that presents a life to its originator – it can be in fact the center of life as is a often a mobile phone for an individual. However, each such community is independent of others, its intelligence is localized and there is little life as a society. There is considerable distributed intelligence but it is no way combined to provide a community direction. The question then is how to bring them together. Often these local communities “die” through lack of growth or because of changes in their environment. *The question then becomes how to create ICT systems that support local communities within global environments.* The paper addresses ways to maintain sustainable collaboration by proposing a systematic approach to identifying collaborative needs.

AN ARCHITECTURE FOR DESIGN

Figure 1 illustrates our approach. It shows what are currently loosely connected communities (Mintzberg, 2009) that collaborate to agree on a common vision. They can be communities within an organization such as planning groups, project teams, clients and policy groups. Often each community has its model or plan and must collaborate to integrate their plan with the plans of other communities. These communities work within an environment of highly structured operational systems to access operational data, share information about their plans, and where needed make decision on new directions to be followed towards achieving a community vision. The general scenario here is that the community members are provided with workspaces that include structured databases but also the communication facilities for collaboration. In this way they are enabled develop

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