Chapter 1
Cultivating the Value of Networked Individuals

Wolf R. Richter
University of Oxford, UK

David A. Bray
Massachusetts Institute of Technology, USA

William H. Dutton
University of Oxford, UK

ABSTRACT

The Internet and related digital networking platforms facilitate searches for information and the sharing of information and expertise among individuals. In recent years, these behaviours evolved from focusing on information retrieval and sharing to include facilitation and coordination of collaborative problem-solving efforts and distributed co-creation of services and products. Such collaborations, supported by digital networks, often extend beyond the traditional boundaries of organizations and institutions, the social networks of small groups, the subjects of specific disciplines, and the geographic borders of nations. Consequently, they raise concerns over how to best manage networked individuals and realize the potential utility of their activities. This chapter builds on the findings of a series of case studies designed to explore such questions. From the results of these case studies the authors propose a framework for categorizing ‘Collaborative Network Organizations’ (CNOs); one that suggests that value emerges as a result of cultivating particular kinds of relationships and activities within these networks. The authors employ the term ‘cultivation’, instead of management, as the case studies indicated that such efforts often fail if managed too precisely or too restrictively in a “top-down” fashion. Instead, the provision of greater latitude and “bottom-up” autonomy to the individuals involved characterized the more successful CNOs we studied. In addition, the success of CNOs depended on how such efforts reconfigured information and communication flows in ways that supported distributed sharing, generation, or co-creation of content within a wide variety of collaborative contexts, ranging from the conduct of scientific research to problem-solving in business and everyday life. Directly attempting to manage or control CNOs can undermine these networks, whereas indirectly influencing and cultivating desired behaviours and activities can encourage the expansion of productive networking. The authors offer this theoretical framework as a means for better capturing the mechanisms governing collaborative behaviour.

DOI: 10.4018/978-1-61520-797-8.ch001
INTRODUCTION: UNDERSTANDING THE VALUE OF NETWORKED INDIVIDUALS

The adoption and diffusion of the Internet and Web and related applications has greatly expanded the opportunities for distributed collaboration among individuals by facilitating the sharing of information and expertise across geographical and organizational boundaries. The collaborative creation of Wikipedia to a level comparable in quality to the Encyclopaedia Britannica, illustrates the potential for open co-production of a new product. Another prominent example is provided by ‘open source software’ (OSS) development, where individual programmers collaborate in producing software without receiving immediate financial rewards (Weber 2004). This productive activity defies conventional wisdom about the necessary incentive structures required for the production of high-quality computer software. Yet not all OSS efforts succeed. There have been major successes (e.g. the Linux operating system) and many failures.

A growing number of researchers view these kinds of developments as illustrating, in part, the value of tapping into the ‘wisdom of crowds’ – the idea that instances can occur where a large number of ‘ordinary’ people can outperform a few experts by sharing information and solving problems together (Surowiecki 2004). Our research sought to assess critically such a premise through a series of case studies designed to examine a wide spectrum of what we initially dubbed ‘distributed problem-solving networks’ and later, after a series of collaborative workshops to assess critically the analysis and comparative effectiveness of the different networks, dubbed CNOs (Chui et al 2009). Our research sought to assess critically such a premise through a series of case studies designed to examine a wide spectrum of what we initially dubbed ‘distributed problem-solving networks’ and later, after a series of collaborative workshops to assess critically the analysis and comparative effectiveness of the different networks, dubbed CNOs (Chui et al 2009). Our case studies focused on identifying: (1) the governance and incentive structures inherent in the design of these networks, (2) the appropriation mechanisms for the distributed value produced by the networked participants, and (3) success of such networks in terms of various performance measurements. A key objective for our studies included development of a model linking the structure, incentives, and processes of these networks to their associated performance outcomes, so that we could then assess when and where the activities of a metaphorical ‘crowd’ translated into outcomes of value to key participants.

This chapter starts by examining historical precedents to the new socio-technical organizational forms identified in our research, which we have called Collaborative Network Organizations or CNOs (Dutton 2008). We define a typology formulated through retrospective analysis of our case studies, followed by an outline defining how each case study fits into this framework. The findings emphasize the important role played by forms of governance in gaining value from CNOs. Our chapter concludes by developing two themes that arose from the case studies: (1) ‘cultivating the wisdom of networked individuals’ represents a more significant metaphorical lens than the notion of the wisdom of crowds; and (2) governance approaches of CNOs depend on the ways CNOs reconfigure access to information and people – i.e., the type of CNO they define.

HISTORICAL PRECEDENTS FOR COLLABORATIVE NETWORK ORGANIZATIONS

The emergence of CNOs represents the latest stage in a forty-year thread of initiatives using computer-based systems to harness distributed expertise. For example, the RAND Corporation developed Delphi techniques in the 1960s to reduce the bias created by influential individuals in the social dynamics of co-located face-to-face groups of experts. Difficulties in soliciting thoughtful responses from experts undermined the perceived value of such techniques, but they remain in use in a variety of contexts.

The potential for computer-based communication networks to enable the sharing of expertise