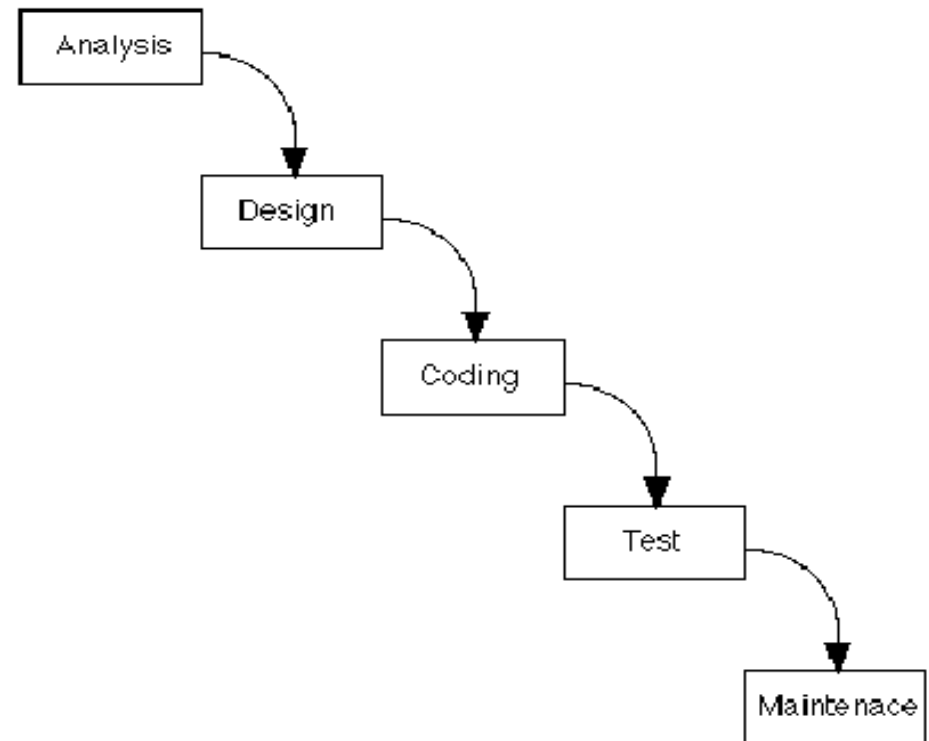# CS4826 HCI Tutorial Week 5

- HCI Models
  - Describe the activities involved in Human-Computer Interaction work
  - Shows how different activities are related to one another
  - How to develop the design or re-design of interactive systems?
  - Lifecycle models
 - Gives Developers & Managers a overall view of the development effort

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- Waterfall Model
  - Generally know in Software Engineering
  - Linear Model
  - Requirements change
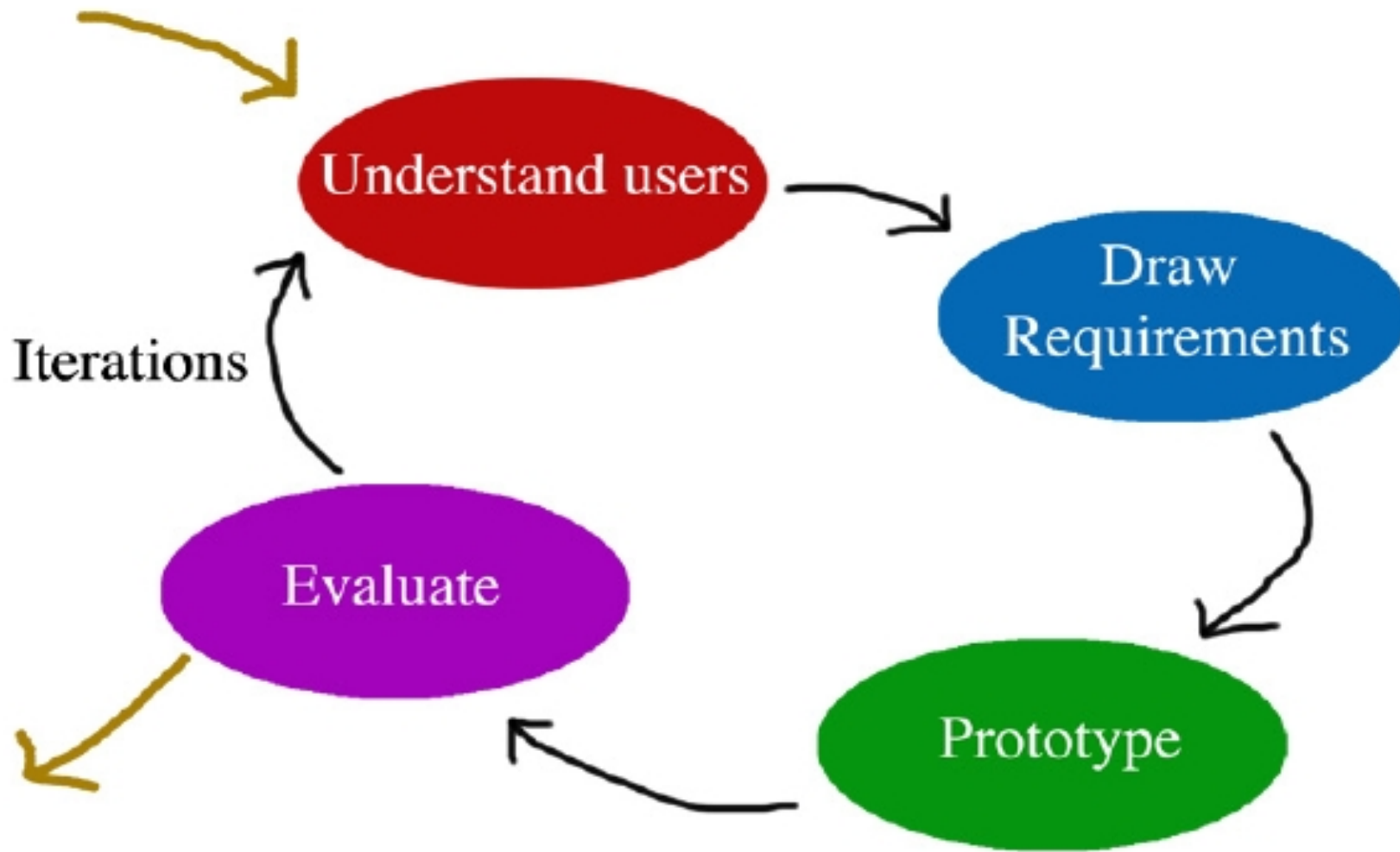 - Feedback & Iteration applied
  - No evaluation with users

