

# USER CENTERED DESIGN (UCD)

TEAM 11



# Design problems



# Design problems



# Design problems



# Design problems





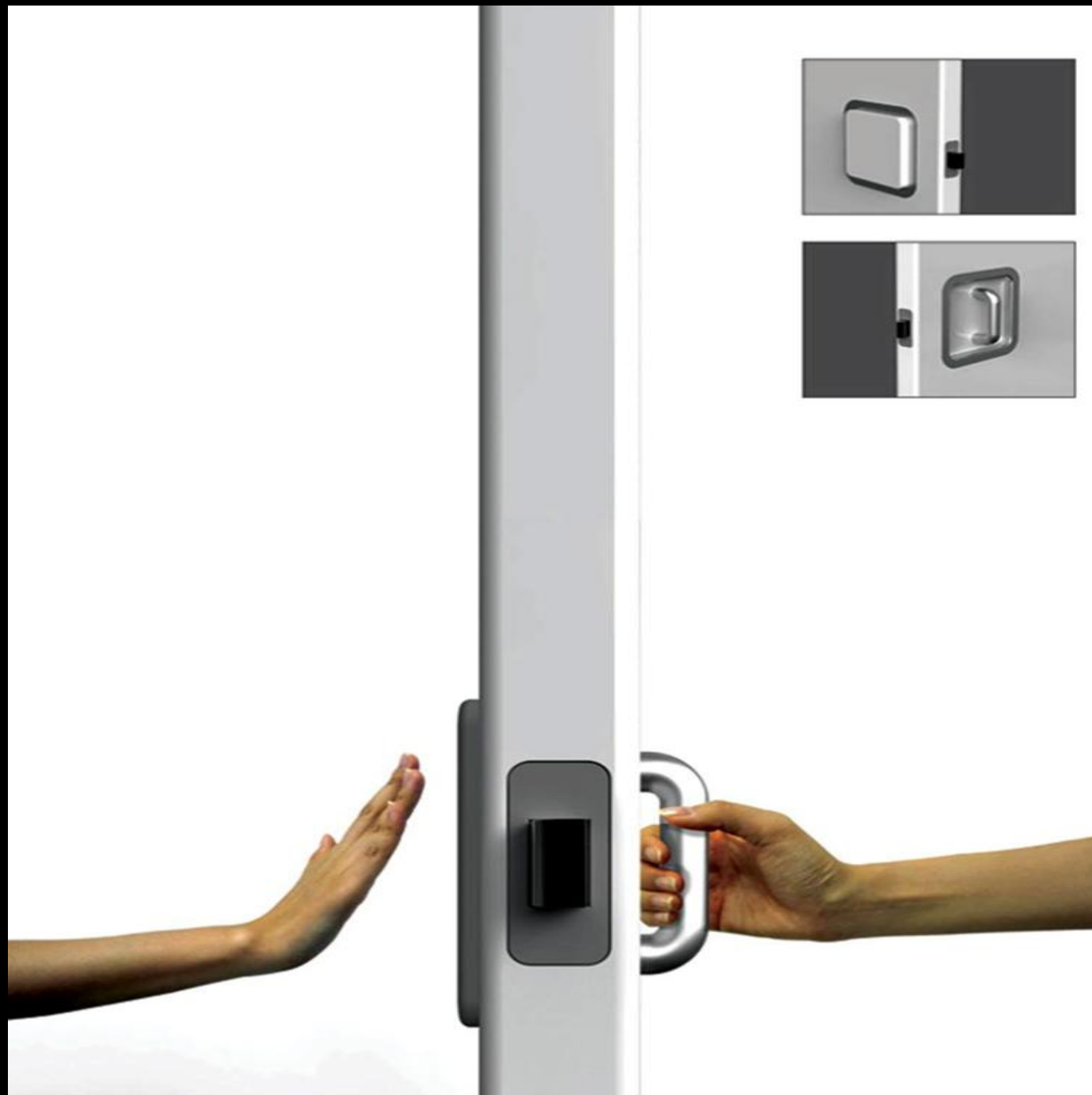






# Usability: the name of the game!





# UCD - It's about communication!



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# UCD - It's about communication!



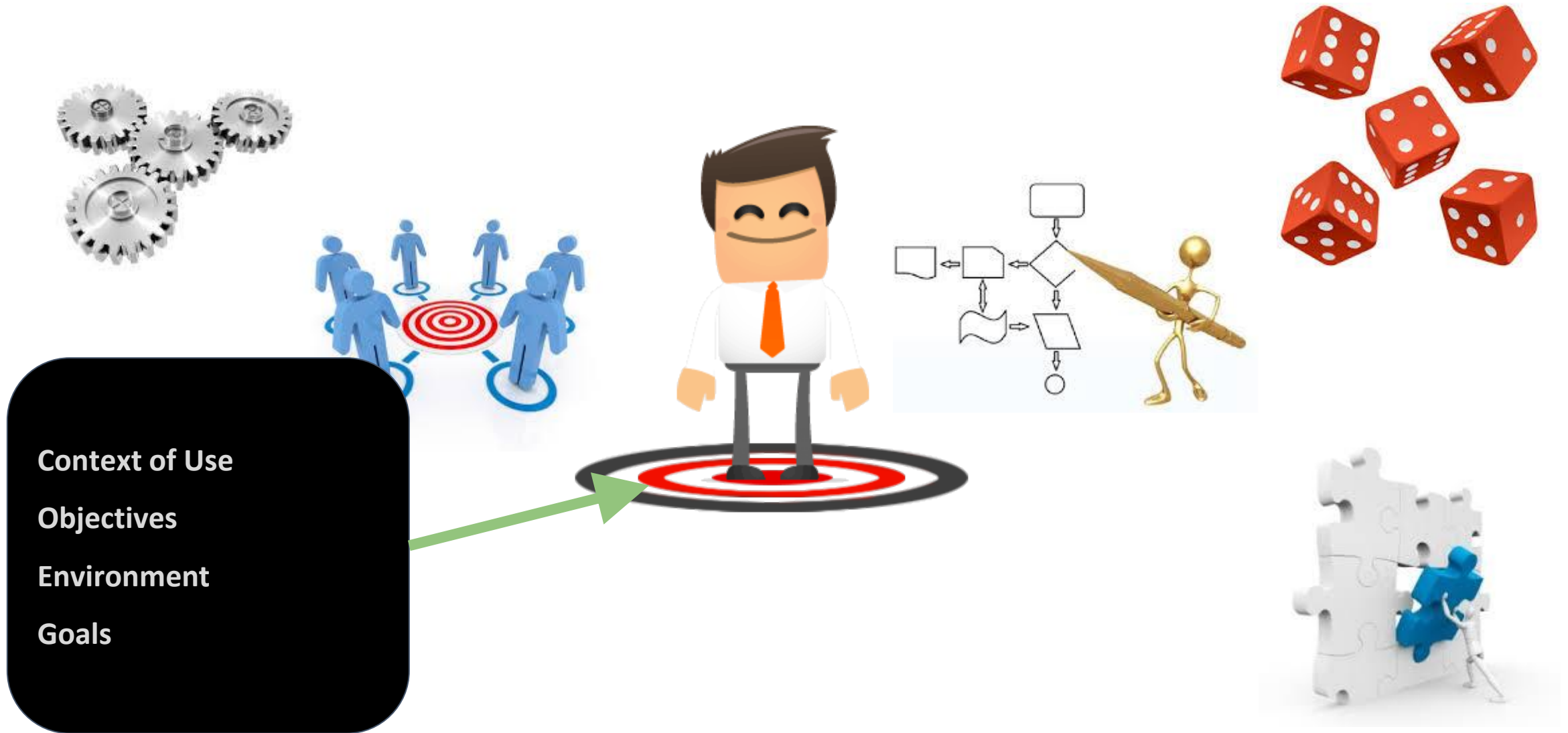
# UCD - It's about communication!



