Managing Risks and Opportunities in Online Business Communities: The ROBUST Project

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1 The ROBUST Project

Online communities have become an integral part of every day life. Highly popular communities like Facebook, Twitter, YouTube and Wikipedia are used world wide by millions of users. But also smaller and less famous communities addressing particular geographic regions, specific user groups or niche interests thrive on the Web. In all of these communities, users exchange information, interact with each other, collaborate and cultivate their social network.

Online communities in a business context have very similar aims. Employees, customers and business partners can discuss, network with other users, and curate business relevant information. The information and knowledge provided in online business communities as well as the social interaction represent a valuable asset to the companies with which they are associated. This value is also reflected by the efforts and resources invested to establish such business communities. Software licenses, wages of administrative personnel, the work time of the employees contributing actively to the community and hardware resources cause non-recurring as well as running costs. Accordingly, such a valuable asset needs to be taken care of and managed appropriately. If users in a business community do not find the information they are looking for, if users become inactive and leave the community or if conflicts and inappropriate language lead to an unproductive use of the system, the value of the online business community decreases. The community becomes "unhealthy" and does not function as intended. In the worst case the community "dies", i. e. no productive use can be observed any longer. This calls for the role of a community manager to oversee and care for the business community in order to protect and develop its value. The job of the community manager cannot be done manually, but requires support in the form of a framework for automatic community monitoring and risk management.

From 2010 to 2013, the ROBUST project[1] has successfully developed such a framework. The project provided methods and approaches for monitoring online communities, to model the semantics of entities involved in the community, to define and track risks and opportunities, and to provide a tool box of risk treatment plans. ROBUST was embedded in three real world use cases, addressing different types and needs of online

[1] http://robust-project.eu/

business communities: (a) an internal collaboration platform for employees, (b) a setting where a company interacts with customers and business partners to provide support for their products and (c) a public domain setting of the general public discussing about companies on the social web.

2 Contribution to the Session

While ROBUST has officially ended in November 2013, the project can still make a valuable contribution to the EU project networking session. This contribution is twofold: ROBUST can (1) share knowledge about methods and solutions relevant to many topics addressed in the context of ESWC and current EU projects and (2) provide a rich collection of open source software including the public prototype version of the community management framework.

The research performed during the project's lifetime has led to more than 100 scientific publications. These publications address many questions relevant to the topics discussed at ESWC. For instance, many publications focus on the Social Semantic Web. The extraction and analysis of semantic relations among community users and social media content was core to many research questions addressed in the project. A second field of interest might be sophisticated approaches for managing and analysing distributed RDF data. In this context, ROBUST developed several techniques for operating on online community data represented in SIOC format. Most of the approaches are generic and can be applied on Linked Data in general. Finally, the project has developed several algorithms and methods for large scale data management and data analysis. These contributions will be of interest for all projects and ESWC attendees working on big data analytics.

Many methods and algorithms presented in these publications have been implemented in the context of the project's community management framework. The major part of the components as well as the community management framework are available on Github[2] under an open source software license. Thus, other projects, researchers and practitioners may benefit from reusing and adapting ROBUST software for their own need.

3 Networking Benefits

ROBUST is obviously in the phase of exploiting the results it has achieved. An important part of the project's exploitation plan is to further disseminate the research results as well as to foster and support the uptake of the open source components. Thus, creating awareness and public perception of the results is a clear aim of the exploitation path the project has chosen.

Other projects participating in the networking event can benefit from getting a quick and comprehensive overview of the achievements of ROBUST. To this end, we will provide a list of the scientific contributions including references to open source components. This list will be organized by topics and distributed during the networking session.

[2] https://github.com/robust-project