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## John Tibbetts

John Tibbetts is a Senior Consultant with Cutter Consortium's Enterprise Architecture and Agile Project Management practices. He has spent the last half of his 30-year computing career helping enterprises and their software vendors articulate and implement coherent, principled software architectures. He works with technical architecture teams as they come to strategic decisions and, at the other end of the spectrum, serves as technology coach, mentor, and motivator to in-the-trenches development teams. He is especially good at making complex software issues comprehensible to senior management.

His special passion is the emerging category he defines as "collaborative transactions," an approach that blends multi-role workflow, business rule-processing, access control and secure collaboration into an integrated, single-metaphor development model. To this end, he has developed the new WorkThru framework, a Java-based open-source platform that uses middle-tier objects to hold and manipulate individual pieces of long-running work-in-progress.

His complete bio is at [www.cutter.com/meet-our-experts/tibbettsj.html](http://www.cutter.com/meet-our-experts/tibbettsj.html).



# **Web 2.0's**

## **“Rich Internet Applications”**

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## Rich Internet Applications...

- Increase the “liveness” of a web-based application
- Combine the responsiveness of a desktop GUI with the zero-installation delivery of a Web app
- Offer more than just “glitz” — RIAs are a return to user interface architecture

## UI Evolution

- 1970s – Text-based interfaces (timesharing systems, Unix)
- 1980s – Forms-based interfaces (block-mode terminals)
- 1990s – Graphical user interfaces (Windowing systems, Windows, Apple)
- 1990s – Object-oriented user interfaces (OS/2, Mac)

Then the Web happened.

## What the Web did to UI architecture

- Caused a move back to forms-based interfaces
- Enabled ubiquitous deployment
- Although graphic artists enlisted to dress it up, a real setback in terms of UI capabilities

## The RIA corrective

- Rich Internet Apps restore the live interface
- Allow UI evolution to continue
- RIAs provide:
  - Direct access to any part of the display at any time (“live look”)
  - Event-handling of user gesture as they occur (“live feel”)
  - Real-time and asynchronous communication with the server
    - At any time
    - Not just at page boundary

## Three RIA approaches

- Ajax techniques
- Integrated RIA development environments (Adobe's Flex)
- Single development image for client and server (Google Web Toolkit)

## Ajax techniques

Use browser-based Javascript to program the thin client

- + an approach, not a library
- + effective UIs
- + many supporting libraries/tools/gadgets (100+)
- can take major programming efforts, especially dealing with browser differences
- client-side development radically split from server-side development:  
*split system image*

## Integrated RIA development environments

(Adobe's Flex)

- + best RIA development capabilities available today
- + ActionScript language a successor to Javascript, with major improvements
- + large library of dazzling widgets
- + significant infrastructure for connecting to server-side databases, frameworks, environments
- + web-designer friendly
- still split system image

## Single development image for client & server

(Google Web Toolkit)

- + both client and server written in Java (or a Java-based GUI builder)
- + client code is cross-compiled into Javascript at deployment time, with browser-dependent functionality abstracted
- + Java objects can be used to transfer data between client and server
- + single debugging image, stepping through from client to server to client
- + holistic conceptual model for developer: *single system image*
- widgets still pretty elementary (compared to Flex)

## Upcoming Webinars

### ■ Risk Management for ERP

23 August, 11:30 am - 12:30 pm EST, featuring Jerry Peterson

[www.cutter.com/events/multimedia.html](http://www.cutter.com/events/multimedia.html)

## Additional Questions?

- Send questions to John Tibbetts by e-mail:  
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- Would you like to:
  - Schedule a time to speak with John?
  - Find out how you can bring John into your organization to present a customized version of this presentation?
  - Get John's assistance on your RIA

Contact your Cutter Consortium Account Executive by phone or e-mail.

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