# UCD - User at the center of it all...

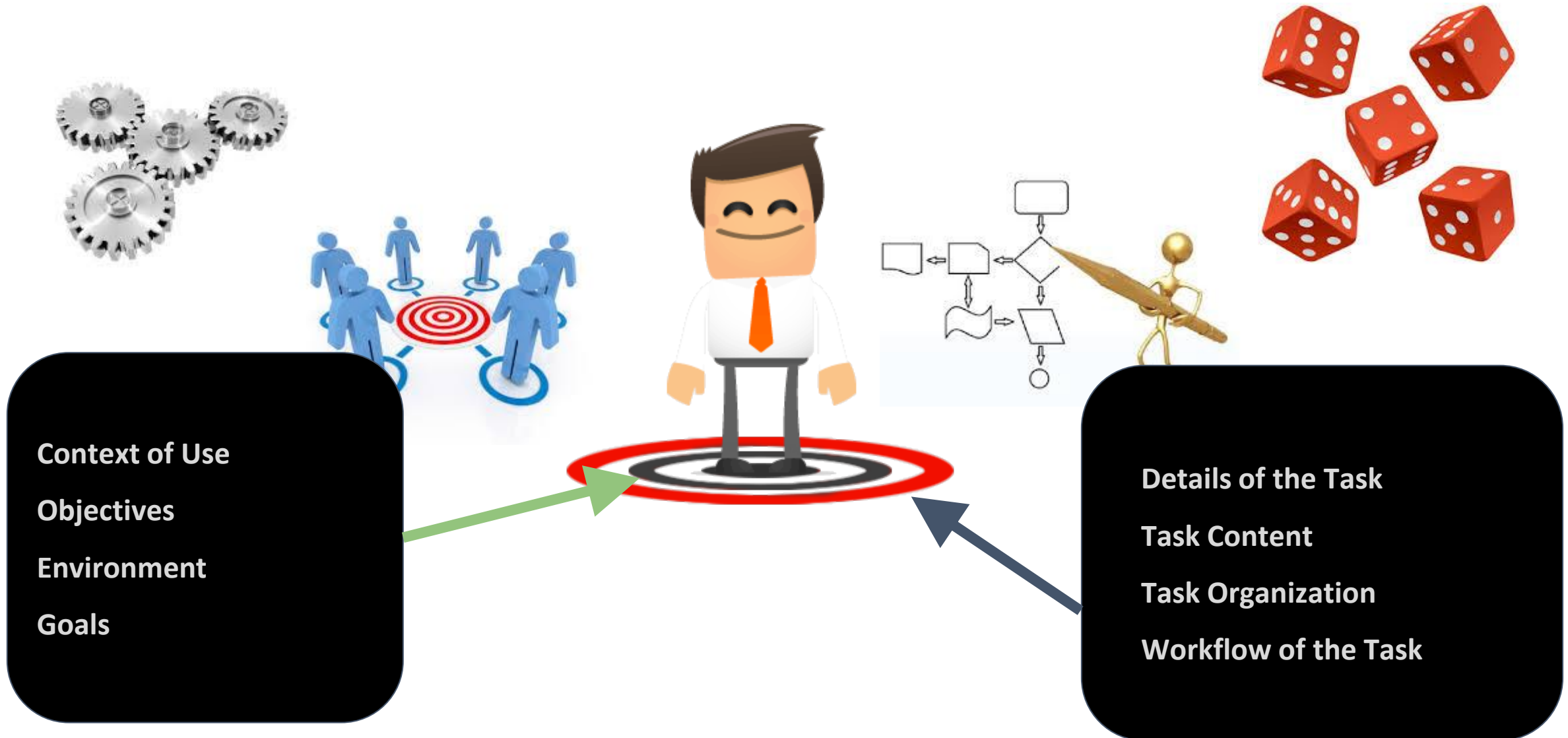


# UCD - User at the center of it all...



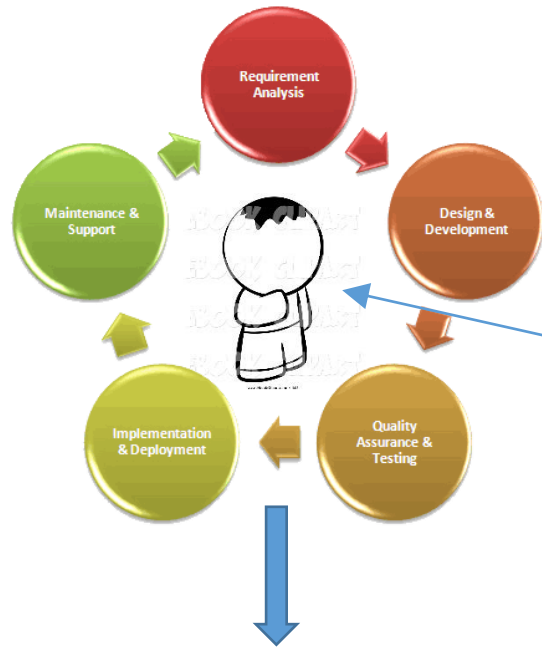


# UCD - User at the center of it all...

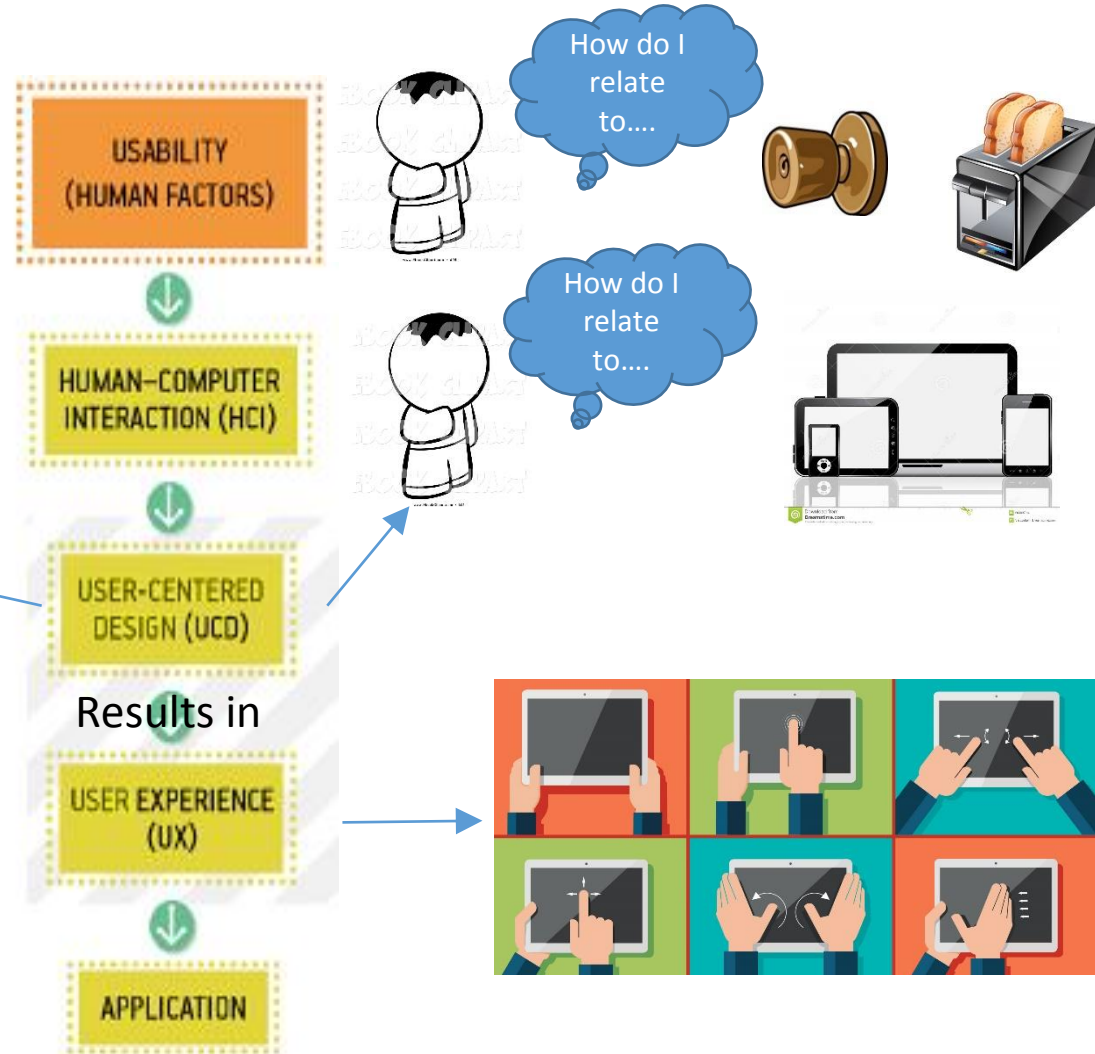


# What isn't UCD?

- UCD is NOT usability.



Removes ambiguity and gets to the heart of what the user wants.

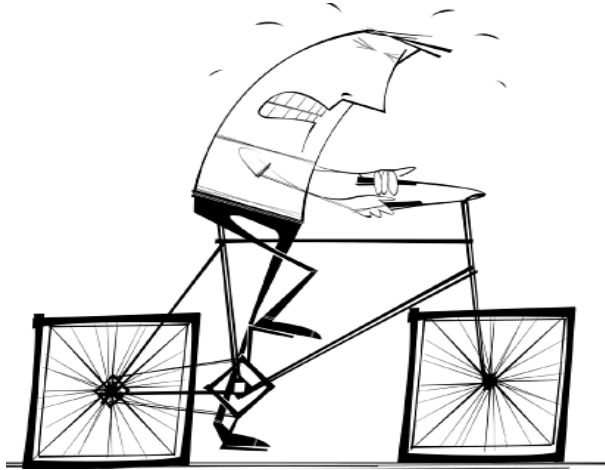


