Usability evaluation *if wrongfully applied*

In early design
- stifle innovation by quashing (valuable) ideas
- promote (poor) ideas for the wrong reason

In science
- lead to weak science

In cultural appropriation
- ignore how a design would be used in everyday practice

The Solution - Methodology 101

the choice of evaluation methodology - if any – must arise and be appropriate for the actual problem, research question or product under consideration

Changing how you think

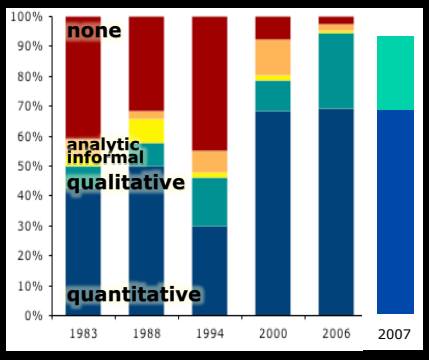
- Usability evaluation
- CHI trends
- Theory
- Early design
- Science
- Cultural appropriation

Usability Evaluation Methods

Most common (research):
- controlled user studies
- laboratory-based user observations

Less common
- inspection
- contextual interviews
- field studies / ethnographic
- data mining
- analytic/theory
- …

CHI Trends (Barkhuus/Rode, Alt.CHI 2007)



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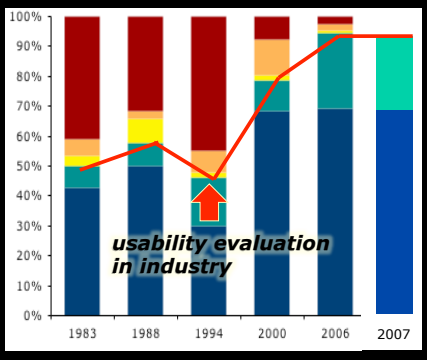
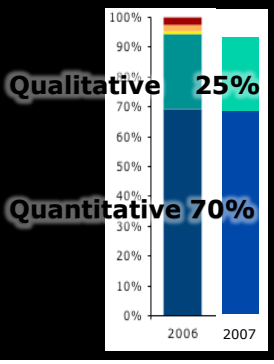
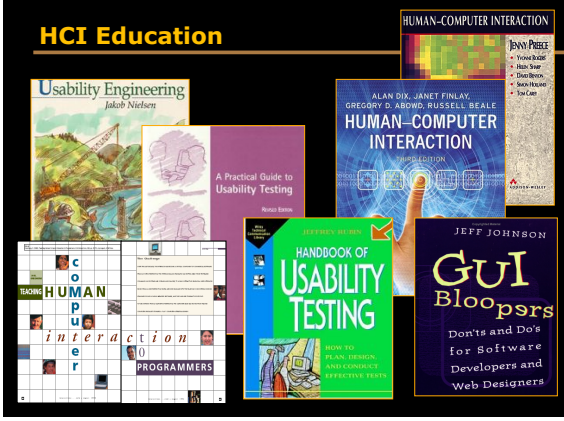


CHI Trends

User evaluation is now a pre-requisite for CHI acceptance



HCI Education



HCI Practice

Source: http://www.xperienceconsulting.com/eng/servicios.asp?ap=25

Discovery *vs* Invention (Scott Hudson UIST '07)

Discovery
- uncover facts
- detailed evaluation

Understand what is

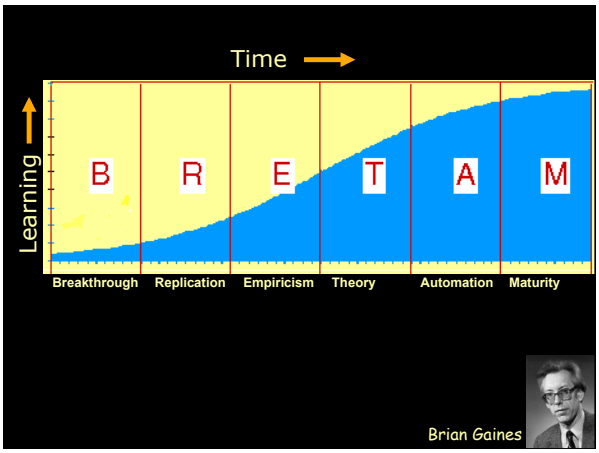
Discovery *vs* Invention (Scott Hudson UIST '07)

