

# Toward the Digital Social Economy: Institutionalizing Collective Action in the Ever-Evolving Web

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## Abstract

A digital social economy is emerging. Collective efforts to collectivize digital content management in a public-benefit-oriented manner increasingly undertake official organizational form. This institutionalization of networking in the cyberspace opens up novel potentials for knowledge dissemination, service provision and democratic governance. Institutional regulations, social practices, economic interests and technological advances co-evolve toward the innovative web 3.0 where computer applications become increasingly capable of correlating data to meaningful knowledge. The aim of this article is to highlight the dynamics toward a digital social economy enhanced by technological innovations in the cyberspace.

## Keywords

Social, economy, participative web, digital content management

The social economy is a continuously adapting field between the public and the private sector. It comprises of officially recognized, private, independent from the state, not-for-profit and democratically governed organizations established under the primary goal of serving their members and society. In essence it pertains not only traditional non-profits but also innovative market-oriented collective institutions with a statutory commitment to public or community benefit. Representing a third system, social economy lies between public-benefit and private-profit for economy. Common institutional forms pertaining to social economy are unions, mutual funds, cooperatives and foundations (Defourny and Develtere 1999; CIRIEC 2007; Nasioulas 2011).

Internationally the social economy paradigm is dominant in continental Europe and Canada. In the English-speaking world the context of non-profit or community sector is mainly used. The core essence of

this third sector lies in the “non-profit constraint” according to which the institutions’ operations should not become a source of income, profit, or other financial gains for those that establish, control or finance them (James 1989; Anheier and Seibel 1990; Weisbrod 1991; Anheier and Kendall 2001; OECD 2003; Evers and La Ville 2004; Powel and Steinberg 2006).

Major institutional actors in social economy are social enterprises. Usually involving a cooperative structure, social enterprises combine the market effectiveness of conventional enterprises and the

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social versatility of traditional non-profits. The concept of social enterprise emerges through the realization of collective entrepreneurial schemes bearing a solid statutory commitment toward the needs of social groups such as the unemployed and especially those facing intense social discrimination (immigrants, single parents, disabled, poor, ethnic minorities, drug addicts, etc.). Thus social enterprises primarily emerge as a viable response to social issues aiming at enhancing social cohesion (Borzaga and Santuari 2001; EMES 2006; OECD 2009a).

Major European-level initiatives to identify social economy (CIRIEC 2006) are now supplemented by national case studies (Nasioulas 2010). As the social economy field is gradually recognized, focus is now concentrating on evaluation methods (CIRIEC 2010). Social economy enhances the promotions of social cohesion, innovative entrepreneurship and employment thus sustaining inclusive economies. Social economy institutions possess the capacity of responding to emerge needs and identify social demands. They are also highly valued in democratizing participation in the productive process (OECD 2007b, 2009a; CIRIEC 2010).

## **SOCIAL DYNAMICS OF WEB 2.0**

There exists a rising social need and demand for uninhibited access to digital content throughout the cyberspace. Innovative modalities among content, user and transit such as peer-to-peer networks have substantially enhanced digital content delivery. The rise of a participative web is paired by technologies of user-created content, social networking and piracy of digital content. Especially challenging is the distribution of creations of the intellect in digital form (OECD 2007a, 2007b, 2009b; JRC/IPTS 2008a, 2008b, 2009).

Peer-to-peer networking has been a major technological advance providing for unrestricted content sharing and thus challenging intellectual rights

protection.

Peer-to-peer systems are distributed systems consisting of interconnected nodes able to self-organize into network topologies with the purpose of sharing resources such as content, CPU cycles, storage and bandwidth, capable of adapting to failures and accommodating transient populations of nodes while maintaining acceptable connectivity and performance without requiring the intermediation or support of a global centralized server or authority. (Androutsellis and Spinellis 2004)

Peers are both suppliers and consumers of resources, in contrast to the traditional client-server model where only servers supply and clients consume. Bauwens discusses peer-to-peer practices not only as a technological advance but also as a general shift toward collectivity deeply transforming the fundamentals of social life (Bauwens 2005, 2010). Metaphoric frames such as warfare, theft, piracy, sharing, and hacking, that dominate the peer-to-peer debate and demonstrably shape public policy on the use and exchange of digital media are discussed in recent works (Logie 2006).

