

# User Interface

What to How

# What is a User Interface ?

# Human-computer interaction

*“the discipline concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them”*

- ACM Special Interest Group on Computer-Human Interaction Curriculum Development Group. ACM SIGCHI curricula for human-computer interaction. Technical report, ACM, New York, 1992

# Interface Design

- Designing interactive products to support people in their everyday and working lives
  - Sharp, Rogers and Preece (2002)
- The design of spaces for human **communication** and **interaction**
  - Winograd (1997)

# Why we need a good User Interface ?

# Our Customer is Our KING ????



# The Facts of Informatics Engineer in User Interface Design



# The Goal is Usability

Usability is the measure of the quality of a user's experience when interacting with a product or system — whether a Web site, a Software application, mobile technology, or any user operated device.

Source :<http://www.usability.gov/>



# The Important of Usability

- Research by User Interface Engineering, Inc., shows that people cannot find the information they seek on Web sites about 60% of the time. This can lead to wasted time, reduced productivity, increased frustration, and loss of repeat visits and money.

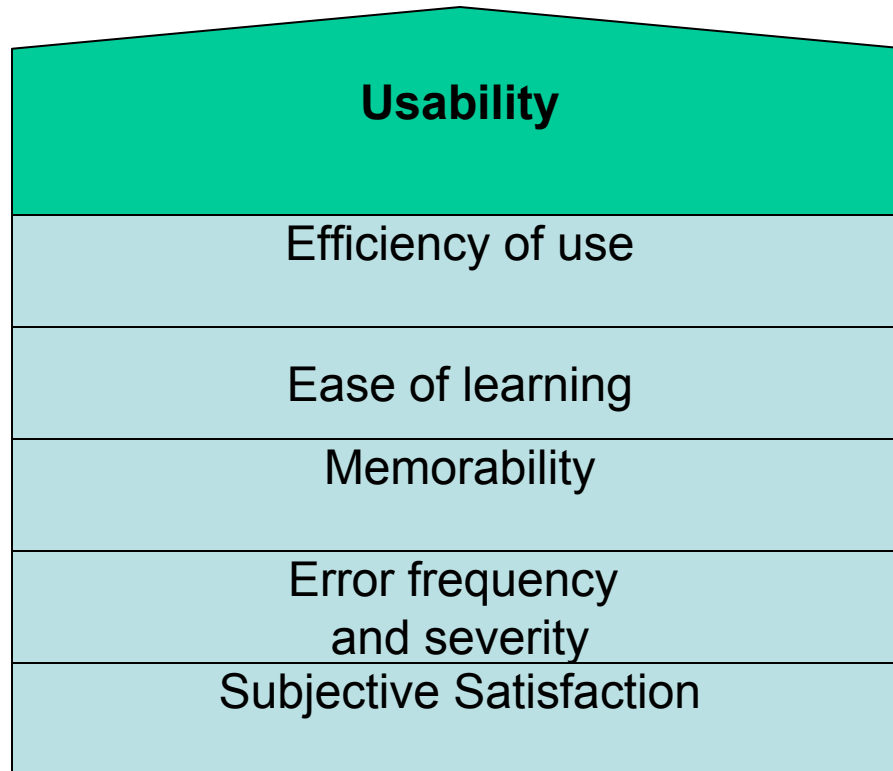
Other sources report:

- "There are about 43 million Web sites, and no one knows which ones are usable. The best sites we've found are usable only 42 percent of the time, and none that we have studied are usable a majority of the time ...."
- Studies by Forrester Research estimate several costs of bad site design. The two most striking are:
  - Losing approximately 50% of the potential sales from a site as people can't find what they need
  - Losing repeat visits from 40% of the users who do not return to a site when their first visit resulted in a negative experience

Site design guru Jakob Nielsen reports:

- "Studies of user behavior on the Web find a low tolerance for difficult designs or slow sites. People don't want to wait. And they don't want to learn how to use a home page. There's no such thing as a training class or a manual for a Web site. People have to be able to grasp the functioning of the site immediately after scanning the home page — for a few seconds at most."

