

User Interface Software Project

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Interaction design basics

Content derived from Dix, Finlay, Abowd, Beale <http://www.hcibook.com/>

interaction design basics

- design:
 - what it is, interventions, goals, constraints
- the design process
 - what happens when
- users
 - who they are, what they are like ...
- scenarios
 - rich stories of design
- navigation
 - finding your way around a system
- iteration and prototypes
 - never get it right first time!



interactions and interventions

- design interactions not just interfaces
 - not just the immediate interaction
 - e.g. stapler in office – technology changes interaction style
 - manual: write, print, staple, write, print, staple, ...
 - electric: write, print, write, print, ..., staple
- designing interventions not just artifacts
 - not just the system, but also ...
 - documentation, manuals, tutorials
 - what we say and do as well as what we make



What is design?

What is design?

Achieving Goals Within Constraints



Achieving Goals Within Constraints

- goals
 - who is it for, why do they want it
- constraints
 - materials, platforms
- trade-offs



Understand your materials

Understand your materials



Understand your materials

- For Human-Computer Interactions
 - understand computers
 - limitations, capacities, tools, platforms
 - understand people
 - psychology, social
 - expect human error
 - understand the interaction between them



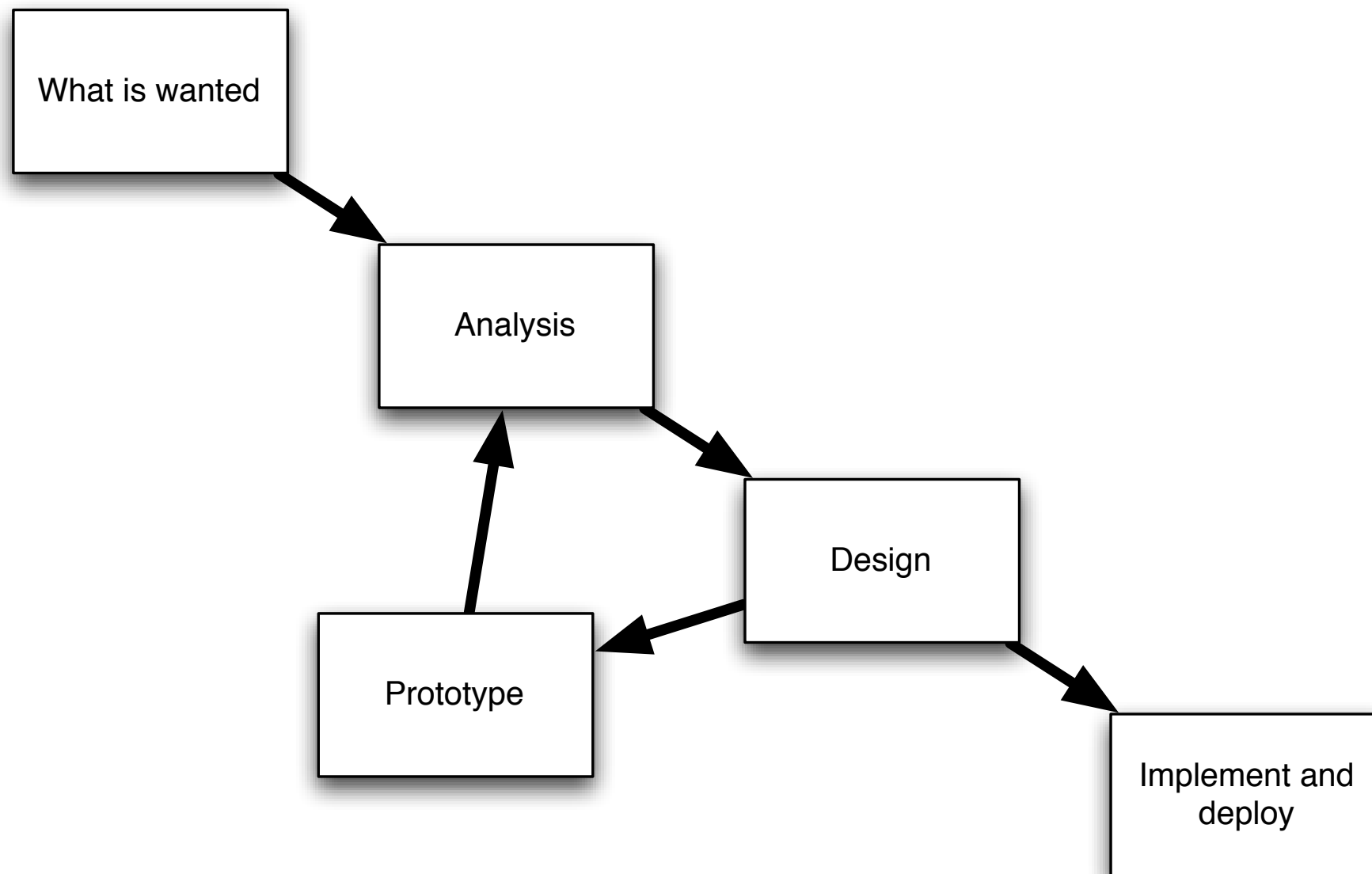
To err is human

- accident reports ..
 - aircrash, industrial accident, hospital mistake
 - inquiry ... blames ... 'human error'
- but ...
 - concrete platform breaks because too much weight
 - blame 'platform error' ?
 - ... no – it's a design error
 - we know how concrete behaves under stress
- human 'error' is normal
 - we know how users behave under stress
 - so design for it!
- treat the user at least as well as physical materials

