Low Cost UX Design in New Media Design - learning from a lightweight design domain

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Outline - new media design
- mash-up's ... a highly flexible architecture
- highly usable/excellent user experience
- why is this?
- ideation (concepting) is highly independent from implementation (how-to)
- 'enacting' design is crucial eg. in sketching, role playing, demonstrating, etc.
- focus UX on enacting; also rather cheap

Some relevant developments in new Media Design
- mash-ups, C/S, soa's
- co-creation, co-design
- iterative & incremental design
- design exploration & emergent design
- agile design & rapid prototyping
- enactment: scenario's, (paper) prototyping, demonstrating

A highly flexible architecture: mash-up's

de Haan (2013, 2014) New Media Design is flexible, non-technical & creative assembly of independent elements

Flexibility enables UX & Usability
- **Mash-up's**: a small central core + services as required, each linked in a client-server manner.
- Flexible choice of functionality
- **Front-end** has all the presentation aspects, often as a script, allowing adaptation into maintenance
- Flexible adaptation of presentation
- **true C/S**: implementation may be partial, incomplete, piecemeal. For coding, specifications need not be complete, consistent or correct.
- Flexibility in the design process
Flexibility in New Media Design

- **over structure**: the layers of the application are not interdependent (cf. seeheim, C/S, mashups)
  - the UI is not dependent on the logic or the application
- **over elements**: the services, functions, API’s are independent (cf. principles of OO)
  - add, change, remove functions as required
- **over time**: adaptation to changing requirements, wishes, user groups, contexts of use ...
  - it is common to continue design into ‘maintenance’
- **over specification**: design specifications need not be complete, consistent or accurate

New Media Design is lightweight design

New Media Design: ideation or concept design is separate from implementation. This enables true user-centred design as user virtual machine design or mental model specification.

Pragmatic / lightweight tools for Usability and UX

- design concept, design view
- persona’s (mood boards)
- scenario’s, storyboards
- use cases, activity diagrams, ER diagrams
- interface sketches, wireframes
- (paper) prototypes, demonstrators, actual designs

Ideation and implementation are separate design processes

- ideation / conceptualisation / design design: product is the user’s view of the design
  - designers mental model, user virtual machine
  - the meaning of the design to the user
- implementation / coding / realisation: product is the machine’s code how to do it
  - the workings of the design for the machine
- each delineates the remaining design space but independently with respect to the design goal

In ideation, ‘enacting’ design is crucial

- in sketching, role playing, demonstrating, etc.
- persons, tasks, sketches, scenario’s
- video’s, prototypes, working system as design specification (cf. van der Kooij and Retfalfi or art/non-engineering design)

Example: a diabetes scenario (1)

Ms. Brown is a vital 72 year old, a bit forgetful and well overweight. For three days her blood glucose level has been too high.

- Causes
  - forgotten medication, diet
  - measurement error
  - faulty device
- Remedies
  - call for help (assistant, nurse, ...)
  - measure again
  - increase medication (SuperAssist project @ TUDelft - MMI Group)

Example: a diabetes scenario (2)

Ms. Brown is a vital 72 year old. Two years ago she was diagnosed with diabetes and a diet and medication were prescribed. For 3 days, Ms. Brown’s blood glucose level has been higher than normal and today it is rather high.

A little alarmed, Ms. Brown presses the help-button on the diabetes assistant and a friendly voice assures her that there is nothing to worry about.

The assistant suggests her to redo the measurement using the little finger of her other hand. Ms. Brown now learns that her blood glucose level is only slightly higher than normal and her assistant asks her to take her pills, including an extra TZD “the blue one” just to be safe.
Conclusion: keep design within the human sphere, well away from how-it-works.

Thank you!
Any questions?

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