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Dealing with the challenges of practicing  
usability:  
Sharing lessons learned in the trenches

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## *Top Ten Familiar Issues (1)*

- ❖ User centered design (UCD) must start from the beginning of design
- ❖ Separating usability from design may end up with a list of problems, rather than solutions
- ❖ Some data is better than no data



## *Top Ten Familiar Issues (2)*

- ❖ Usability evaluations done late in the process can still be useful
- ❖ Sometimes, people need to have an 'eye-opening' experience in order to adopt user-centered design (UCD)



### *Top Ten Familiar Issues (3)*

- ❖ "Doing" UCD and "selling" UCD require different skills, both of which are important.
- ❖ A lot of 'design issues' are really organizational issues in the design team



### *Top Ten Familiar Issues (4)*

- ❖ Sometimes allies (e.g., in Marketing, etc) may see "Usability" as their turf
- ❖ Let the 'big vision' of UCD guide you but don't let it get in the way of success
- ❖ It's a constant battle



## *UCD = from the start*

- ❖ Not just user testing
- ❖ Starts with understanding your users, including user characteristics, needs, motivations and requirements
- ❖ Don't skimp on contextual methods
- ❖ Influences conceptual design which is the most difficult to change later
- ❖ Iterate with users



## *Cases in point: Microsoft Tablet PC*

- ❖ 3 rounds of field studies
- ❖ Mixture of ethnography, contextual inquiry, field usability evaluation, both structured and "opportunistic"
- ❖ Contributed to significant evolution and change in:
  - Product concept
  - Value proposition
  - Interface design



## *HP's 1<sup>st</sup> digital camera*

- ❖ Both hardware and software (driver) design
- ❖ Had to both leverage mental models e.g., point and shoot camera, filing documents AND introduce completely new functionality
- ❖ Used a very iterative UCD process:
  - In 1 month, made ~80 turns of the design
  - In-home user testing → design changes
  - Final usability evaluation of design in US, Europe
- ❖ Design was awarded "Best Buy" status by PC Magazine, citing its Ease of Use



## *Don't separate usability from design*

- ❖ Not uncommon, especially when usability people are scarce resources
- ❖ Frustrating for all concerned
  - List of problems, not solutions
  - Difficult to integrate findings
  - Likely to "miss the mark" for the team
- ❖ Wherever possible, involve whole team
- ❖ Consider using Usability Diagnosis



## *Usability Measurement*

- ❖ Focuses on validation of design by measuring performance
- ❖ A pass/fail, or rating process
- ❖ Requires meaningful usability goals
- ❖ Focuses on key tasks
- ❖ Requires highly standardized testing
- ❖ Facilitator is primarily a test administrator



## *Usability Diagnosis*

- ❖ Goal is to give specific design guidance
- ❖ Focuses on selected design issues
- ❖ Conscious decisions about information to give or to withhold, in order to focus on questions of interest
- ❖ Flexible process to allow for hypothesis testing about source of problems
- ❖ Uses probing with progressive structure
- ❖ Facilitator is a design collaborator



## *Some data is better than no data*

- ❖ Real world constraints “muddy” research design
- ❖ Think about correct methodology AND real world tradeoffs
- ❖ Make compromises with eyes open
- ❖ Engage the team in making the tradeoffs so they buy in to the data



## *Late is better than never*

- ❖ Late-stage usability evaluations can *still* be useful
- ❖ Use them to:
  - Get the team to observe
  - Help the team integrate and use the results in whatever way is practical
  - Educate the team about how to “do it right” next time (earlier!) – development of the team over time is important too



## *Some groups need hard lessons*

- ❖ “Failures” can provide very valuable lessons
- ❖ Cautionary tales from other companies sometimes work
- ❖ Use all your resources to find good *and* bad examples



## *Some bad examples*

- ❖ Forrester report (2001)
  - Reviewed 150 websites and found most fail to support user goals
  - Prospective buyers give up 2/3 of shopping attempts
  - Journalists could only find answers on corporate PR sites 60% of time
  - 40% of job applicants at 6 major corporate websites could not complete application



## *A good example*

- ❖ Skechers.com
  - Redesigned navigation to move product selection closer to home page
  - Sales went up by 400% in the 2000 holiday season
- ❖ Many more on the web -- and in this group



## *“Doing” and “selling” UCD*

- ❖ Require different skills
- ❖ Both are important
- ❖ Many jobs require both, especially when the profession is new to the organization
- ❖ “Selling” also includes education and giving away ideas (and credit)





## *It's often a "people issue"*

- ❖ Many design issues are really organizational issues
- ❖ User data often helps solve conflicts
  - Concrete
  - Objective
  - Task-centered
- ❖ Identify key influencers and be a resource to them





## *Usability: Yours, mine or ours?*

- ❖ Allies (especially in Marketing) may see Usability as their turf
- ❖ Marketing may "own" customers'
- ❖ Paradigms are similar and different
- ❖ Address differences directly first
- ❖ Then find synergies and build involvement

	Marketing	UCD
<b>Purpose</b>	Strategic	Tactical
<b>Goal</b>	Sales	Usability
<b>Uses input?</b>	Execs	Developers
<b>Interest</b>	Patterns	Details
<b>Measure</b>	Subjective	Performance
<b>Data</b>	Self report	Behavior
<b>Samples</b>	Large	Small

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- Big vision as a guide only*
- ❖ “Vision talk” is abstract
    - Can direct energy away from solving problems or be too abstract to be useful
    - Doesn’t lead to changed behavior
  - ❖ Action “sells” UCD better
  - ❖ Vision is useful if it points to action and addresses current practice
  - ❖ Attitudes follow behavior
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## *It's a constant battle*

Many common design practices in organizations are guaranteed to produce *increasingly* design

- ❖ Rampant "featurism", e.g., "Coolness"
- ❖ Techno-centricity as a pervasive mindset
- ❖ The myth of the "technically savvy user"
- ❖ Providing customization to avoid design decisions
- ❖ "People *say* they want this feature...."
- ❖ Applying simplistic interface design guidelines out of context



## *We must actively combat these*

- ❖ Learn to recognize the common symptoms of these ways of thinking in your organization
- ❖ Counter them (of course with an eye towards self-preservation)
- ❖ Make it your theme, e.g, "remember where this led last time ....?"
- ❖ Be strategic and adapt your methods to your audience



## Conclusions

- ❖ Move *early* in the design process
- ❖ Work *with* design
- ❖ Some data is better than none
- ❖ Late can still be useful
- ❖ Use “bad outcomes” to your advantage
- ❖ “Do” AND “Sell” UCD



## Conclusions (2)

- ❖ Identify and address organizational issues
- ❖ “Allies” may need help being allies
- ❖ You need vision *and* action
- ❖ Keep “fighting the good fight”

SO:

Support each other – “It’s cold out there!”



*Because...*

*If the USER can't use it,  
It DOESN'T work!*