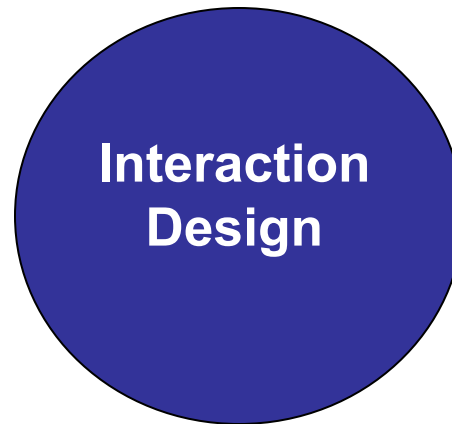
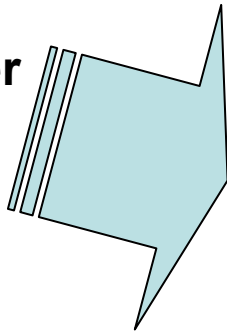
# Usability Factors



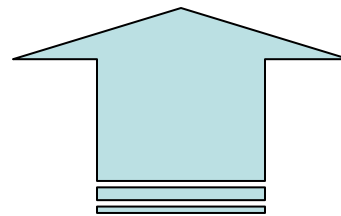
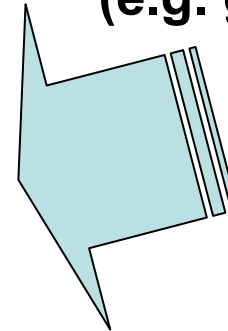
Source :<http://www.usability.gov/>

