Mash-ups Considered Harmful!
Composition and Choreography of Web Components

Some current Web Compositional Models

<table>
<thead>
<tr>
<th>Multimodal</th>
<th>Declarative widget to widget wiring: O(n²) Tight coupling of data</th>
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<tbody>
<tr>
<td>AJAX</td>
<td>Procedural widget to widget wiring: O(n²) Tight coupling of components</td>
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What is missing from the above models?
- Extensibility
- Scalability
- Ease of development

XAC’s: XML Application Components

1. Application controller could be generated from state chart diagram. No Jscript experience needed.

2. SCXML Controller replaces Jscript to control the execution of an application by listening to events and data model changes. Loose coupling of control.

3. XForms Data Model is bound to views. Loose coupling between data and widgets.

4. Yahoo Map view is wrapped by XBL and presented as a YMap XML namespace. The YMap View interacts with other components by firing the same events and data changes as built-in components.

5. Both control and data in this application are loosely coupled. So, additional views can easily be added to the application. (Example: A Speech view is added)

6. Developers can package their mash-ups as Web Components. Each component is composed as described here, and the XAC component interacts with its container in the same manner as an atomic component:
   - Publishing a data model
   - Firing XML events to the DOM tree

Summary
XAC’s empower Web application developers to easily and rapidly create rich end-user interaction.

XAC’s leverage existing Web technologies, namely XHTML, SCXML, and XForms extending them to support component creation, composition, and late binding.