In search of the driving forces behind unrestricted access to the cyberspace, most prominent values are inherent in the rise of the web: openness and neutrality (Berners-Lee 2001). The visions of free-sharing, open-source and free software, open-access and creative commons oppose strict methods of internet protocol (IP) address protection for market benefit.

Amongst many prominent scholars, Lessig (2006) highlighted the interconnection of corporate interests, technology and legislation: code was law. He discussed the tension between piracy and property as a contradiction between freedom and feudalism in the information society. His main proposals were for a broad deregulation of copyright laws pertaining shorter renewable periods of copyright, limitations in derivative rights, compulsory licensing and taxation schemes. The tension between remix technologies and copyright law is discussed as eroding the future generation's respect toward legality. Amateur use and

appropriation of digital technology are under unprecedented control that previously extended only to professional use: knowledge and manipulation of multi-media technologies are the current generation's form of "literacy" and amateur appropriation in the digital age cannot be stopped but only "criminalized". Read-only culture opposes read/write culture and commercial economy opposes sharing economy. Presenting major hybrid-economy examples, Lessig proposed the following regulative measures: loosening of control in favor of amateur activity, more transparent registration of copyrights, simplification, and decriminalization of copying and file-sharing (Lessig 2008).

In *Rethinking Copyright*, copyright law is discussed in its semantic transformations. Copyright was originally recognized as a state granted privilege. Publication constituted a surrendering of any natural intellectual property right: copyright has never been a natural right to be protected by common law. So copyright has since been a privilege rethought as a right. Hence the process of *Rethinking Copyright* brought us into the current dominant context. Discussing the concept of a "public domain" now incorporating a vastness of copyrighted works, Deazley (2006) proposed the new term "intellectual commons". Published works now fall into overlapping public domain and copyright protected areas: that what is reserved for the author's benefit necessarily removes equivalent liberty from the public and consequently intellectual property from the public domain, and the public's benefit. We are in need of a more clear-cut articulation of such overlapping rights (Deazley 2006).

Open source practices are regarded as a new potential toward business innovation (Mason 2009). Open source along with free-sharing describe practices in production and development that promote access to the end product's source materials bearing significant potentials especially for digital content management. Open source pertains market-oriented

aims in contrast to free software which is a term focusing on enhancing freedom in a non-profit context. Harold (2007) provided a general examination of the open source movements that have arisen throughout cyberspace to protest the encroachment of corporate interests onto "authentic" public spaces, resisting the corporate domination of political and cultural space.

### THE PERSPECTIVE OF WEB 3.0

Semantic web or web 3.0 is an evolution of the web as we know it providing for association of meaning to data: "Today's Web is quite effective at helping people publish and discover documents, but our computer programs cannot read or manipulate the actual data within those documents" (Berners-Lee 2010). While hyperlinks on the web connected human-readable documents, Resource Description Framework (RDF) links on the Semantic Web connect machine-interpretable data located at different sites (Berners-Lee et al. 2001). Additionally, this shouldn't be viewed as a technicality or as a second way for users' participation. Big companies (and consequently the public) benefit not only from participating to software production (Iansiti and Richards 2006) but also from sharing their interpretation of data (Robinson and Bauer 2011). For example, life scientists now have solved the problem of rapid generation data and focus on making sense of this data by sharing and combining their definitions of concepts. Additionally, domains like educational resources and public data (like statistics and laws) have started combining data based on commonly agreed concept definitions. The importance of saving the data in RDF format is that each organization can open its data without the need for a centralized authority and will integrate all data. In other words, the potential of the Semantic Web is to support the process of reshaping the internet from a set of private enterprises' databases toward several degrees of participatory democracies around publicly accessible data (Hendler and

Berners-Lee 2009).