Discovery
- uncover facts
- detailed evaluation

Understand what is

Invention
- create new things
- refine invention

Influence what will be


Time
Learning
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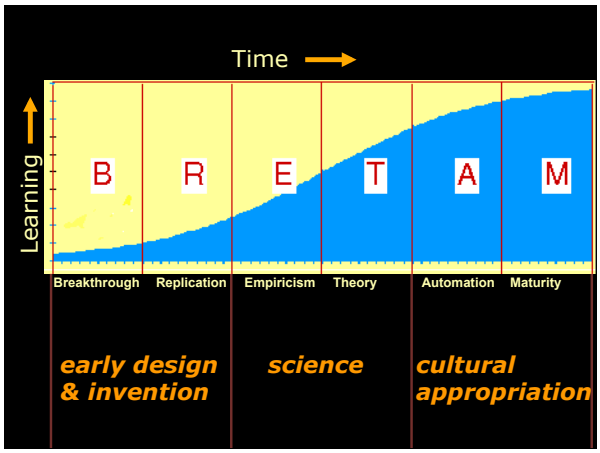
Breakthrough
Replication
Empiricism
Theory
Automation
Maturity
Brian Gaines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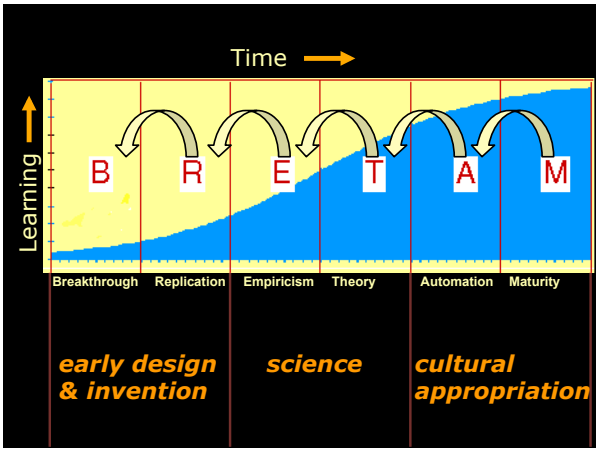
early design & invention
science
cultural appropriation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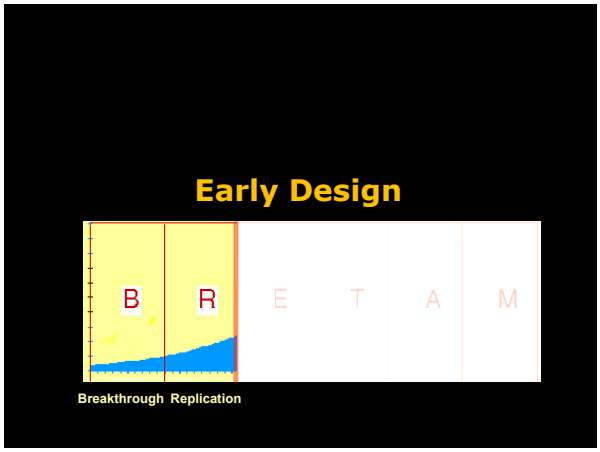
Early Design
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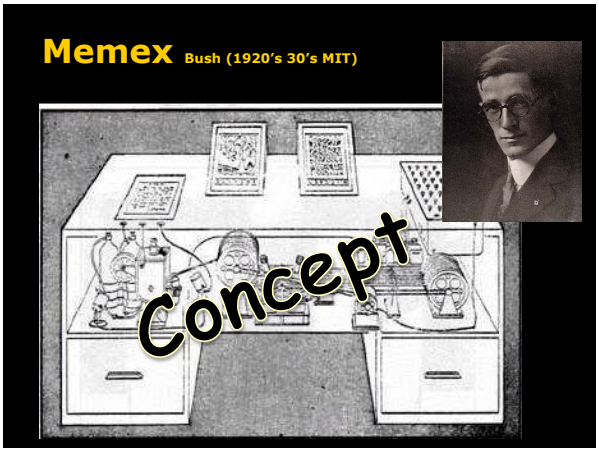
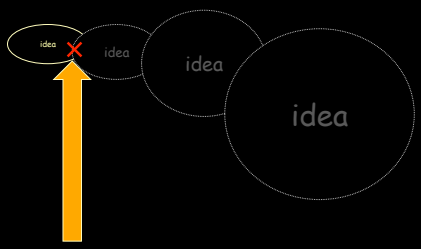

Memex
Bush (1920's 30's MIT)
Concept


Reject
Unimplemented and untested design.
Microfilm is impractical. The work is premature and untested.
Resubmit after you build and evaluate this design.

