

Standardizing the Social Web: The W3C Social Web Activity

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Abstract. The focus of the Social Activity is on making “social” a first-class citizen of the Open Web Platform by enabling standardized protocols, APIs, and an architecture for standardized communication among Social Web applications. These technologies are crucial for both federated social networking and the success of social business between and within the enterprise.

Keywords: decentralization, social web, RDF

1 Introduction

The focus of the W3C Social Activity is on making “social” a first-class citizen of the Open Web Platform by enabling standardized protocols, APIs, and an architecture for standardized communication among Social Web applications. These technologies are crucial for both federated social networking and social business between and within the enterprise and can be built on top of Linked Data. This work will knit together via interoperable standards a number of industry platforms, including IBM Connections, SAP Jam, Jive, SugarCRM, and grassroots efforts such as IndieWeb.¹

The mission of the Social Web Working Group,² part of the Social Activity,³ is to define the technical protocols, Semantic Web vocabularies, and APIs to facilitate access to social functionality as part of the Open Web Platform. These technologies should allow communication between independent systems, federation (also called “decentralization”) being part of the design. The Working Group is chaired by Tantek Celik (Mozilla), Evan Prodromou (E14N), and Arnaud Le Hors (IBM). Also part of the Social Activity is the Social Interest Group⁴ focuses on messaging and co-ordination in the larger space. This work will include a use-case document, including “social business” enterprise use-cases, as well as vocabularies. The Interest Group is chaired by Mark Crawford (SAP). More information is available in the charters of Social Interest Group and Social Web Working Group.

¹ <http://indiewebcamp.com/>

² <http://www.w3.org/Social/WG>

³ <http://www.w3.org/Social/>

⁴ <http://www.w3.org/Social/IG>

2 Context and Vision

The Social Activity has been a goal of many members of W3C for years. The Future of Social Networking Workshop⁵ was held in 2009 and attracted significant mobile and academic interest, and led to the creation of the Social Web Incubator Group⁶ that produced *Towards a Standards-based, Open, and Privacy-Aware Social Web*.⁷ Outcomes of this report included the more open Community Group process, since much social web work was happening outside W3C as the W3C was at the time viewed as too exclusive of grass-roots efforts. This also led to further outreach, with the W3C sponsoring and helping organize the grass-roots Federated Social Web conference in 2011. However, at the time there was still not critical mass of W3C members interested in social.

More and more W3C members are embracing the concept of social standards, thank to the work of the Social Business Community Group, in particular the 2011 Social Business Jam.⁸ The Social Standards: The Future of Business workshop (sponsored by IBM and the Open Mobile Alliance)⁹ developed the standards and ideas for decentralized social networking around industry use-cases. In particular, after the workshop the OpenSocial Foundation joined the W3C, and submitted (with other groups) the OpenSocial Activity Streams and Embedded Experience API as a Member Submission.¹⁰

3 Goals

The Social Web Working Group will create Recommendation Track deliverables that standardize a common JSON syntax (possibly JSON-LD)¹¹ for social data, a client-side API, and a Web protocol for federating social information such as status updates. This should allow Web application developers to embed and facilitate access to social communication on the Web. The client-side API produced by this Working Group should be capable of being deployed in a mobile environment and based on HTML5 and the Open Web Platform.

There are a number of use cases that the work of this Working Group will enable, including but not limited to:

- *User control of personal data*: Some users would like to have autonomous control over their own social data, and share their data selectively across various systems. For an example (based on the IndieWeb initiative), a user could host their own blog and use federated status updates to both push and pull their social information across a number of different social networking sites.

⁵ <http://www.w3.org/2008/09/msnws/>

⁶ <http://www.w3.org/2005/Incubator/socialweb/>

⁷ <http://www.w3.org/2005/Incubator/socialweb/XGR-socialweb-20101206/>

⁸ <http://www.w3.org/2011/socialbusiness-jam/>

⁹ <http://www.w3.org/2013/socialweb/>

¹⁰ <https://www.w3.org/Submission/2014/SUBM-osapi-20140314/>

¹¹ <http://www.w3.org/TR/json-ld/>

- *Cross-Organization Ad-hoc Federation*: If two organizations wish to co-operate jointly on a venture, they currently face the problem of securely interoperating two vastly different systems with different kinds of access control and messaging systems. An interoperable system that is based on the federation of decentralized status updates and private groups can help two organizations communicate in a decentralized manner.
- *Embedded Experiences*: When a user is involved in a social process, often a particular action in a status update may need to cause the triggering of an application. For example, a travel request may need to redirect a user to the company’s travel agent. Rather than re-direct the user to another page using HTTP, this interaction could be securely embedded within page itself.
- *Enterprise Social Business*: In any enterprise, different systems need to communicate with each other about the status of various well-defined business processes without having crucial information lost in e-mail. A system built on the federation of decentralized status updates with semantics can help replace email within an enterprise for crucial business processes.

4 Scope and Deliverables

The Working Group, in conjunction with Social Interest Group, will determine the use cases that derive the requirements for the deliverables. Features that are not implemented due to time constraints can be put in a non-normative “roadmap” document for future work. The scope will include:

- **Social Data Syntax**: A JSON based syntax (possibly JSON-LD) to allow the transfer of social information, such as status updates, across differing social systems. One input to this deliverable is ActivityStreams 2.0.¹²
- **Social API**: A document that defines a specification for a client-side API that lets developers embed and format third party information such as social status updates inside Web applications. One input to this deliverable is the *OpenSocial 2.5.1 Activity Streams and Embedded Experiences APIs Member Submission*, but re-built on top of Linked Data with more secure Javascript sandboxing.
- **Federation Protocol** A Web protocol to allow the federation of activity-based status updates and other data (such as profile information) between heterogeneous Web-based social systems. Federation should include multiple servers sharing updates within a client-server architecture, and allow decentralized social systems to be built. One possible input to this task is WebMention¹³ and another possible input is the Linked Data Platform.¹⁴

Each of these technologies should not be tightly-coupled but can allow general purpose use. Each specification must contain a section detailing any known

¹² <http://tools.ietf.org/html/draft-snell-activitystreams-05>

¹³ <http://indiewebcamp.com/webmention>

¹⁴ <http://www.w3.org/TR/ldp/>

security and privacy implications for implementers, Web authors, and end users. The Social Web WG will actively seek an open security and privacy review for every Recommendation-track deliverable.

5 Conclusion

For the Web to break free of centralized proprietary silos, standards are necessary for a decentralized social web to interoperate. We welcome everyone from enterprise to hackers to join this effort to, as put by Tim Berners-Lee, “re-decentralize” the Web.

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