# Relationship between ID, HCI and other fields

**Academic disciplines**  
(e.g. computer science, psychology)

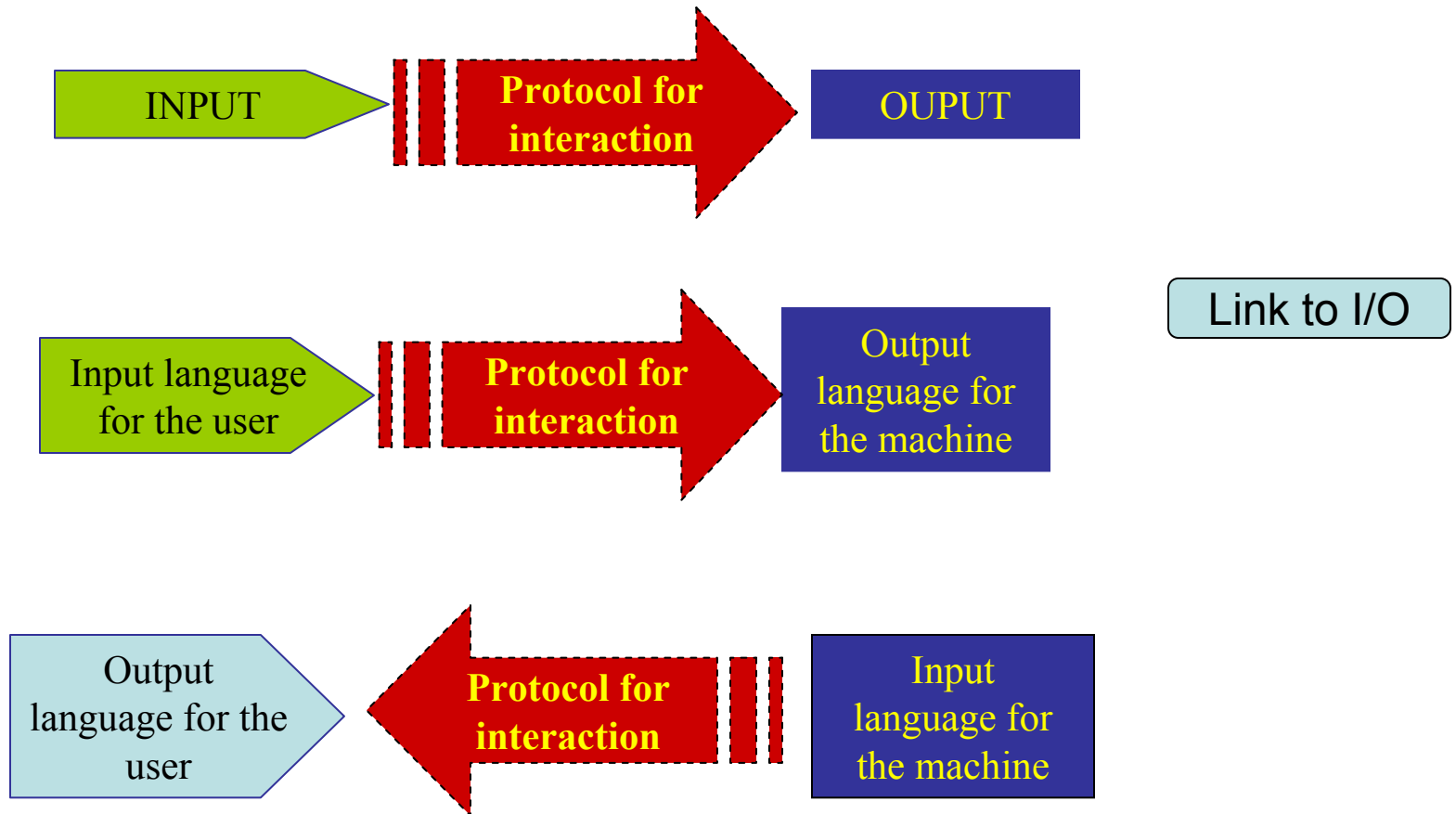


**Design practices**  
(e.g. graphic design)