App's UX > Sum of its parts

# What isn't UCD?

- UCD is NOT subjective.
  - UCD works against **subjective assumptions** about user behavior.
  - PROVE THAT YOUR DESIGN IS EFFECTIVE!
  - Conduct Usability studies
  - Remember “Numbers don’t lie”.

Design based on whims & assumptions



Design based on data from usability studies



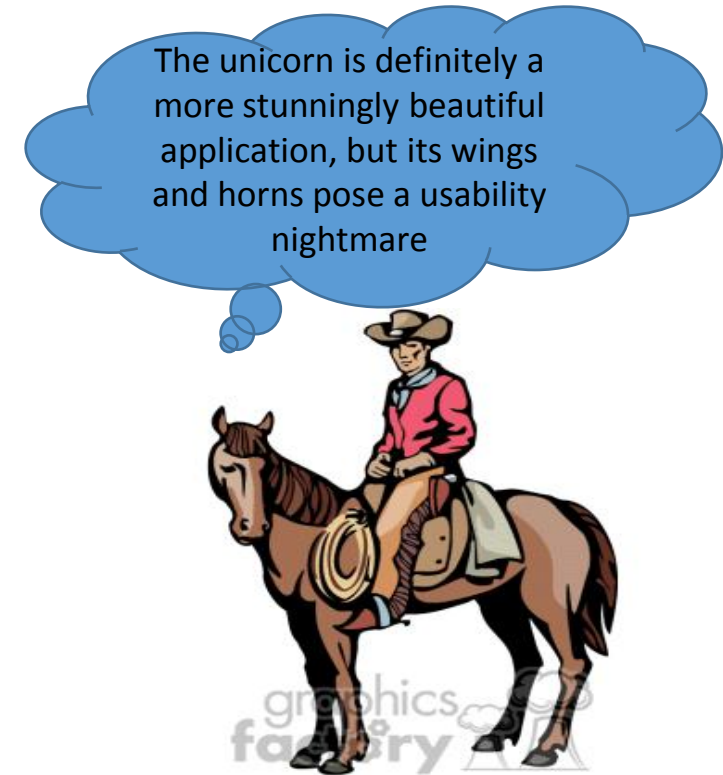
# What isn't UCD?

