

What the Web Can't Do

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ABSTRACT

This panel discusses how polling in the HTTPd protocol affects how we are building the next generation of the web and its applications. As other technologies (HTML, Javascript, etc.) move forward, we ask should the web's protocol also evolve or is it sufficient for the web to continue through just GET and POST?

Categories and Subject Descriptors

H.4 [Information Systems Applications]: Miscellaneous

General Terms

Human Factors, Standardization

Keywords

HTTP, WWW, XMPP, REST, Streaming

1. OBJECTIVE

The continuing growth and development of the web brings new interactions with every iteration. Advents in HTML5 and Javascript increase what is possible to render in a browser, adding more than simple page markup, yet by convention, these interactions are ultimately limited to seven verbs described in the now 10 year old RFC 2616 Section 9 specification¹. Video streams, real-time web, chat channels, and rich interactions supported through a variety of protocols need to be proxied through the verbs of GET, POST, and PUT. Is this really enough for the web to continue to grow or do we need grow and introduce newer verbs?

The objective of this panel is to help define what the real-time web might become. Currently, we use a stack of technologies (from server proxies to hidden Flash objects) to facilitate concurrency; but this current stack bottlenecks through the verbs GET and POST in an endless loop of asking "are we there yet? are we there yet?" We aim to present several perspectives of how to maintain these real-time interactions and ask is the web as we know it enough? The panel is composed of protocol level and application level experts and should broadly address anyone working with web technologies.

¹<http://www.w3.org/Protocols/rfc2616/rfc2616-sec9.html>

2. PANELIST BIOGRAPHIES

David A. Shamma, Yahoo! Research: [Moderator] David A. Shamma is a research scientist in the Internet Experiences group at Yahoo! Research. His research interests include digital expression, creativity frameworks, synchronous interaction, and media sharing as well as community centered multimedia (including music, images, videos, artworks, and performances).

Seth Fitzsimmons, Flickr: Seth is a Senior Engineer & Hacker at Flickr and the former lead developer of Fire Eagle (a real time location brokering platform). In his free time, he plays in small plastic boats and hacks on whatever's currently shiniest.

Joe Gregorio, Google: Joe Gregorio works for Google in Developer Relations where he has worked on the Google Data Protocols, Google App Engine, and most recently on Google Wave. He is a member of the AtomPub Workgroup and editor of the Atom Publishing Protocol. He has a deep interest in web technologies, writing "The RESTful Web" column for the online O'Reilly publication XML, writing the first desktop aggregator written in C#, and publishing various Python modules to help in putting together RESTful web services, such as httplib2.

Adam Hupp, Facebook: Adam Hupp is an engineering lead on the Facebook News Feed team. He is currently focused on site performance and previously worked on the Live Feed and several home page redesigns. Prior to his work at Facebook Adam developed radiology software and studied at the University of Wisconsin-Madison.

Ramesh Jain, UC Irvine: Currently Ramesh Jain is a Donald Bren Professor in Information & Computer Sciences at University of California, Irvine. Ramesh was the founding Editor-in-Chief of IEEE Multimedia magazine and has served and continues to serve on the editorial boards of several journals. He has co-authored more than 350 research papers in well-respected journals and conference proceedings. His current research interests are in searching multimedia data and creating EventWebs for experiential computing.

Kevin Marks, BT: Kevin Marks is author of the weblog Epeus Epigone. He is Vice President of Web Services at BT. He became Principal Engineer for Technorati after working for both Apple and the BBC. At the TechCrunch event Realtime Stream Crunchup he announced that he would be joining BT to work together with JP Rangaswami. He is one of the founders of Microformats.