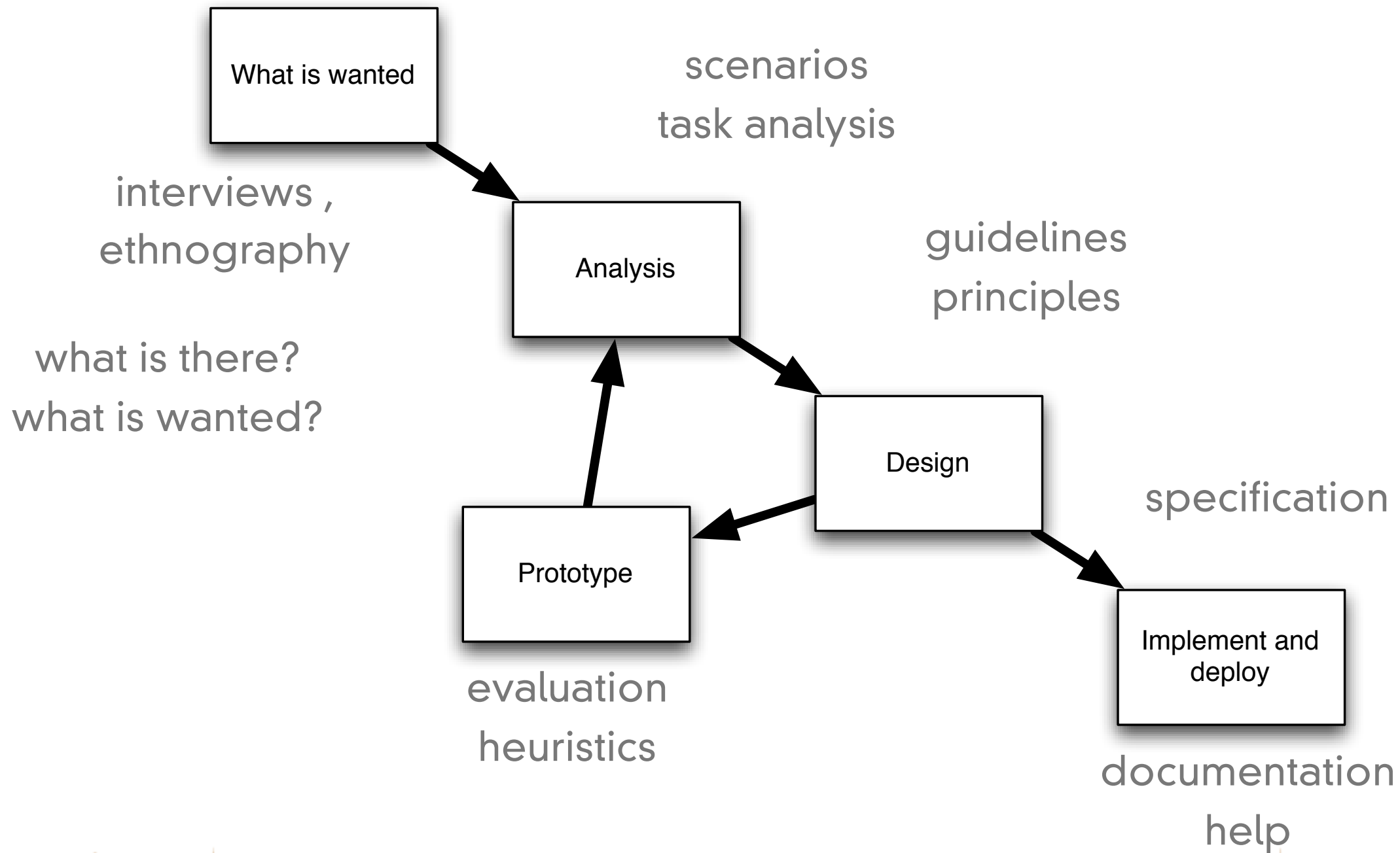


Focus on the user

Design Process



Design Process



Steps...

- requirements
 - what is there and what is wanted ...
- analysis
 - ordering and understanding
- design
 - what to do and how to decide
- iteration and prototyping
 - getting it right ... and finding what is really needed!
- implementation and deployment
 - making it and getting it out there