Technological advances due to the Semantic Web, corporate applications and consumers uses are continuously emerging (Shadbald et al. 2006; Feigenbaum et al. 2007). Technologies like Semantically Interlinked Online Communities (SIOC) provide methods of interconnecting discussion methods such as blogs, forums and mailing lists; along with many other innovations it is now possible for social sciences to retrieve rich data compilations of great value to research.

Nevertheless, “while basic semantic web technologies have been defined and are being deployed more widely, little work has sought to explain the effect of these new capabilities on the connections within the Web of people who use them” (Hendler et al. 2008). Social research is sure to face unprecedented challenges due to the participatory nature of data feedback in Semantic Web projects along with the inherent vastness, vagueness, uncertainty and inconsistency of the social, cognitive and technological environment of the cyberspace (Doctorow 2001; Hendler et al. 2008).

## **THE RISE OF A DIGITAL SOCIAL ECONOMY**

Available research indicates that technological advances provide a chance for collective digital content management emerging as an already dynamic trend. For example, communities are formed under the primary aim to create and disseminate software or scientific knowledge liberally licensed to grant the right of users to use, study, change, and improve it through the availability of the needed data. Such networking efforts when undertaking an officially recognized organizational identity may constitute digital social economy actors.

The term “digital social economy” as introduced herein describes a rising sector inside conventional social economy. This part is constituted by such organizations involved in digital content management

and related service provision for public or collective benefit: unions, foundations, social enterprises and cooperatives.

Though essentially collective, and even though it might share most of its fundamental aspirations, digital social economy is not identical to participative web. “The concept of the ‘participative web’ is based on an Internet increasingly influenced by intelligent web services that empower users to contribute to developing, rating, collaborating and distributing Internet content and customizing Internet applications” (OECD 2007: 9). For digital social economy internet may be a decisive means but its activities are not only internet-embedded but also involves local networks along with other non-networked activities, conventional, social and productive ones. Furthermore participative web may involve groups or communities of individuals. Digital social economy consists only of officially recognized organizations bearing all key-features discussed in the first chapter of this article. Internet activity may not be geographically embedded or bound; on the other hand, every digital social economy organization is at least bound to country-specific applicable laws according to its place of establishment.

The point of discussing the rise of a digital social economy lies in the dramatic economic value and social potentials of the cyberspace and activities related to digital content creation and dissemination; Social economy potentials and current contributions—autonomy, participation, diversity—are now parametrically enhanced by computer technology and networking.

Moreover the inherent openness of the internet and the collectivization of digital technology through user-created content emerge as key comparative advantages of this field. User-created content could be identified as: “(1) content made publicly available over the Internet; (2) which reflects a certain amount of creative effort; and (3) which is created outside of professional routines and practices” (OECD 2007: 9).

Digital social economy involves collective digital content management in all its forms and only a part of it is user-created. Nevertheless its overall economic impact and the importance of differentiating value-chains through user-created content are highlighted. Such content is autonomously and directly created and distributed. Many start-ups and non-commercial sites are involved in its dissemination. Nevertheless an increasing interest is now being expressed by commercial firms to participate. A new constantly innovative, decentralized market environment is emerging. New added-value models compete with traditional ones challenging conventional scale advantages through individual or collective initiatives. What is intriguing is that user-created content often emerges as competing to products and services supplied by digital social economy organizations such as professionals' cooperative schemes (OECD 2007: 10-11).

The emergence of this digital social economy is inevitably bound to the same or even more complex challenges faced by activities in the cyberspace: exclusion, cultural fragmentation, accuracy and content quality, privacy, impacts of intense internet use along with regulation, taxation and competition issues, including authorization and digital rights management (OECD 2007: 12-13, 2009; JRC/IPTS 2008a, 2008b, 2009).

## CONCLUSIONS

The emerging digital social economy forms a part of conventional social economy. It shares its institutional structure, ethical values and explicit statutory commitment toward public or collective benefit. Nevertheless it is mainly oriented toward and active through the use of computer technologies for the creation and dissemination of digital content, also involving related service provision. All over the world unions, foundations, cooperatives and social enterprises contribute toward the autonomy,

participation and diversity of the cyberspace. The economic and social value of digital content management is vividly reflected in such not-for-profit, collective and institutionally recognized organizations.

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