permaedia
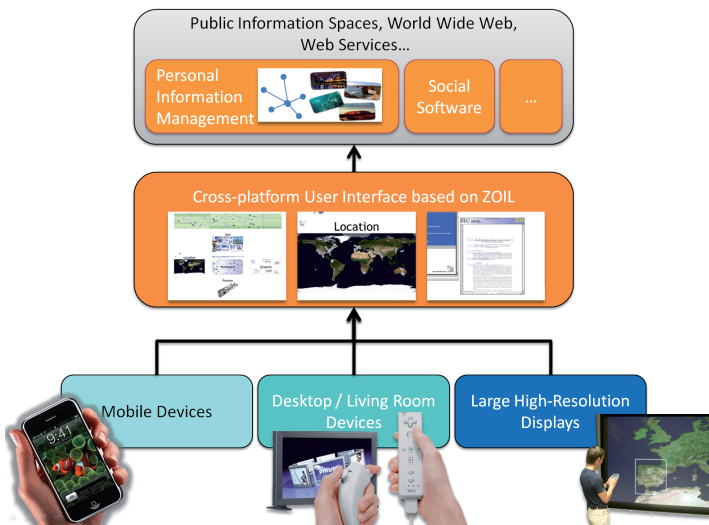## Personal Nomadic Media for the Coming Decade

The permaedia project demonstrates how novel visual user interfaces based on a novel user interface paradigm will shape and enrich our personal digital life in the coming decade of mobility and ubiquity.

The ZOIL (**Z**oomable **O**bject-Oriented **I**nformation **L**andscape) user interface paradigm will combine consistency in interaction and content with intuitive and natural user interfaces that are suitable for a wide range of mobile and stationary devices (e.g. mobile phones, UMPCs, PCs, display walls) and personal media services (e.g. personal information management, unified messaging, social networking, location-based services).

permaedia will explore how the next generation of personal nomadic media can provide users with a seamless integration of services across device boundaries for an urban and mobile context. To create realistic but nonetheless innovative usage scenarios, permaedia will use the Olympic Summer Games 2012 in London as an overarching scenario.

Research Goals

User-centered (Re)design of Existing Personal Media

- focusing on real user needs, usability and user experience
- interaction design for horizontal usability and consistency between different services, platforms and devices
- service-oriented unification instead of application- and device-oriented fragmentation

ZOIL – a Post-WIMP User Interface Paradigm

- zoomable object-oriented user interfaces
- direct manipulation & visual-spatial information management
- visual information seeking & information visualization

The ZOIL User Interface Paradigm

The ZOIL user interface paradigm unifies zoomable user interfaces (ZUIs) with information visualization and direct-manipulation techniques to replace traditional menu-, window and hypertext-driven user interfaces. Unlike the application-oriented desktop metaphor, ZOIL will integrate a wide range of different services and content into a single personal workplace without application boundaries: the "information landscape".
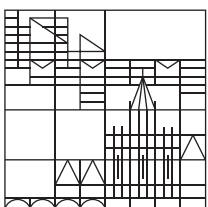

Thereby the information landscape can be understood as a virtual whiteboard of infinite size and resolution which unifies today's fragmented world of personal and mobile computing (Web vs. local applications, mobile vs. WIMP interaction styles, remote vs. local file storage, proprietary file formats vs. open personal information repositories).

By using ZUI concepts for visualization and navigation, a ZOIL-based user interface scales to different display sizes and can be operated with different input devices (e.g. touchscreens for mobile phones or tabletop displays or gesture recognition for display walls). Thereby access to the information landscape is provided by a Rich Internet Application allowing for nomadic and collaborative use of ZOIL on all web-enabled devices and displays.

Novel Nomadic Services and User Interfaces

- nomadic personal information management
- nomadic social software and collaboration
- geo-referential and location based-services
- cross-platform consistency in content and interaction

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