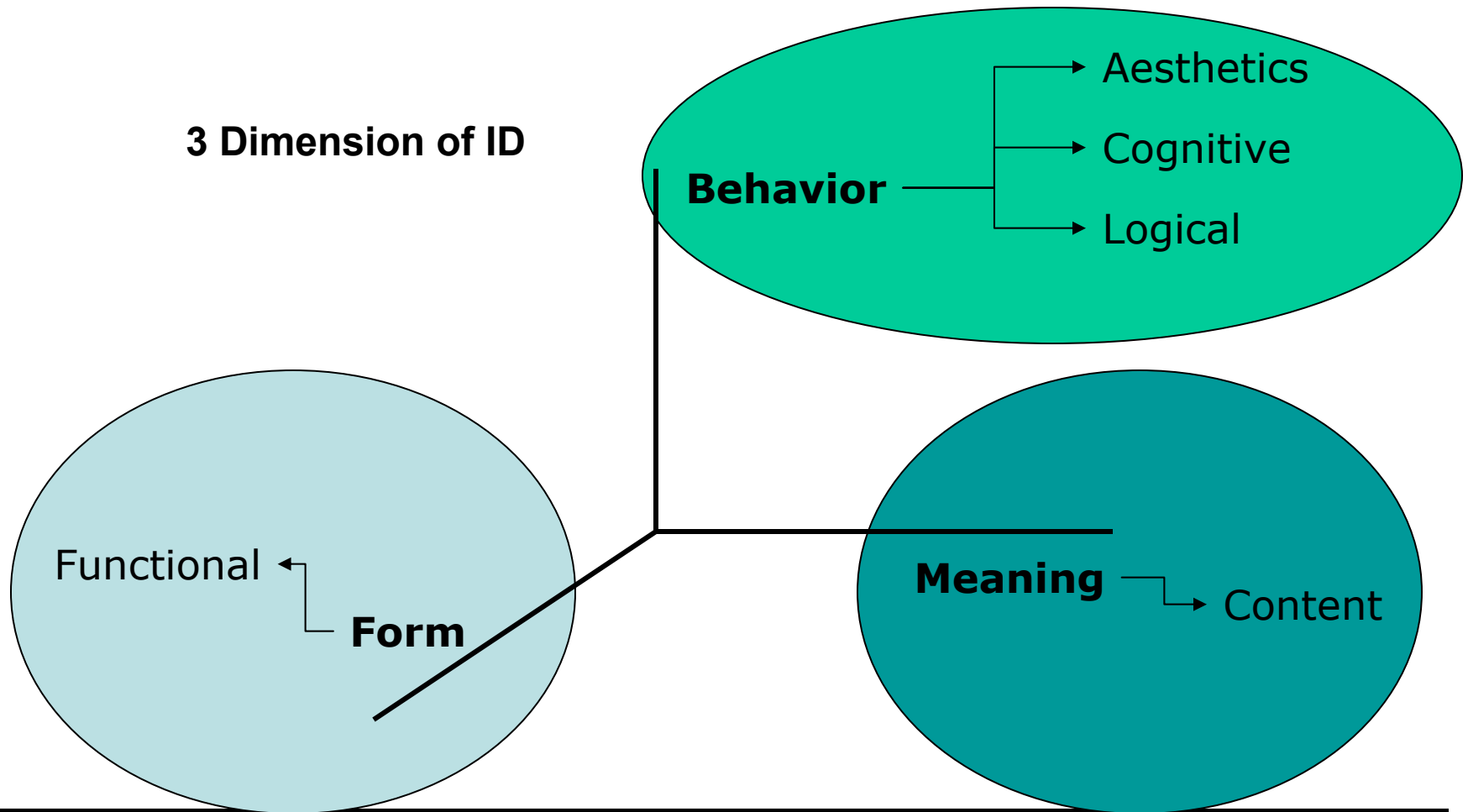


**Interdisciplinary fields**  
(e.g. HCI, CSCW, AIS)

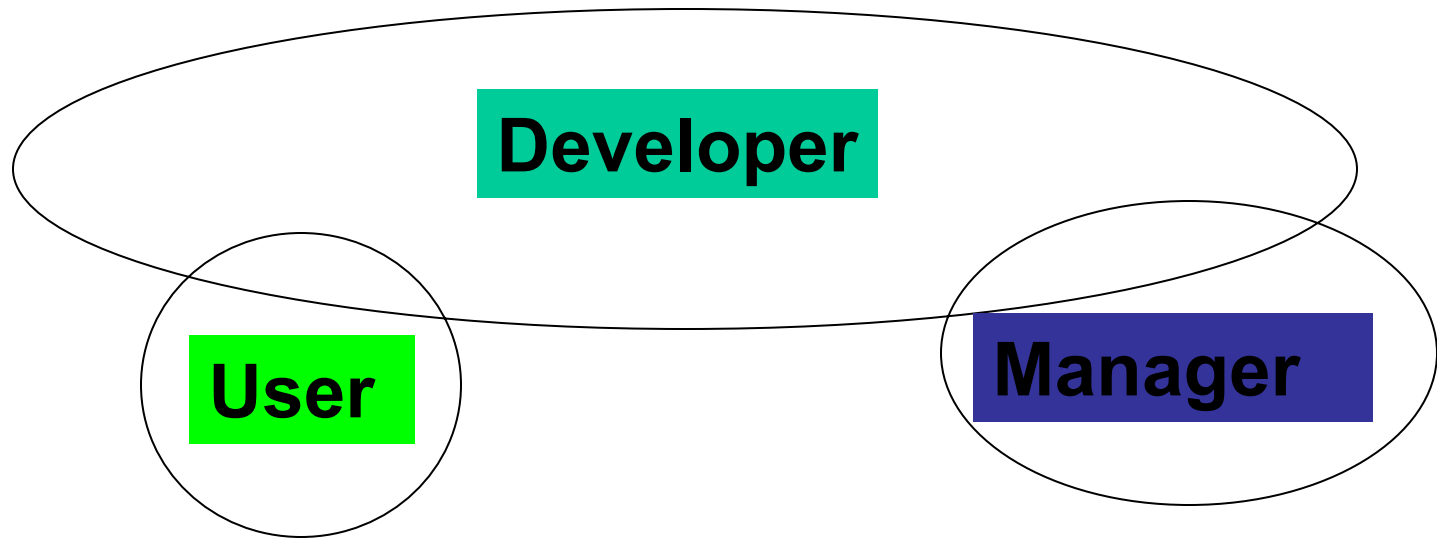
# Interface Components



# There are Trend in Interface Design



# Who Does It ?