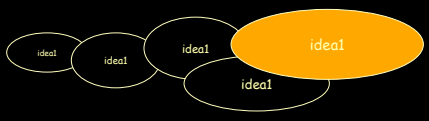
Early design

Early usability evaluation can kill a promising idea
- focus on negative 'usability problems'



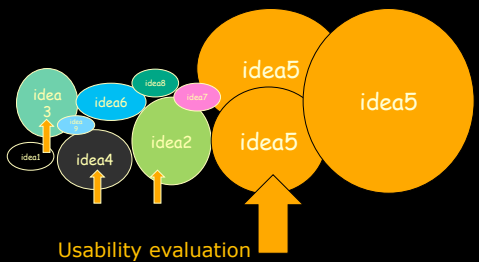
Early designs

Iterative testing can promote a mediocre idea



Early design

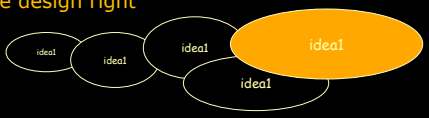
Generate and vary ideas, then reduce



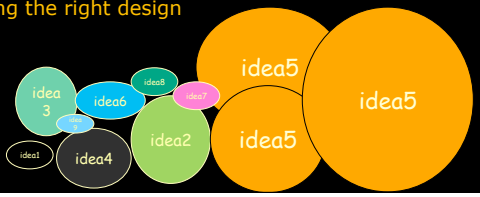
Usability evaluation
the better ideas

Early designs as working sketches

Getting the design right

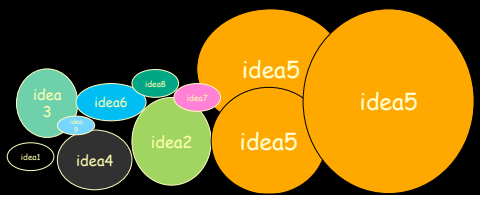


Getting the right design

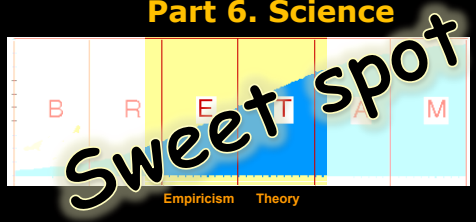


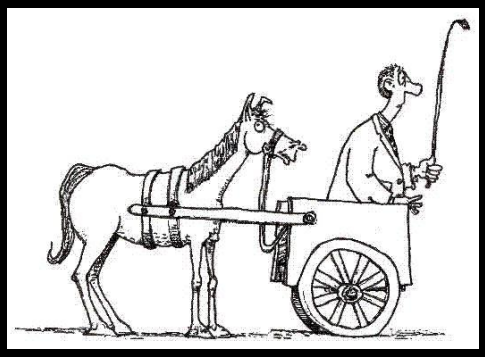
Early designs as working sketches

Methods:
- idea generation, variation, argumentation, design critique, reflection, requirements analysis, personas, scenarios contrast, prediction, refinement, …



Part 6. Science





Source: whatitslikeontheinside.com/2005/10/pop-quiz-whats-wrong-with-this-picture.html

