



# Semantically-Driven User Experiences

## MobEA III Workshop

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## What do we talk about when we talk about the Semantic Web?

- Is the Semantic Web activity a single integrated “system” or is it a set of technologies and practices?
- Semantic Web vision is still unclear to many
- Eyes go all glassy
- Specific semantic web technologies are easier to get a handle on
  - RDF, Ontologies

# What has this got to do with Mobile User Experiences?

- There are a multiplicity of ways to interact with a user through a mobile terminal
  - Voice, SMS, MMS (SMIL), “browsing,” multimodal interactions, XML compound document formats (XHTML+SVG), embedded applications, or a combination of these
  - Semantics can help decide which modality to use according to context
  - Semantics can help adapt modality-neutral experiences
- A key challenge of the “information society” is being able to sift through increasingly daunting amounts of information to find what you want or what’s relevant
  - These challenges are nowhere more apparent than on the mobile device: small screen, lower attention threshold, fiddly user interface, network latency, etc...
  - Semantics can help

# Vodafone Live!

- Vodafone's mobile portal
- Uses Web-Services model to communicate to content providers on back end
- Provides content rendering (adaptation), payment, user profile, search, etc...
- GSMA Award Winning
- Arguably a "great step forward" in mobile data services integrated user experience
- But:
  - A "closed world" (not sustainable)
  - Still lots of clicking and waiting
- Challenge: extend the Vodafone Live! integrated experience model to the rest of the Wild Woolly Web



# Semantic Web Technologies in Action: Search

- Rolling out search based on RDF increases revenue by 20% over a 2 month period
  - Why?
- 
- Users largely abandoned browsing in favor of the search application
  - Shorter “click distance” means less “drop off” – people don’t *like* browsing from page to page looking for something
  - RDF allows normalization between content providers: better results
  - Content partners, initially sceptical, are now clamouring to get on the RDF bandwagon

# Lessons and Questions

- What lessons can be drawn from the Search Example?
  - Semantics can help to drive better user experiences on existing devices
  - RDF=\$\$\$: Use of semantics is a money maker
- Questions
  - Can this success be extended into more “content discovery” scenarios?

# Semantics Driving “Device Independence”

- VCML: Vodafone’s Internal Content Mark-Up
  - Using metadata annotation on top of content allows more sophisticated user experiences
  - Premium Content (Vodafone-specific vocabulary)
  - Adult Content (ICRA labels)
  - PRISM metadata
- When is a list not a list?
- Charging content with Semantics allows Vodafone to tailor user experience to user preferences and context
  - Preferred links appear higher in navigation hierarchy (e.g. favorite team)
  - Most relevant options given first (e.g. based on your location or other context info)
  - Phone proactively shows relevant information (e.g. you’re in the airport and your flight has just been cancelled, would you like to rebook?)

## Other Anecdotal Evidence

- Users are getting more savvy about metadata
- The blogging world: RSS
- Flickr (Photo annotation)



# There is an Opportunity

- Mobile user experiences, unlike the “fixed Web,” have not fallen into a rut
- But what is needed?
  - Device Independence Language Profile – DI Working Group
  - Standard Vocabularies – Various
  - Tool support
    - Content creation
    - Content handling / filtering/ management / etc...
  - More research on user experiences across different interface modalities



Thank you!

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