# Today.....We need interface

## In all aspect of living



# HOW ?

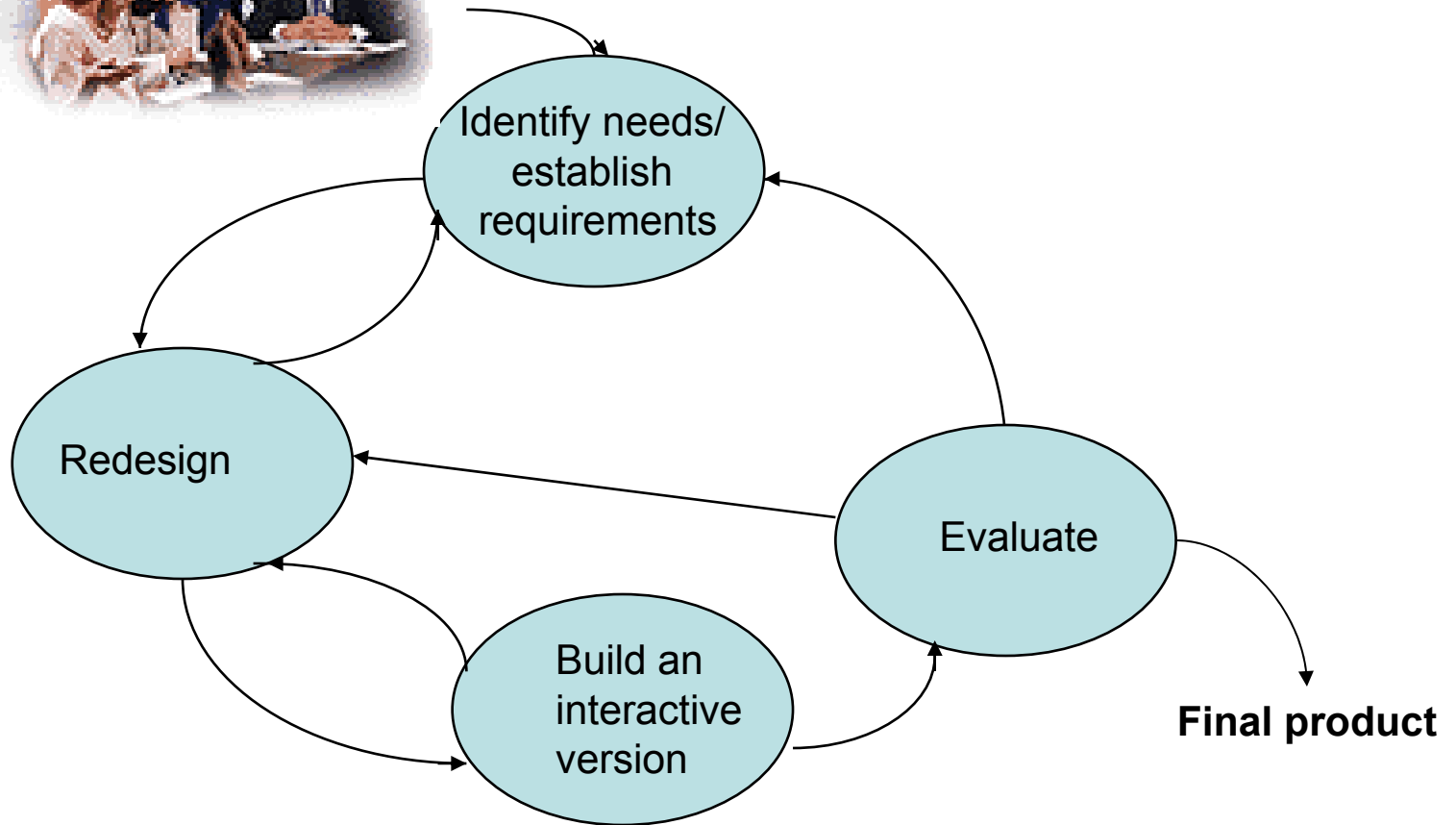




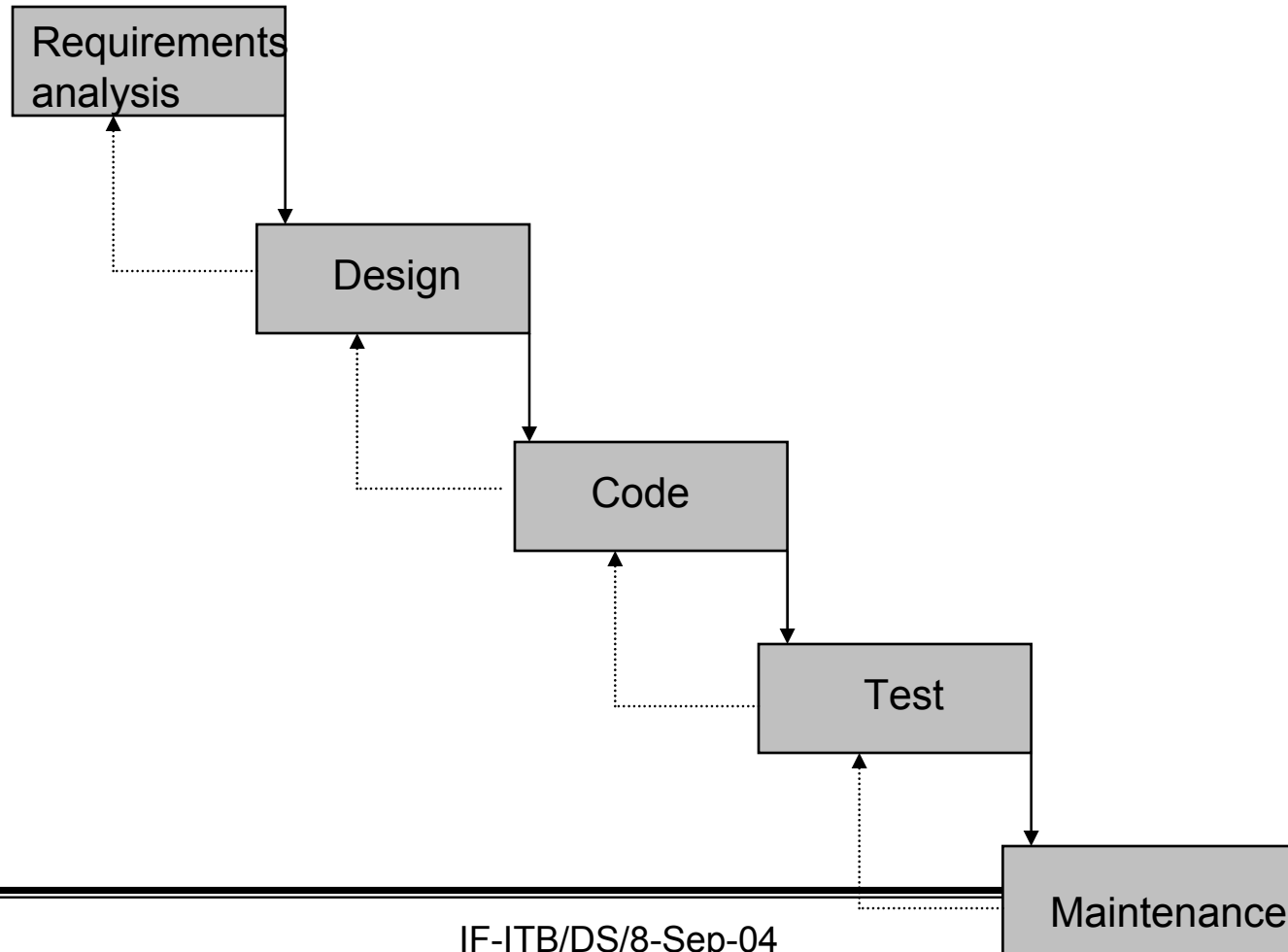
# Lifecycle models

- Show how activities are related to each other
- Lifecycle models are:
  - management tools
  - simplified versions of reality
- Many lifecycle models exist, for example:
  - from software engineering: waterfall, spiral, JAD/RAD, Microsoft
  - from HCI: Star, usability engineering

