

Preface

The 1st International IFIP Working Conference on Value-Driven Social Semantics & Collective Intelligence (IFIP VaSCo 2013)

What happens if you push the play button on Spotify? It triggers software services that stream your preferred song, but more interestingly: you set a value network into motion that rewards the musicians, producers, and composers of that song. This value information however remains tacit, if it ever was constructed. In many cases there is no fair rights clearing and the royalties go to one party. Can we capture how these value network relationships relate to social relationships that bear sentiment about the drummer or singer of this song; or semantic relationships that link the song value networks to networks for other songs?

The IFIP Working Group 12.7 on Social Semantics and Collective Intelligence introduced this topic of “Value-Driven Social Semantics and Collective Intelligence” to reach out to the broader scientific community. The key goal of this workshop was to establish a multidisciplinary forum that could search for and study the theoretical foundations, new paradigms, methodologies, technologies, and practical applications that will bring us to a more explicit and meaningful understanding of collective intelligence and social (networking) semantics on the largely tacit Value Web.

In other words: how do knowledge- and social-connectivity on the Web contribute to (social/business) value co-creation and the other way around; and how can we use this knowledge to discover new ways of value co-creation? Secondly, an aim of the workshop was to investigate and promote the applications of such systems in science, industry, and society at large, including opportunities for standardization.

This workshop narrows the study of Web Science down by focusing on the role of Web relationships as a catalyst for innovation, i.e., a Value Web. This brings us to the central problem statement of this workshop: How can organizations or people (transform so they can) harness the Web to collectively produce value?

The search for the answer starts from a number of commonly accepted phenomena:

1. It was not through careful top-down planning, but rather through the evolution of a set of elementary Internet technologies designed for decentralized use, that the “Social Semantic” Web emerged with such a dramatic level of complexity and scale, in less than two decades (see Zittrain’s generativity principle).
2. Services are becoming the dominant unit of value-creation strategy, management, and operation:

- From a marketing logic point of view, this brings along a shift from transaction-based to relationship-based customer interaction featuring rich service-in-use sentiment and valuation.
 - From a business innovation and management strategy perspective, enterprises seek a network-centric strategy that focuses on collective innovation of services and platforms.
 - From an IT perspective, service orientation is a promising paradigm to functionally decompose inward-oriented organizational processes into outward-oriented business service components.
3. The evolution of Web Relationships exhibits non-linear patterns as proposed.

An understanding of the collective intelligence and social semantics of the “Value Web” starts from these three premises because they are the product of the Social Semantic Web, Service Science, and Web Science so far.

The workshop consisted of six diverse but interesting talks on papers that studied the goal and premises of the workshop from different perspectives, including computer science, marketing, innovation management and strategy, and social sciences. Nine papers were submitted to the workshop and each was reviewed by three members of the programme committee, from which six of the nine were accepted for presentation.

The first talk by Ruiz de Querol and Kappler argued that ‘good hackers’ - exhibiting significant influence on networked social movements - often align themselves with a capitalist-like ‘winner deserves it all’ ideology of their investors, and that a more desirable combination of social and technical skills are needed in such hackers for social values to grow together with Internet society.

Heravi and McGinnis focussed in the second talk on a framework for Social Semantic Journalism that is being designed to help journalists navigate the overwhelming amount of user-generated content online. This framework should help journalists to detect known and unknown news events, verify information and its sources, identify eyewitnesses, and more thoroughly contextualize an event in their subsequent news coverage.

In the third talk on how to monitor a value activity, de Alencar Silva, Weigand and Allah Buhksh proposed the “Value Activity Monitoring” ontology, designed and validated from a design science perspective and evaluated in the real-world business case of customs control. This work is part of a larger future effort towards creating a value-monitoring constellation that can be used for organizational reconfiguration.

The fourth paper talk by Debruyne looked at the relationship between the DOGMA framework for collaborative ontology engineering and Guarino's terminology and ideas in his seminal book “Formal Ontology and Information Systems”. A benefit of this work was the

enhancement of the ontology engineering process in DOGMA with additional notes and documentation, as well as clarifying some of the notions presented by Guarino.

Cardoso et al.'s paper on the particularly challenging task of building, analyzing, and reasoning about global service networks was covered in the fifth talk. The authors proposed the use of service network analysis to study and optimize the provisioning of complex services modeled as Open Semantic Service Networks (OSSN), computer-understandable digital structures which represent connected and dependent services.

Finally, Vasquez and Demey's paper was covered in the sixth talk, which looked at the use of artifacts called "Blackboards for Decision Tables" to support the collaborative and incremental evolution of a network of semantic decision tables. These tables are used to assist with ambiguity and conceptual reasoning difficulties that can arise in large collaborative environments, thereby improving a stakeholder's capability to make decisions at a local and at a community level.

The workshop's invited keynote talk was given by Prof. Dr. Wolfgang Nejdl, Full Professor of Computer Science at the University of Hannover, and Leader of the L3S Research Center and of Knowledge Based Systems at the University of Hannover's Distributed Systems Institute. Prof. Nejdl's very interesting talk tackled three main areas - Web Science, Web Analytics and Web Archives - with the common focus of "humans in the loop".

Firstly, he spoke about Web Science topics, and looked at how human goals, thinking and actions influence and shape the Web. Humans introduce diversity into the Web, and work together creating amazing amounts of information, annotations and data sets. On the second topic of Web Analytics, these different aspects of diversity create problems for our algorithms but also opportunities for coping with them, and he illustrated this with two examples for the task of entity resolution and deduplication. Finally, he discussed current and future work related to Web Archives where search and analysis are different from their counterparts on the Web, and again involving humans is a crucial ingredient in coming up with good solutions.

The organizers would like to thank all of our contributors and stakeholders: our six paper presenters and their co-authors, our invited keynote speaker Prof. Nejdl, our programme committee and additional reviewers, the International Federation for Information Processing (IFIP) and all members of WG 12.7, and our host conference ACM Web Science. Thanks also to EasyChair and CEUR-WS.org for their valuable tools and platforms.

We look forward to meeting you at future events related to this topic.

Pieter, John, Harith, Ricard and Karolin.

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