Research process

Typical usability tests
- show technique is better than existing ones

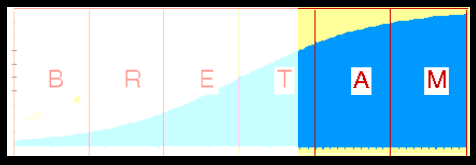
Existence proof: one example of success

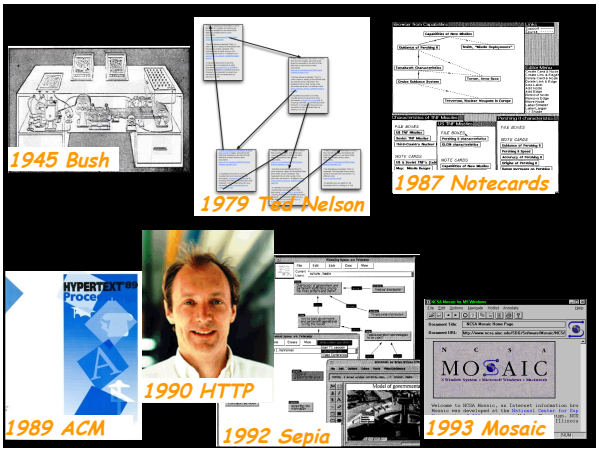
Research process

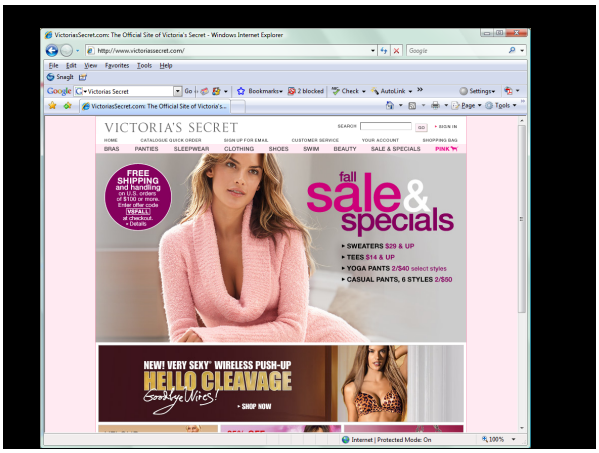
Risky hypothesis testing
- try to disprove hypothesis
- the more you can't, the more likely it holds

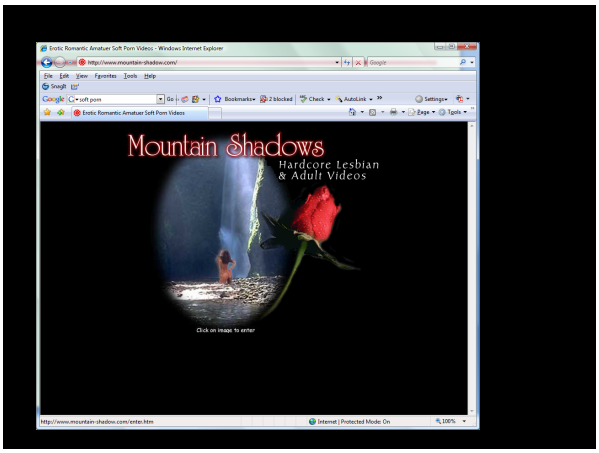
What to do:
- test limitations / boundary conditions
- incorporate ecology of use
- replication

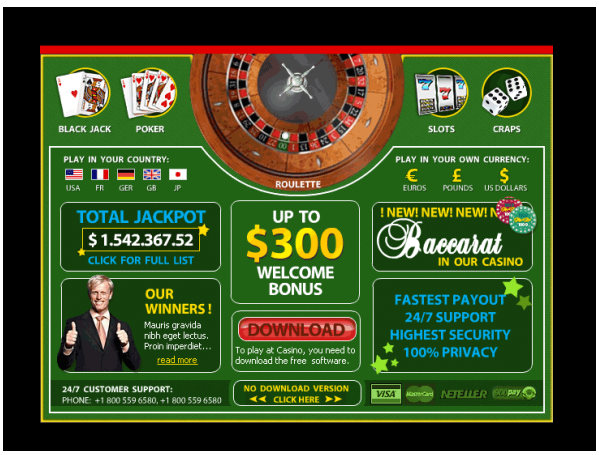
Part 6. Cultural Appropriation

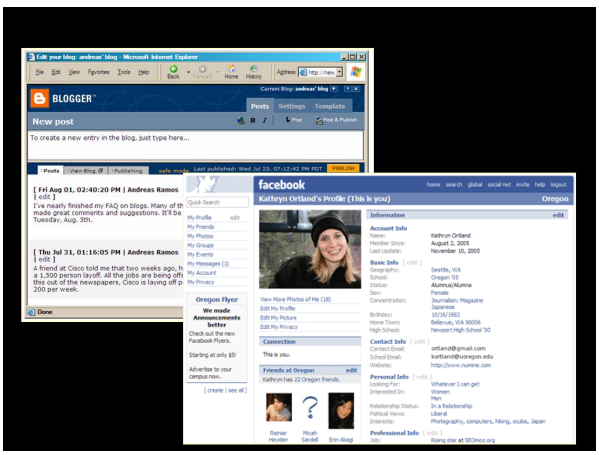












Part 7. What to do

More Appropriate Evaluation

Good Fit of Method to Design

The choice of evaluation methodology - if any – must arise and be appropriate for the actual problem or research question under consideration

- argumentation
- design critiques
- design competitions
- visions
- inventions
- prediction
- reflection
- design rationales
- …

- case studies
- field studies
- cultural probes
- extreme uses
- requirements analysis
- contextual inquiries
- ethnographies
- eat your own dogfood
- …

We decide what is good research and practice

There is no them