- UCD is NOT just design.
  - Not just about prettiness.
  - Concept of being **user-focused**: Is it about flashy animation? WRONG!
  - UCD makes an app user-focused.
  - Remember “UI is not the only focus”.
- Example: Cowboy's design purpose to round up cattle

Option 1:



Option 2:

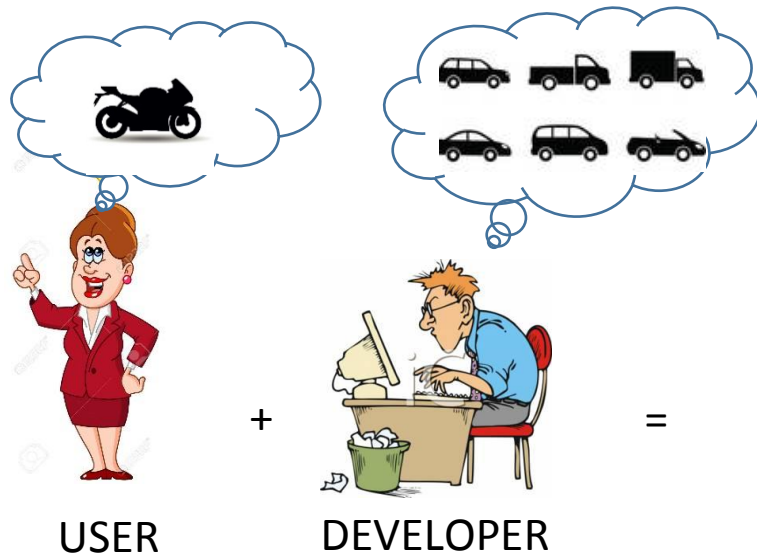




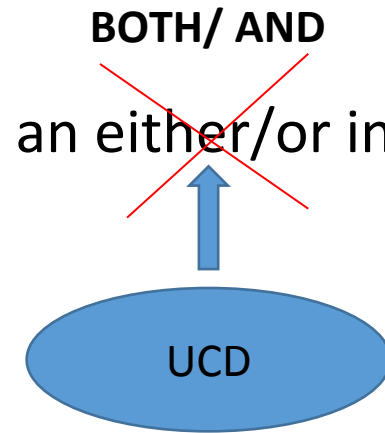
# What isn't UCD?

- UCD is NOT a waste of time or money.
  - UCD requires reflection & observation – can be time consuming.
  - Code  $\neq$  Progress.

New coding techniques, spending time with users – exist as an ~~either/or~~ in software development



= Time and money wasted on developing different frameworks that do not provide the user's desired value.

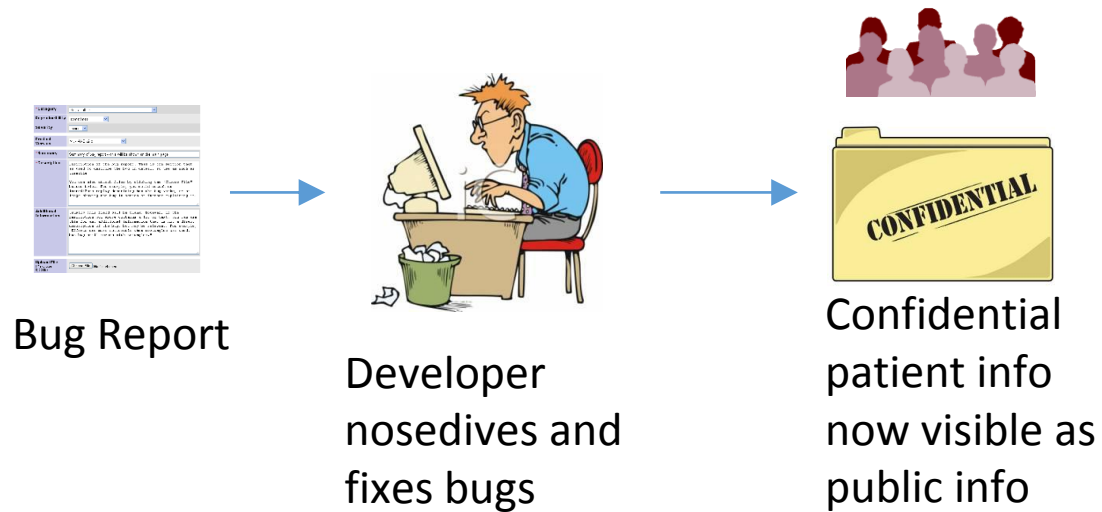


Therefore, UCD can help save time and money!

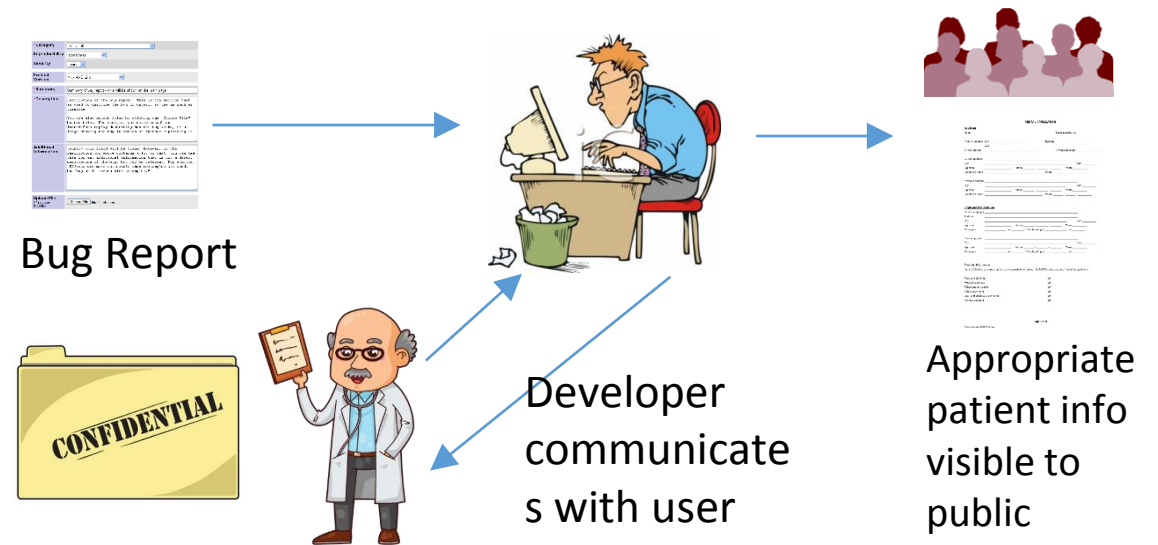
# What isn't UCD?