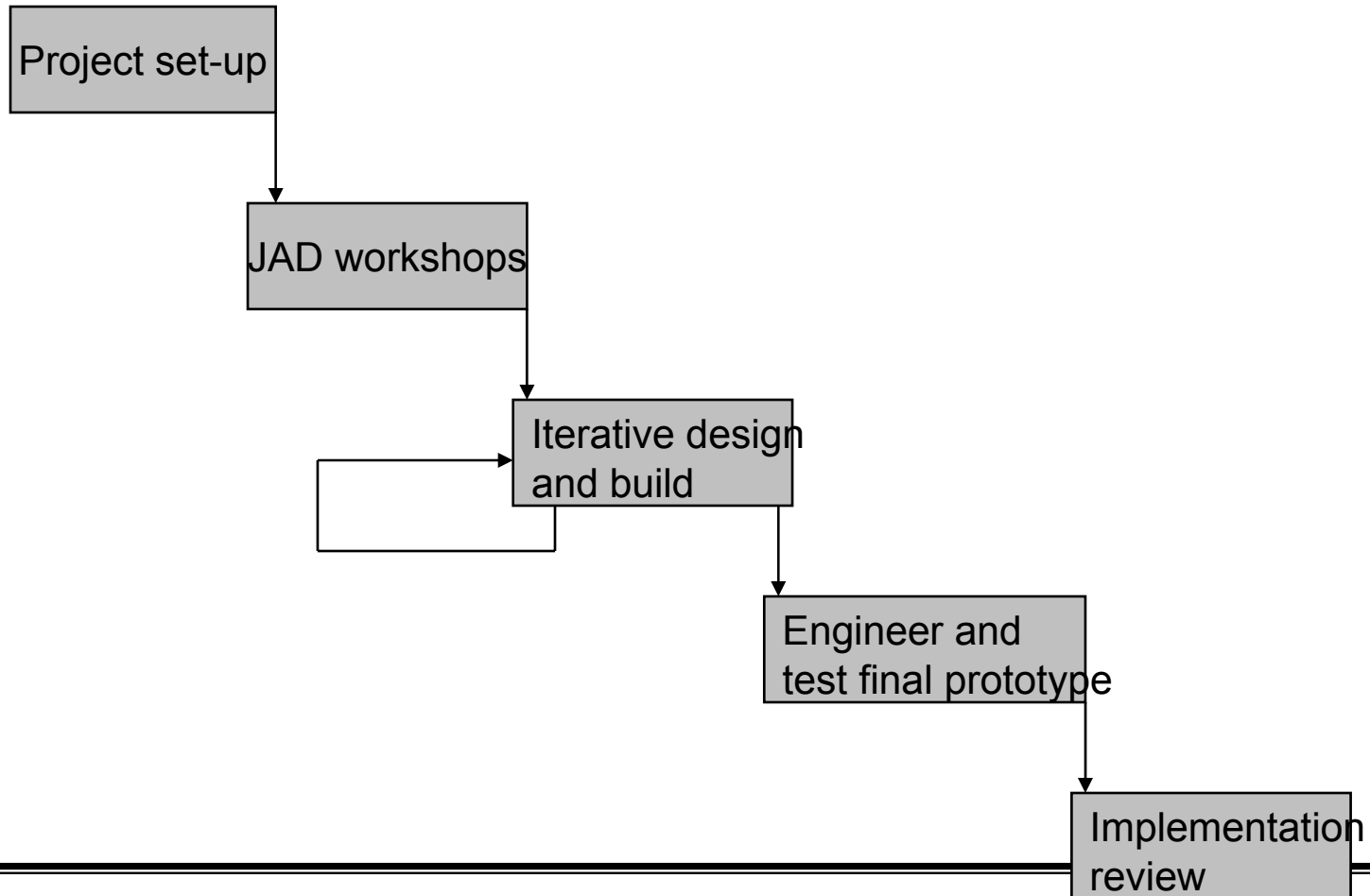
# A simple interaction design model



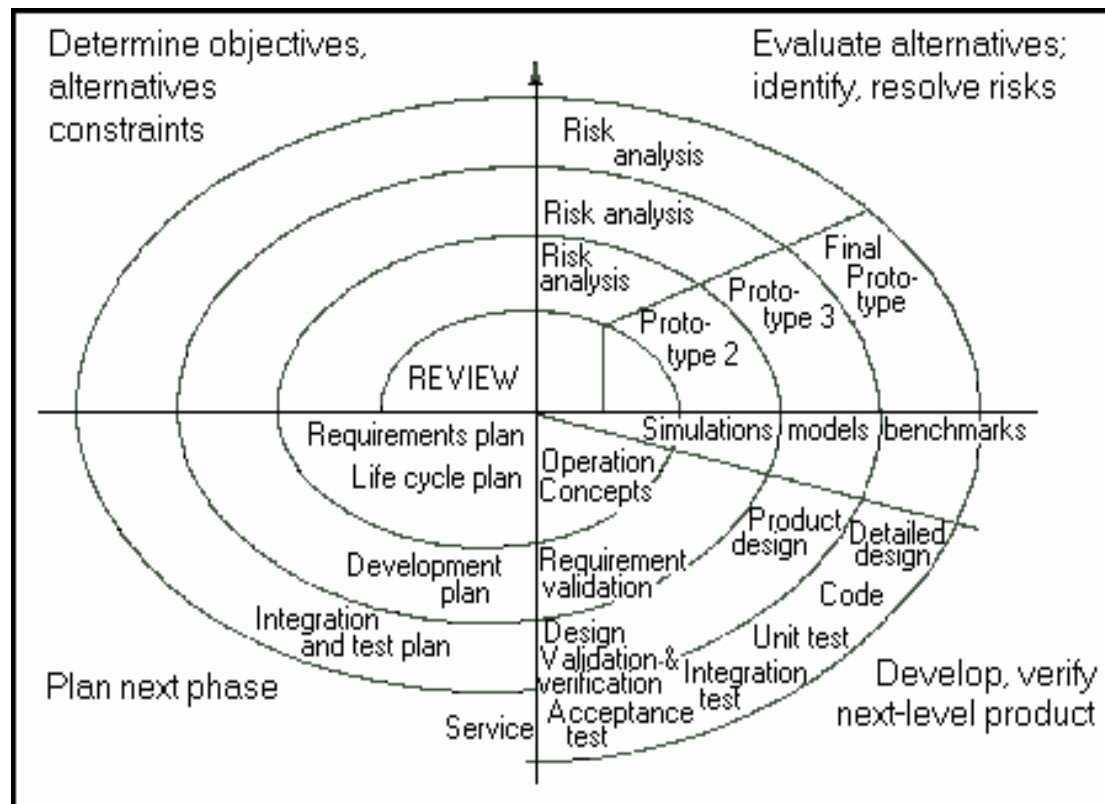
# Traditional 'waterfall' lifecycle



# A Lifecycle for RAD (Rapid Applications Development)



# Spiral Lifecycle model

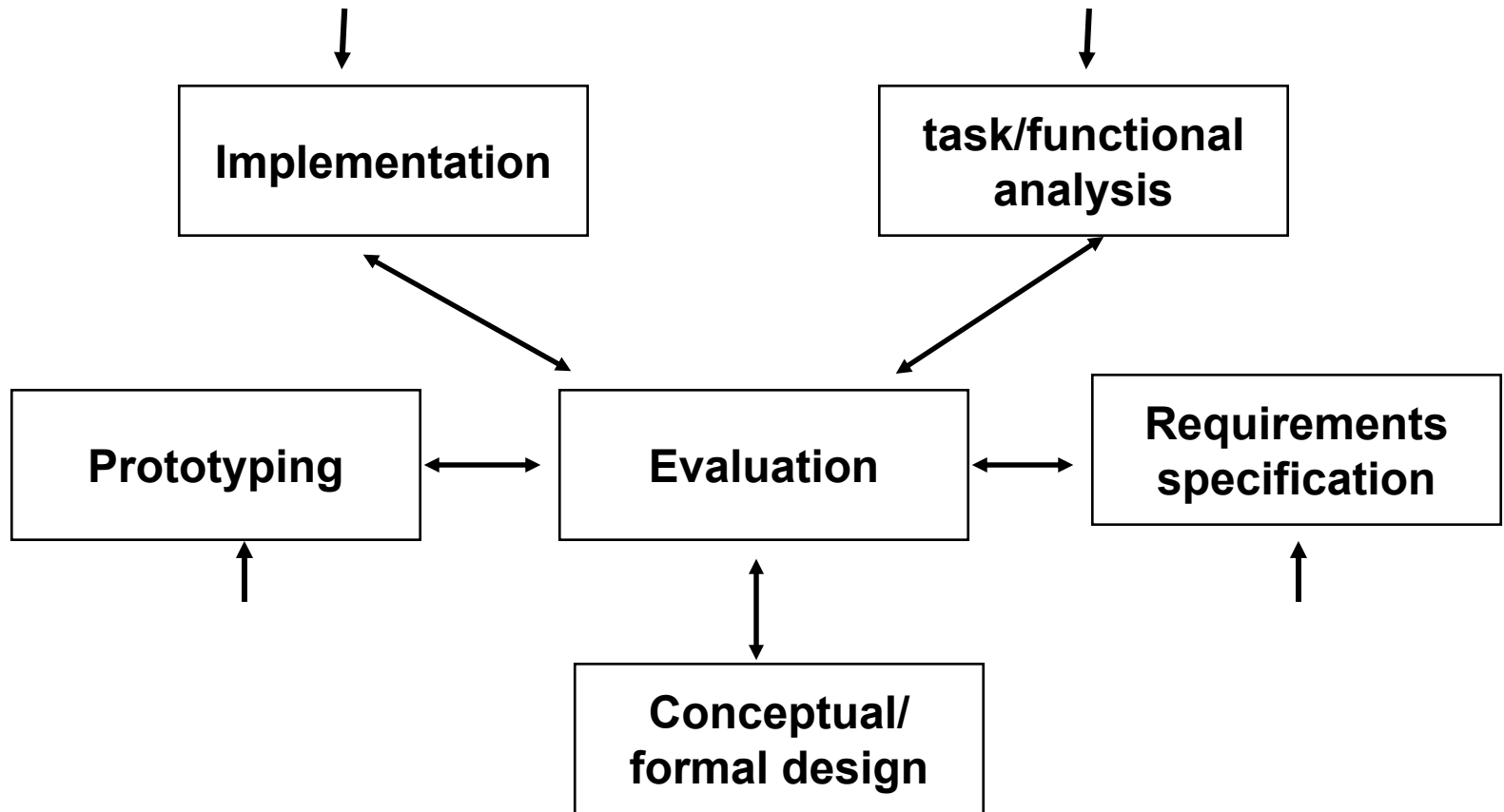


From [ctr.umkc.edu/~kennethjuwng/spiral.htm](http://ctr.umkc.edu/~kennethjuwng/spiral.htm)

# The Star lifecycle model

- Suggested by Hartson and Hix (1989)
- Important features:
  - Evaluation at the center of activities
  - No particular ordering of activities. Development may start in any one
  - Derived from empirical studies of interface designers

# The Star Model (Hartson and Hix, 1989)



# CASE

- Cow Milking in Netherlands
- How to make your secretary use office application
- How to encourage a children to use PC



the most  
**INTERFACE = Communication**  
important thing

?????

# Communication $\neq$ One Way



**User interface is about communication**

**Then, we have to treat**



**User Interface as  
a two way street**

# Remember !!

To communicate with  
your User