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- No ordering of activities specified

- Ability to move between any activities

- Evaluation is central
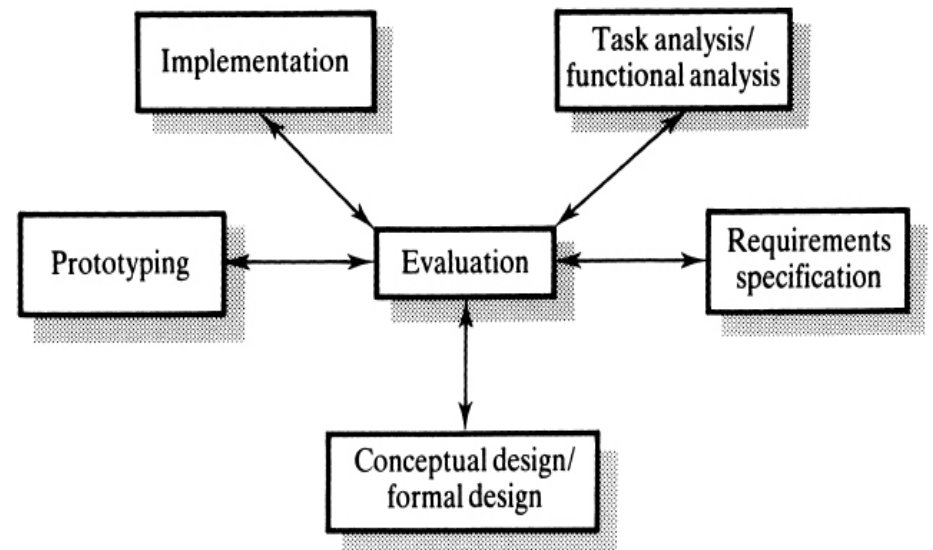
The User-Centred Design Process

Understand users

Draw Requirements

Prototype

Evaluate

Iterations

(ISO 13407)

Understand Users

- Active involvement of users

  - Clear understanding of the user and the requirements needed for them to carry out their tasks

  - Who are users?

    - What are they trying to do? How?
    - What is the role of technology?

- Use a range of methods to understand users:

  - Structured interviews, questionnaires, task analysis, cognitive walkthrough, Observing, shadowing, participant observation

Draw Requirements

- Creating a set of requirements that the system should adhere to so it
  - Requirement: Is a statement about what a product should do or how it should perform
  - Types of requirements
    - Functional requirements
    - Non-functional requirements
      - Data, environmental, performance, etc.
      - Usability requirements
- Methods of developing requirements
  - Brainstorming, Scenario's...

Prototype

- A mockup of the system that represents some functionality

  - Why?

- Different levels of prototyping

  - Low fidelity

  - Medium fidelity

    - http://www.youtube.com/watch?v=NwVBzx0LMNQ

  - High fidelity

Evaluation

- To see how well the system matches the user's requirements

- Evaluation methods

  - Analytical

  - Empirical

    - Lab tests
    - Field trials