- UCD is NOT a bug report.
  - User Feedback isn't simply a task list of items to be fixed.
  - Always talk to the users and find out the cause for the bug.
  - Do not simply dive into code and fix the bug.
- Example: Medical Record application

## WITHOUT UCD



## WITH UCD



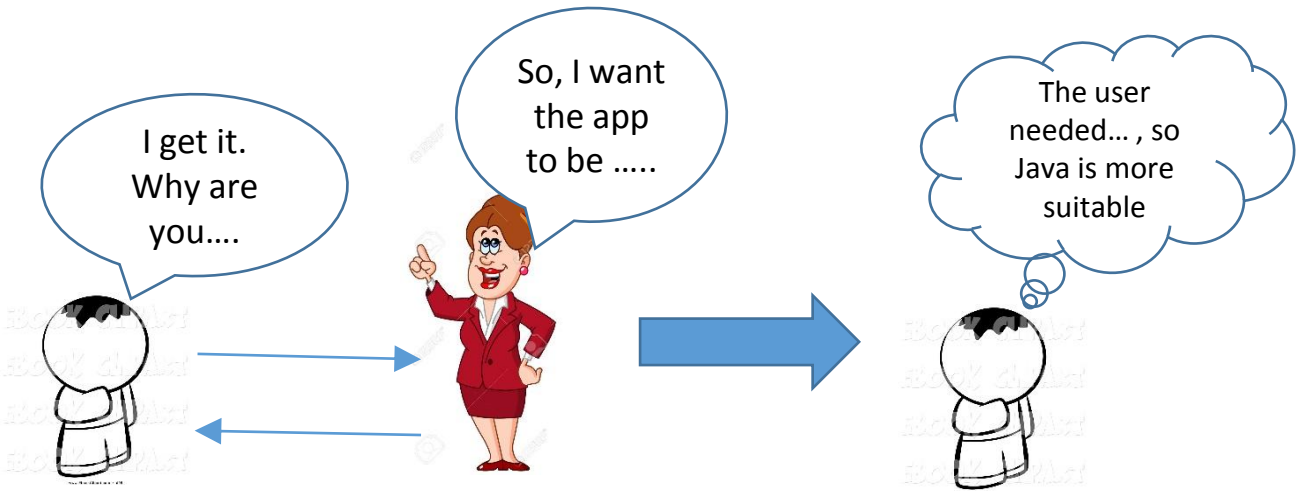
# What isn't UCD?

- UCD is NOT a distraction.
  - Move from user requirements to technical solution – do not fit requirements to technology.
  - Usability of software is not a distraction from the “real” issue of implementation.
  - Wait for user requirements before contemplating technology solutions.
  - Usability + UCD + UX = complete and focused approach to app development.
  - UCD – ask “why”.

WITHOUT UCD



WITH UCD



# So, What is UCD?

- We know what UCD is not.
- UCD – human centered design process.
- Design and evaluate – at every step of the design process.

UCD is an iterative software design process that *focuses* on usability goals, and user characteristics, environments and tasks.

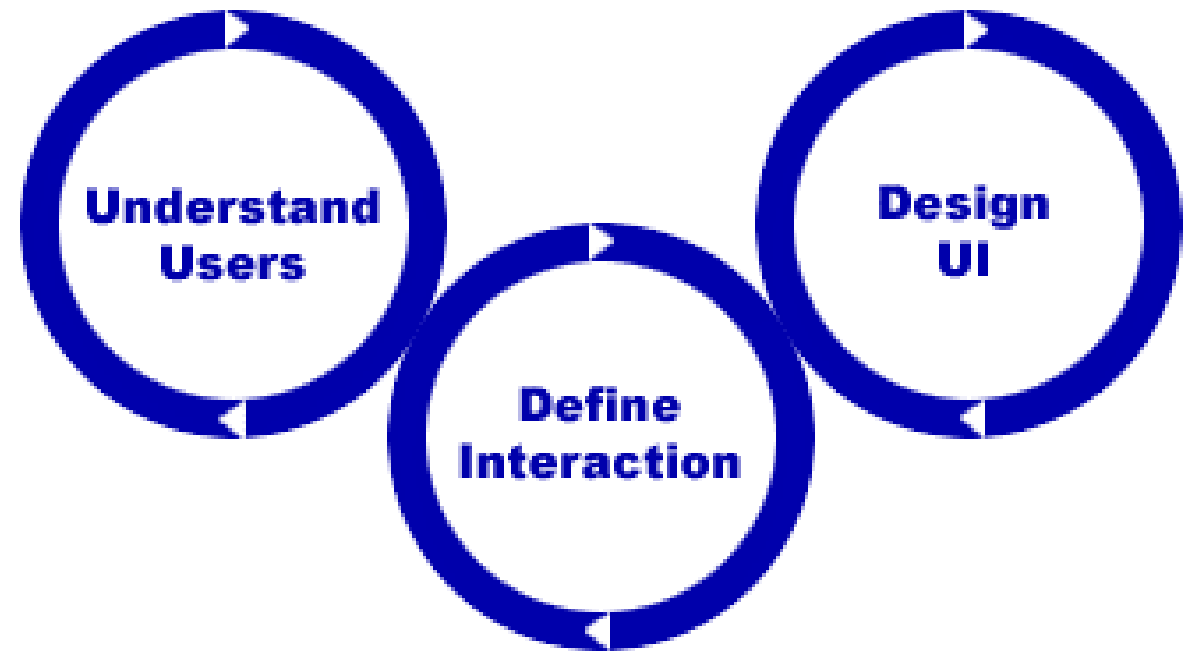





# UCD Principles

- Early focus on user and their tasks
- Evaluation & Measurement of Product Usage
  - Measure reality
  - What users say they do  $\neq$  what users actually do.
- Iterated Design
  - Example: Amazon.com

User-Centered Design boils down to seeking meaningful design insights over random acts of design.



