

Flipchart transcripts: ISWC UI Workshop Discussions

Questions/comments handed in after morning sessions

Interaction questions:

- What is the shared map of all SW interface paradigms? How can they be mixed? Merged? Overlapped?
- Web “norms” – live with them, or overcome them?
- How many user participants are enough? Particularly as high-context increases?
- *Heuristics* for the SW?
- Interaction representations and metaphors?
 - Clickable
 - List/hierarchy
 - Tab, folder, set
 - Zoom, switch
 - Button, link, etc.

Creating ontology:

- Markup challenge – for an individual, for groups
- RDF structure vs. user’s model (*mental model?*)
- *Tasks* that help edit and or use an ontology
- How to create lighter weight ontologies that are easy for average users to create but still formally backed?
- Folksonomy? Have/create categories without having an ontology?
- Contributing to a shared ontology – how?
- Can users cope with the complexity of the SW?
- Can users understand the information structures necessary to build applications “Haystack-style”?
- Is detailed knowledge of the data model a prerequisite? Does this limit “discovery”?

Personalization of data and UI:

- What is a personalized view? Views on (*heterogeneous?*), distributed, dynamic sources
- Is a personalized ontology a contradiction in itself?
- Service Oriented Architecture (SOA) for personalization?
- Short-term or temporary change vs. persistent choice/preference
- Ghost data – how to exclude or reject? (“ghost data” might be data that is in the data set but not useful to the context, such as words mentioned in a document that make it retrieved during a search for those words, but they are not what the document is actually about)
- How would someone create a personalized ontology?
- Importance to work tasks *motivates* people to build/configure views

Understanding a data model:

- What is a default interface to an unknown knowledge base?
- How do you start exploring in a friendly way?
- Custom widgets for the SW?
 - For mining data
 - For creating data
- Authoring instances (*may not have read this correctly*)
- Learning a visualized “language” (metaphors, representations and controls)
- Visualization patterns – familiar to users? Impact of non-hierarchical representations?
- Way-finding within visualizations:
 - Entry points
 - Actions
 - Paths visited

Learning:

- How much learning required?
- How do we support users that use dynamic application libraries like Haystack?
- Are SW apps mostly useful to highly skilled “knowledge workers”?

Query construction:

- Graphical querying?
- How much information is needed to bootstrap the system?
- User ability to understand and use “known” types/predicates (i.e. could you put them in a drop-down?)

Integration at the UI level:

- Can Fresnel give us the “X-Forms” for the SW?
- How could review/refinement of entity extraction be done?
- What is the balance of technology/query performance vs. user expectations?
- What about tagging links/???? rather than URIs?
- Should the web (AJAX) be used as a platform for SW applications?

Breakout: Goals, Enablers, Challenges

Integration breakout 1

<p>Are we providing a different user experience in semantic applications? What level of detail – semantically speaking – should we show?</p> <ul style="list-style-type: none"> • See the detail of recommendations • Bad recommendations – how did this happen? <i>(note: “recommendations” could refer either to earlier demo of FilmTrust or m-space mobile recommendations)</i>
<p>Challenges/barriers:</p> <p>Transparency of behavior</p> <ul style="list-style-type: none"> • Can users understand what is happening? <p>Existing applications “lock data in” Privacy – what is public? What is private? Complexity of UI vs. usability</p>
<p>Goals:</p> <ul style="list-style-type: none"> • Syndicated and personalized views and/or integrated views • Exposing relationships <ul style="list-style-type: none"> • Using the relationships rather than just seeing them • Understanding the relationships • Unlocking data in applications <p>Enablers:</p> <ul style="list-style-type: none"> • Shared vocabularies • Translation between vocabularies (relationships)

Integration breakout 2

<p>Challenges</p> <ul style="list-style-type: none"> • Do I get “credit” for sending out the little information fragment? • Must be able to expose provenance of information fragments • TRUST – <i>is this associated with the idea of getting credit and exposing provenance?</i> • Sneak the SW into the tools people are already using • How do you get people to use it? (<i>what is “it”?</i>) • How many people customize <i>anything</i> on their desktops? • Perceived cost/effort is higher than perceived benefit to user • Older apps will be harder to integrate into
<p>Goal</p> <ul style="list-style-type: none"> • Let users produce more information to share (not just consuming info) • Enterprise adoption

Enablers

- Make it easy to add information
- “What’s in it for me?”
 - Innovation
 - Give extra functionality and value
 - Immediate benefit, e.g. takes care of something you hate doing
- Automatically extracting data
- Annotation tools
- Integrate into newer applications, e.g. blogs
- Work with existing data that can be reused (in the enterprise)

Query breakout

“Spoiled by Google”

Keep with what is familiar to user:

- “train” users to use more formal language?
- Mapping:
 - Translate input for RDF system
 - (magic?)
 - Translate back to end user

User becomes “developer”?

- Limitations of classical HTML, links, etc.
- Error detection, ensuring “correctness” (eclipse?)

