

“My Personal Web”: A Seminar on Personalization and Privacy for Web and Converged Services

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The web services paradigm holds the promise of tremendous flexibility in how services are combined to meet the needs of individual end-users. The “convergence” of networks (wireline telephony, wireless, data) further enhances the web services paradigm, by enabling the incorporation of real time contextual information (e.g., presence and location) along with opportunities for web services to impact the physical world more immediately (e.g., a vending machine delivering a soda based on a purchase via a cell phone). But it will not be possible for most end-users to enjoy the rich and intricate possibilities, unless a broad variety of personalization technologies are available and respect the end user’s legitimate need for privacy.

This seminar begins with examples illustrating why personalization will be so important for the emerging web and converged services. The main body of the seminar focuses on 3 inter-related technologies. First is profile data management, the ability for services to share and access end-user profile data (including address, credit card, “simple” preferences, current location, current presence, ...) as appropriate for the services to be provided. Second is preference and policy management, the ability to store and execute on intricate, interrelated preferences that end-users may have (e.g., “during working hours, calls from strangers should be routed to voice-mail”; “I usually work from 9 to 6, but on Thursdays it is from 8 to 4”; ...). And third is personalized and privacy-conscious data sharing of profile data and preferences, the notion that an end-user should have complete control over what profile and preference data is shared with whom and under what circumstances and how it is interpreted. In addition to describing emerging approaches for providing these capabilities, the seminar will describe how to add value to applications by using personalization, from both the end-user and the application provider perspectives.

1. *Motivation*: Examples of Applications; Overview of requirements
2. *Profile Data Management*: Taxonomy (architecture, query flow, etc.); Systems: Passport, Liberty Alliance, DEN, Netscape Roaming Profiles, GUPster; Tradeoffs

3. *Preferences and Policy Management*: Taxonomy; Systems: IETF rules, OPES, ILOG, Houdini; Tradeoffs
4. *Personalized and Privacy-Conscious Data Sharing*: Requirements; Privacy solutions: XACL, XACML, P3P/APPEL; Personalization solutions; Representative systems: Hippocratic DBs, Houdini, IBM Common Rules, GUPster
5. *Bringing it All Together*: An extended example (selective-reach-me); Provisioning of the preferences; Adding value to existing applications
6. *Conclusion and Future Work*

Speakers

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