# Amazon

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Shop by Department

Search

All

Go

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MP3s, Cloud Player

20 million songs, play anywhere

Amazon Cloud Drive

5 GB of free storage

Kindle Books, Kindle E-readers

Kindle Fire Tablets

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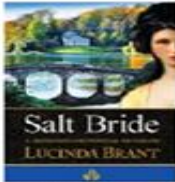
Cell Phones & Accessories : Smart Watches & Accessories

Updated hourly

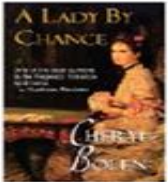
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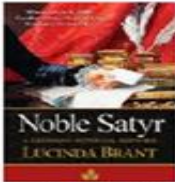
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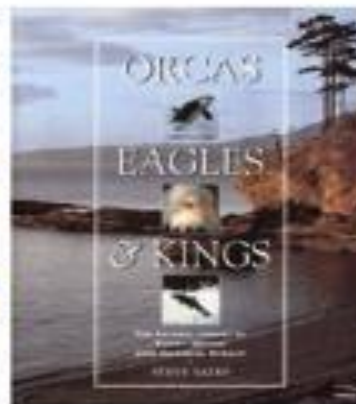
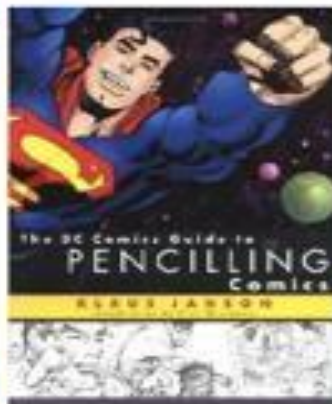
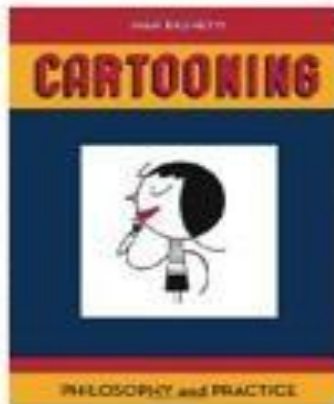
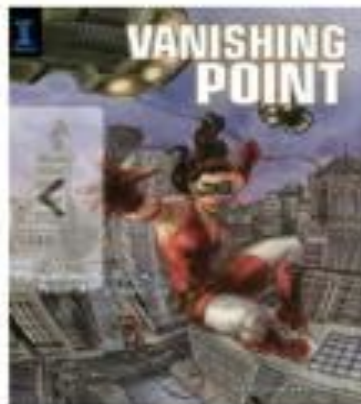
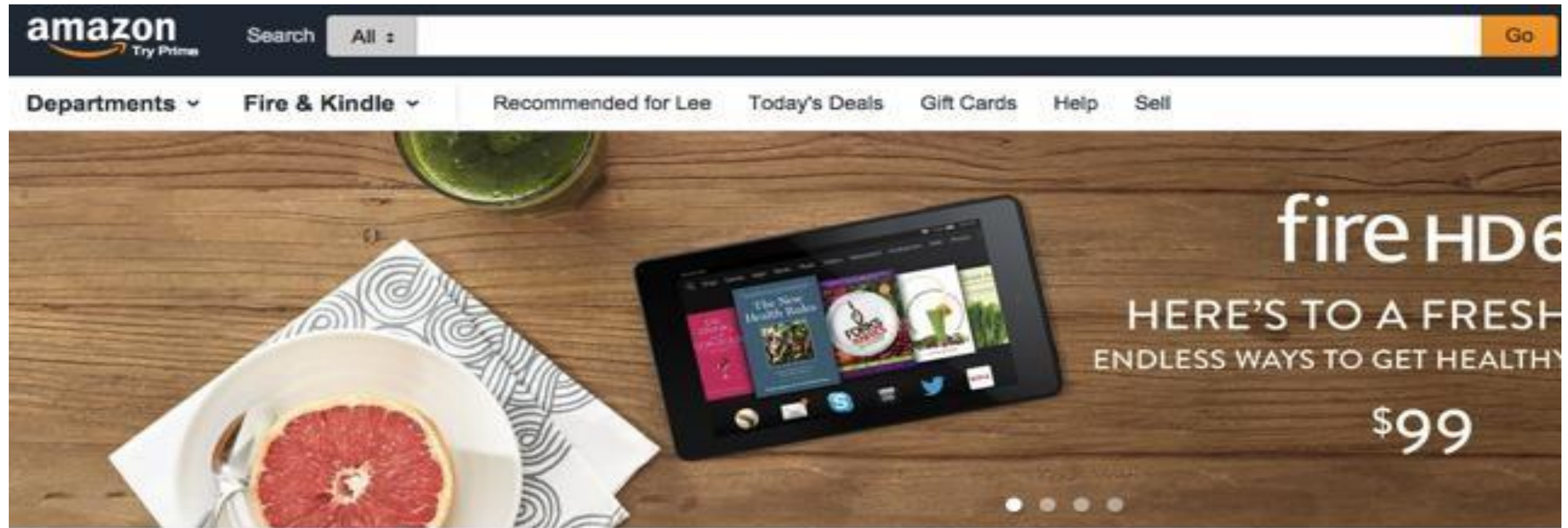
> View or edit your browsing history