“Hiding” semantics under existing simple interfaces

- Showing them in a simple way that user understands

Give data meaning

Hide mechanisms

Natural language rather than “formal” representation/model

- The way we speak is not the way the computer “thinks”
- Map language back to the user once the machine has processed it

Ontology Visualization breakout

What tasks/activities are visualization good for?

1. Creation
2. Using – e.g. query broadening
3. ??? – e.g. domain specific or domain oriented viz
4. Debugging an ontology
5. Extending

Learning-driven approaches

Suggestion on *how to model*

Group Discussions

Early afternoon (before breakout) – applications, what’s different from now

<p>Need to generate metadata</p> <ul style="list-style-type: none"> • How to make this easy? <p>Capture data for <i>machine</i> use</p> <p>Generalized descriptions of how data is presented and manipulated</p> <ul style="list-style-type: none"> • Reducing “purpose-built” applications • More <i>types</i> of data appear <p>Information classified and presented in domains</p> <ul style="list-style-type: none"> • Does the user need to understand the domains? • Learning is required • Users can contribute to categorizing
<p>Competition between “designed” interfaces and “automatic”/generated interfaces?</p> <p>How to choose and personalize interactions and views?</p> <p>Precise/logic – in competition with the way users think and work</p> <p>Dynamic and/or ad hoc data sets</p> <ul style="list-style-type: none"> • How to make sense of it? • How to see the relationships? • How to navigate and do stuff with the data? <p>Metaphor-breaking – an integrated environment rather than “types” and their tools</p>
<p>Ability to assemble “chunks” into your own view or collection</p> <p>Filtering – applying context</p> <ul style="list-style-type: none"> • How to capture the context and thoughts? <p>Potential need to structure chunks into views</p> <p>Does disconnecting snippets/chunks of information lose the essence or context of its origin?</p> <p>Knowledge of the <i>source</i> required to be able to return to the context/provenance</p> <p>As documents become “active” the doc/application separation blurs</p>
<p>How can users benefit without getting stuck in technical issues?</p> <ul style="list-style-type: none"> • Reuse, control, manipulate data at the individual user level <p>What will happen if we can do compound queries and use multiple data sets?</p> <p>What is the experience of jumping through rich, associated data?</p> <p>How to return to “deep” information and chunks of useful data?</p> <p>Will smaller, interlined chunks of data change what is <i>produced</i>?</p> <p>What is the effect of navigating in order to get to small chunks? (contextualizing)</p>
<p>Learning from what hasn’t worked before... and what has worked</p> <ul style="list-style-type: none"> • OLE, OpenDoc, etc. • Dynamic, data-driven web (e.g. Amazon) <ul style="list-style-type: none"> • Capturing structured data easily • Navigating between facets <p>Folksonomy – evolution of language and capturing it... surfacing “common” or useful language</p>

Late afternoon – process, research opportunities, questions to explore

Metadata

(connect with “how to make this easy?” question above)

- Identify user “context”
- User’s recognition and *valuing* of existing metadata
- Automated extraction with end users “fixing” the data
 - Inline corrections
 - Interaction design of new controls
- Observing users navigating and using data
 - What is missing
 - What is overlooked
- Accessing “cues” that you can hook metadata onto

Assembling “chunks” into documents

“Genre” research – identifying common genre cues

Top down or bottom up?

- Top down: Goal-driven? High quality? Less freedom?
- Bottom-up: Free exploration? Serendipity?

If a chunk is not a URI but is known to the user, can you facilitate metadata creation?

What matters to users now?

- Explore bookmark behavior to identify what users focus on

Observation – are they doing these things now, either formally or just mentally?

Assembly or synthesis?

Lessons from e-Learning (SCORM, etc.) – does this provide evidence?

Personalizing

Investigate types of tasks that users want to perform with ontologies?

What computer/interaction parameters get changed? What motivates a user to check them?

For the computer to derive context:

- Environment sensors
- Observe experiences with the web and SW
- Observe interactions with large data sets – what are the options that get selected/entered?

Design “subtle” shifts and prompts – what can we learn from adaptive interface research?

Source & Provenance

User profiling and personas

- Sensitivity to overload?
- Ability and desire to investigate and/or trust what they see?

Do people really trust everything they see? Everything they are recommended?

- What is a user's current trust of a particular site? How does that change as a site broadens?
- What other research is out there on trust?

User contributing "my interpretation" of what/who I trust

- When and how often do I need to reinterpret?
- What's in it for me?
- How much use of information is needed to be able to make a decision? (*my use, also a recommender's use of info*).
- Mining data on the use of information

Clarifying when users are more or less sensitive, and why. (*future research*)

Are users becoming comfortable with newer, in-page, dynamic interactions?

Way forward

How do we involve *ourselves*?

- Share tools
- Share data (a "semantic bank"?)
- Share lessons and experiences of actual use
- Share works in progress

"Don't know what we're doing until we do it"

- Active collaboration?

Space to talk about interface-related issues and experiences? (*discussion of listserv here*)

How do we involve the HCI community? What do we want?

How to get it raised as a "core issue"?

Listen when we pose interesting problems

- How is "what we want" different than problems that are already solved?
- What to do about data that has *no schema*?