# Ubiquitous Application Design Community Group

http://www.w3.org/community/uad/

MBUI WG F2F
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# W3C Community Groups

- W3C has created Community Groups so that developers, designers, and anyone passionate about the Web has a place to have discussions and publish documents.

- A W3C Community Group is an open forum, without fees, where Web developers and other stakeholders develop specifications, hold discussions, develop test suites, and connect with W3C's international community of Web experts.

http://www.w3.org/community/

# Rationale

- Why is a Community Group valuable for model-based user interface design?
  - To foster an on-going two-way dialogue between developers and researchers
    - *Few developers are aware of model-based UI*
    - *Using real world needs to inspire future research*
    - *Preparing the ground for future standardization*
  - To collect data and use cases that show the value of context aware user interface design
    - *Hard data on the business benefits*
  - To encourage the development of open source tools for context aware user interface design
    - *Encouraging adoption by commercial developers*

# What's the Developer Perspective?

- Few companies have mobile ready websites
  - Websites are created for desktop use
  - Native apps for iPhone and Android if appropriate
    - *But what about Windows 8, Blackberry, Ubuntu Mobile, ...*
  - W3C promoting the Open Web Platform (HTML5)
    - *Reduce time and cost to reach different devices compared to native apps*
- "Responsive Design"
  - Matching image versions to device characteristics
  - Server side adaptation of content and styling based upon headers provided in HTTP requests
  - Client side adaptation
    - *CSS media queries*
    - *IMG srcset attribute*
    - *Web page scripts*
- Role of client-side libraries e.g. JQuery mobile

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# Desktop vs Mobile

# Desktop vs Mobile
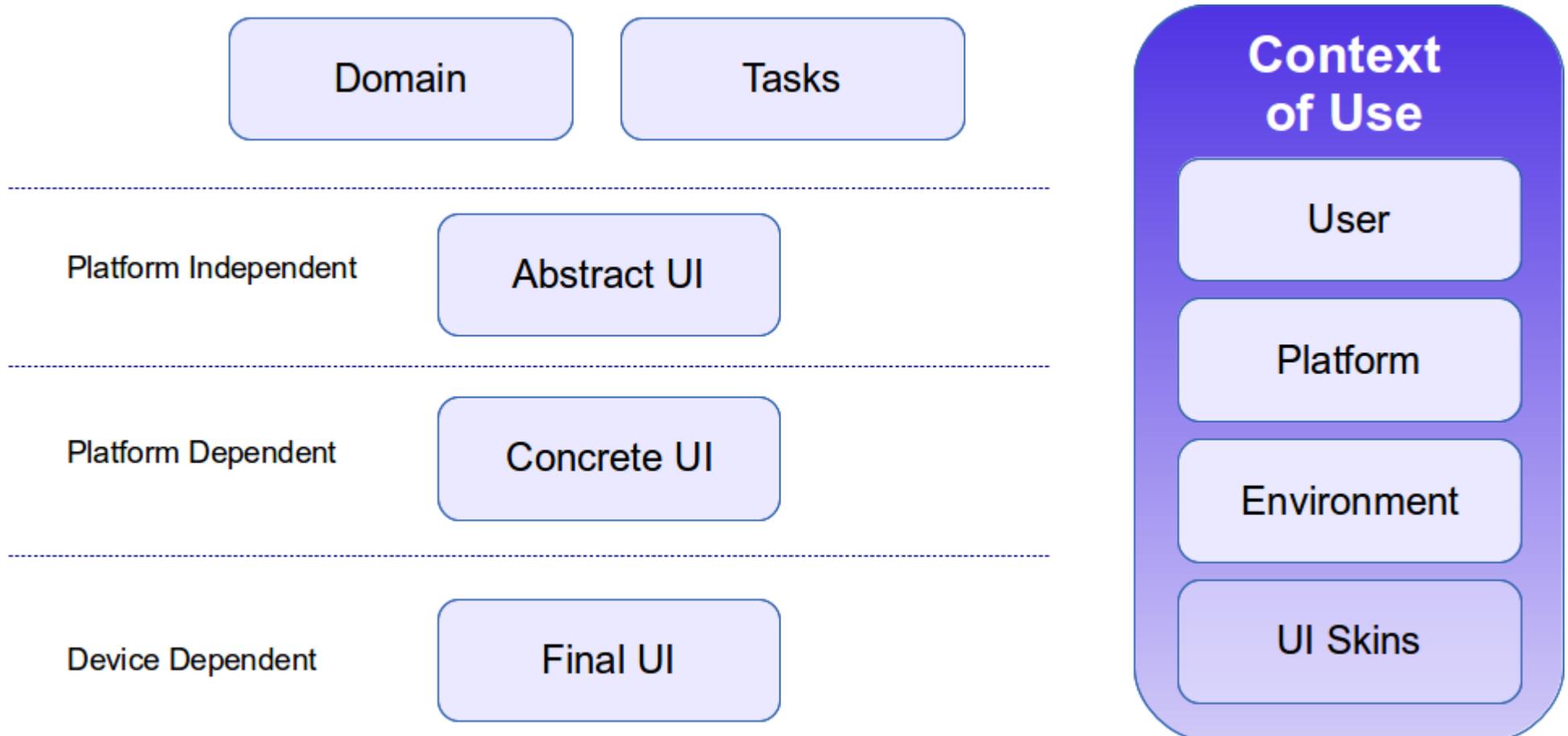
- ● On large desktop display, plenty of room

  – Lush graphics for a richer user experience

  – Opportunities for marketing related services

  – WIMP based interaction

    - *Windows, icons, menus, pointer*

- ● On smart phone, smaller display and mobile context of use

  – Narrower focus on core tasks

  – Touch UI requires proportionately larger controls for finger based gestures

# Design Knowledge

- Richly annotated domain models
  - Based upon business requirements
  - Annotations: validity and relevancy constraints
- Task models as basis for dialogue design
  - At both abstract and concrete levels
  - Annotations, e.g. core/advanced tasks, relationship to the context of use
- Layout expertise
  - For each target platform e.g. mobile, tablet, desktop and smart TV
  - Reliance on sizing info for individual controls
  - Impact of localization for different languages and cultures
  - Custom controls
  - Separation between concrete and final UI
- Context Awareness and adaptation to the context of use
- Low level expertise on target platforms and devices

# Separation of Concerns

| Domain | Tasks |
|--------|-------|

**Platform Independent** — Abstract UI

**Platform Dependent** — Concrete UI

**Device Dependent** — Final UI

**Context of Use**
- User
- Platform
- Environment
- UI Skins

# Where Next?

- Encouraging developers and researchers to join
    - How to attract developers?
    - Need to see and explain things from their perspective
- Seeking volunteers for Chairs
- Do we want to propose specifications for future standardization?
    - Makes it harder for some companies to join due to IPR commitments
        - *Having to justify the cost of getting corporate lawyers to sign off on IPR risks*
    - This would be eased if we were to define a narrower scope
      for specifications as part of an adopted Community Group charter
- Getting on with documenting use cases and business case
- Building enthusiasm for creating an open source tool kit
    - Starting with developer review of existing tools and libraries
- Opportunities for face to face gatherings of developers and researchers?
    - Discussions, tutorials and training ...

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Please join and help to build a strong dialogue between developers and researchers!

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