Top Watch Gifts



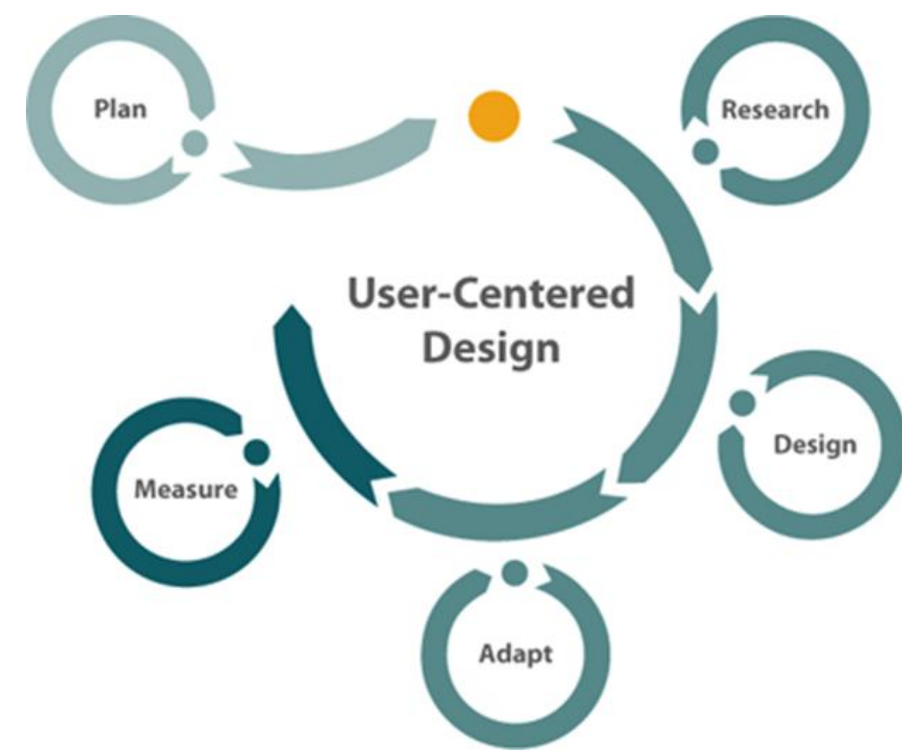


# Amazon in 2015



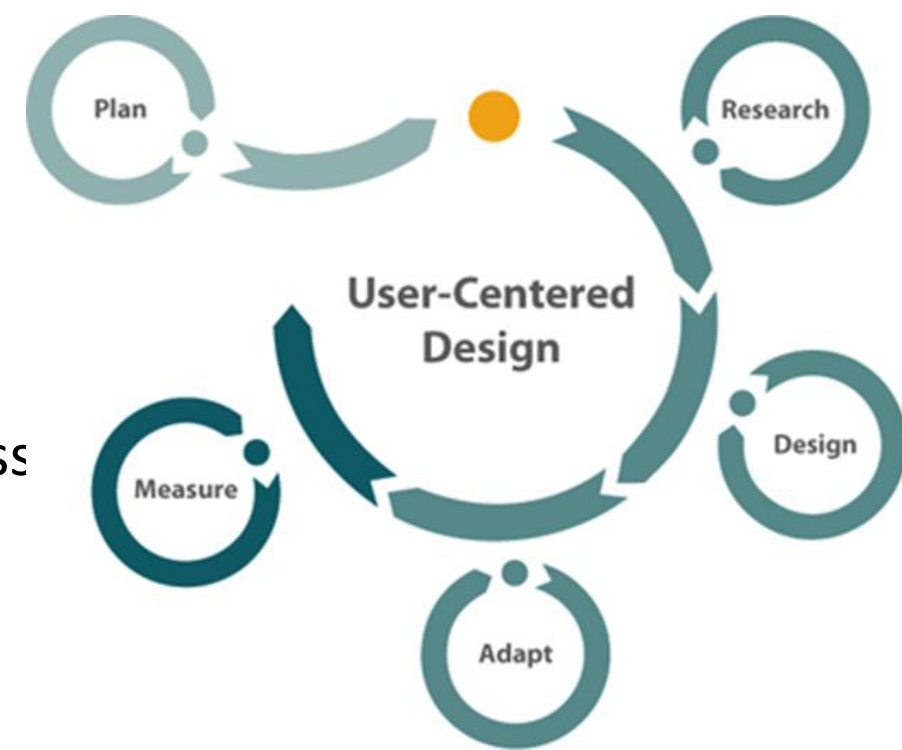
# UCD Process

- Four project phases
  - Planning
    - How much do I do?
    - UCD activities – tailored to meet the needs of users.
    - Engage users in cost benefit analysis.
  - Research Requirements
    - What do I do?
    - Identify user issues that contribute to success.
    - Identify business constraints.
    - Identify the users and their tasks.



# UCD Process

- Design
  - Make it happen.
  - Develop simple prototypes for users to check progress
  - Evaluate design iterations from user's perspective.
- Test and Evaluate
  - Check that designs are on course.
  - User feedback – most valuable.
  - Begin early, continue through development.





# Users

- Primary, secondary, and tertiary – Good UCD takes care of all their needs.

