

Navigation at the Internet Front Line

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INTRODUCTION

“Internet” is an instance of a virtual and networked organization. We understand the meanings of virtual and network, however, in a broader sense than the specific meaning of information and computer technology (ICT). This chapter, in fact, is based on the interplay between such specific and general meaning associations. As a result of this interplay with the concepts of virtual and networked organizations and technologies, some emerging issues about Internet, as well as “NVOs” will be brought up. Our comments on these issues will hopefully draw attention to certain aspects of the Internet as one important example of the networked and virtual organizations. Some of these aspects would normally be considered as less related to scientific studies or knowledge than to other studies, or bodies of knowledge. For instance, some resources that we incorporate into our discussion are considered (social) science fiction.

First, we discuss issues related to teleological comprehension of Internet, and provide some examples of dilemmas and paradoxes associated with Internet technology, as background information. Next, we discuss cyberspace and metaverse, and potential space, in relation to the virtual and networked world of Internet. The main focus of our discussion, however, is the challenges and dilemmas associated with the virtual and networked organizational characteristics of the Internet, providing an example of such challenging dilemma. Furthermore, we provide a knowledge amphora (@) perspective to be considered for future

research on Internet and NVOs. In conclusion, for the encyclopedia readers, we hope the discussion in this short article provides some interesting inferences and implications for the NVOs, as an example of which the Internet is perceived and presented.

BACKGROUND

Rather than being based on a rigid hierarchical structure, the virtual and networked organization relies on inter-organizational information and communication networks, of which Internet is an important contributor and determinant. The combined forces of Internet, global communication, and advances in information technology make the virtual and network-form structure more possible, effective and necessary than ever (Diamondcluster, 2004). Besides, Internet, as a technology for social interaction, and as a virtual space for bond building and knowledge management, is a special example of NVOs. While earlier Internet tools were mainly designed for two-way communication, second generation tools are based on advanced support for multi-way communication, the information exchange of distributed, multiple agents, as semantically aware communication networks (Di Maio, 2006).

It is important to comprehend the essence of Internet and characterize its emerging properties, which can then be beneficial for our understanding and use of virtual and networked organizations. Below, as examples, certain teleological comprehension of Internet, and dilemmas and paradoxes associated with it are provided.

Examples of Teleological Comprehension of, and Dilemmas and Paradoxes Associated with the Internet

Today, as one teleological comprehension, the utopian view of Internet perceives the 'Internetworking' and the virtual world of Internet as 'good,' which is pointed out by Cooper (2004), with support from various previous works of other authors. For some of these authors, the Internet is good-on-balance, when the benefits and losses are weighted. For some others, there is something good about Internet beyond a simple summing up of benefits and losses. The Internet is seen as a 'vivisystem,' or 'Gaia' revealing a hidden connection between the natural and the mechanical. It is alive and developing a collective mind. Furthermore, the Internet's collective mind is seen as only a "minor foreshadowing of an end-of-time God, intelligent life connected throughout the universe." Human brain, which is a *virtual* reality generator itself, can be replaced by its Turing-machine essence in the future (Cooper, 2004; Deutsch, 1997; Kelly, 1994; Lovelock, 1988; Tipler, 1994).

This scenario is visualized in the movie series, "Matrix," specifically when "Neo" experiences becoming one with the matrix. However, on the other hand the "Matrix," in fact, is the ultimate technology and organization that controls all aspects of human life, where humans can live happy forever, unless they consciously choose to face the reality. Furthermore, in the science fiction series, "Star Trek," a technology called "HoloDeck" helps starship crew to interact within a virtual reality, which can have real life consequences. On the new "Battlestar Galactica" series, the machine race called "cylons" uses a similar technology of virtual reality. The organic human-like machines can experience the environment they live in their minds, and can change their environment as they imagine. As a result of these examples from science fiction, it would not be wrong to consider this connected intelligence and collective mind, the living system of the Internet, perceived by the utopians, as a networked and virtual organization on its own, as well.

Together with the Internet, various emerging paradoxes and dilemmas associated with it have begun to be discussed, as well. For instance, Harris (2002) argues capitalism's Internet dilemma, relying on historic roots. Robert Kraut and his colleagues (1998) analyze the Internet as a social technology that paradoxically reduces social involvement as well as psychological and

emotional well-being.¹ Raising people's awareness of the dangers of the Internet, and thinking about ways of ensuring their safety when meeting cyber friends in real life, become important issues for many recently². College instructors feel another kind of Internet dilemma, fearing to lose rights to their course materials, when they are made available online (Burdman, 1998). Also, certification of data and information exchange contains a paradox between privacy and security³. Certain organizations sneaking into information systems to spy on suspected users raises concerns about breaking the basic principles of human rights.

Finally, gambling and pornography are the two main occasions for the use of today's Internet. Güçlü (2006) asks whether the Internet is an angel or devil, questioning the rise of child pornography and other harms to society through Internet besides its obvious merits. Spaulding (2004, p. 116) questions, the issue of "child pornography created in virtual reality, in which no real children are affected." The question becomes, for Spaulding (2004, p. 116), "whether we find pedophilia objectionable because children are harmed or because it is morally and aesthetically offensive even in the abstract." What if we consider the idea that "all pornography is virtual reality. It allows people to fantasize without having to deal with the 'stuff' that comes with reality." (Spaulding, 2004, p. 116)

In that respect, all imagination and fantasy created in the mind can be considered as virtual reality. The "virtual reality" provided by the Internet basically contributes to the reinforcement of this virtual reality. Other explanations for virtual reality and Internet such as cyberspace and metaverse, and potential space are provided in the following section.

Cyberspace and Metaverse, and Potential Space

As Sterling (1992) discusses, John Perry Barlow adopted the term "cyberspace" (coined by novelist William Gibson in 1982) as "a synonym for the present-day nexus of computer and telecommunication networks," to be regarded as "a qualitatively new world, a 'frontier'" that has become a place, which demands a new set of metaphors, rules and behaviors (p. 236). Sterling (1992) contributes to this comprehension of cyberspace by discussing the early history of telephone communication as a parallel and precursor for virtual and networked organizations in the early days

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