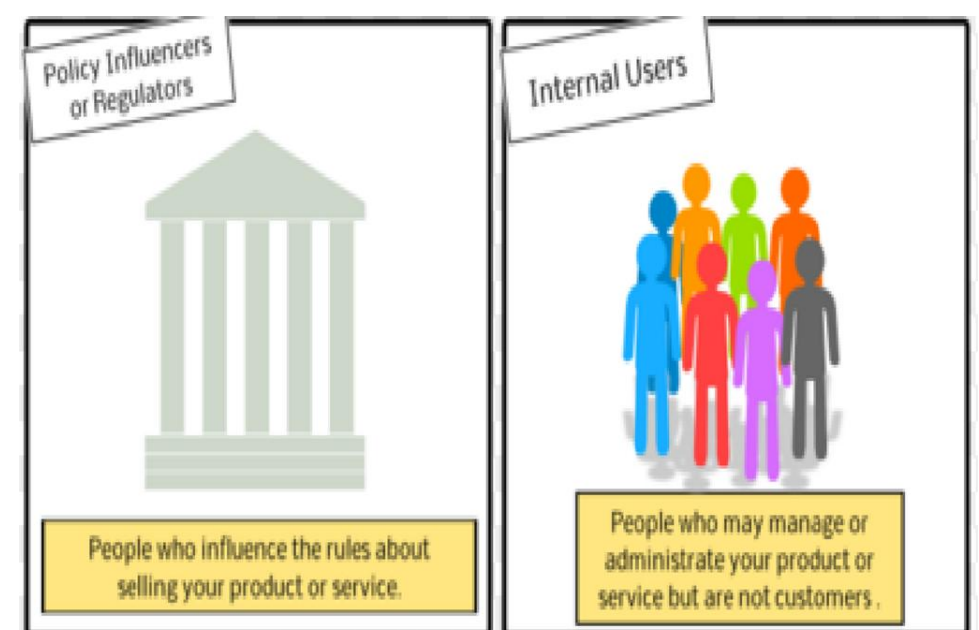
## PRIMARY USERS



## SECONDARY USERS



## TERTIARY USERS

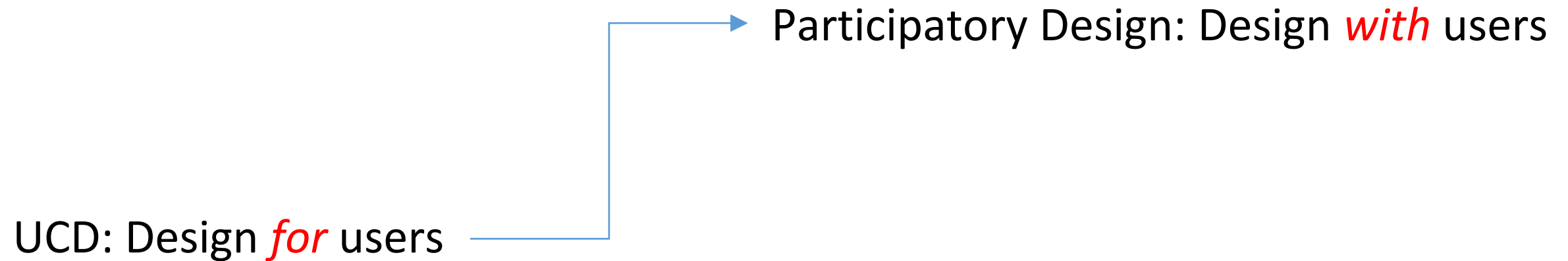


# Usability Testing

- USC is not usability – but, usability plays a central role.
- Usability Testing – improves products usability
  - Involves real users
  - Real tasks
  - Observes the actions of users
  - Analyzes this data
- Three popular techniques:
  - Think aloud
  - Videotaping
  - Interviews/ user experience questionnaire

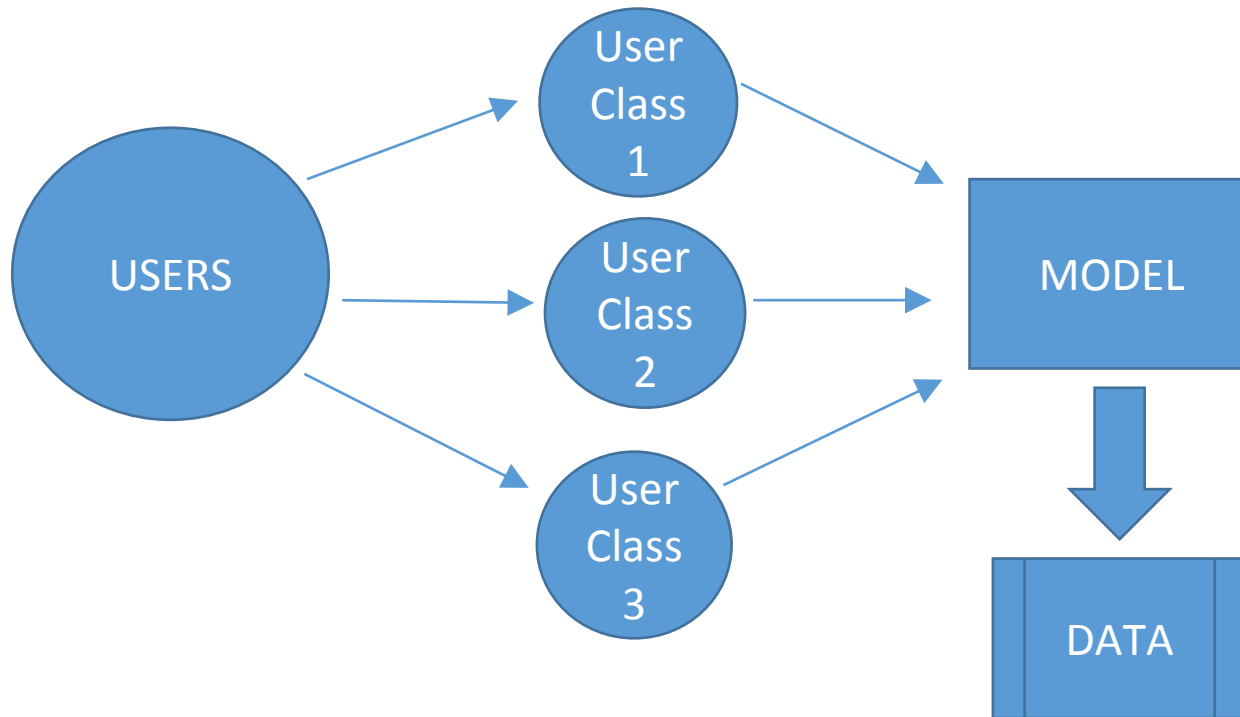
# Participatory Design

- UCD widely accepted – especially in Scandinavia.
- Make users **co-designers**.
- Example: Children are co-designers for a children's app.



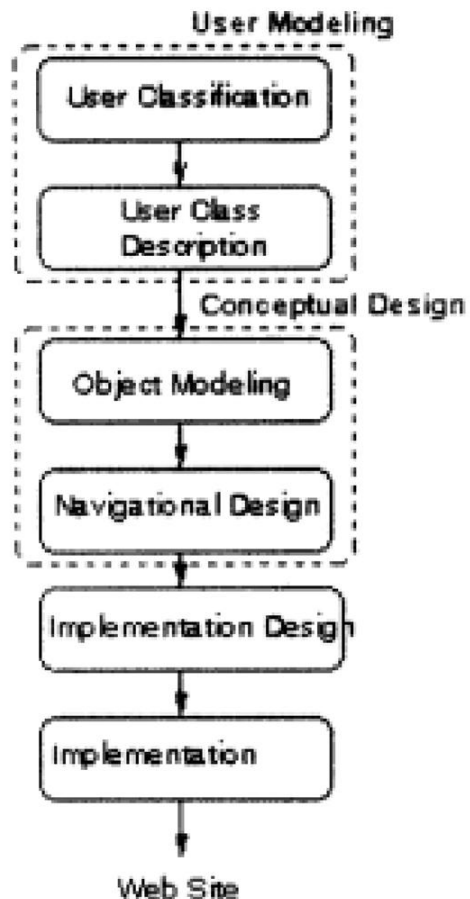
# UCD for Websites (WSDM)

- User-Centered vs Data Driven
  - Data driven – available data is the starting point
  - User Centered – user (the number/ type of visitors) is the starting point



# UCD for Websites (WSDM)

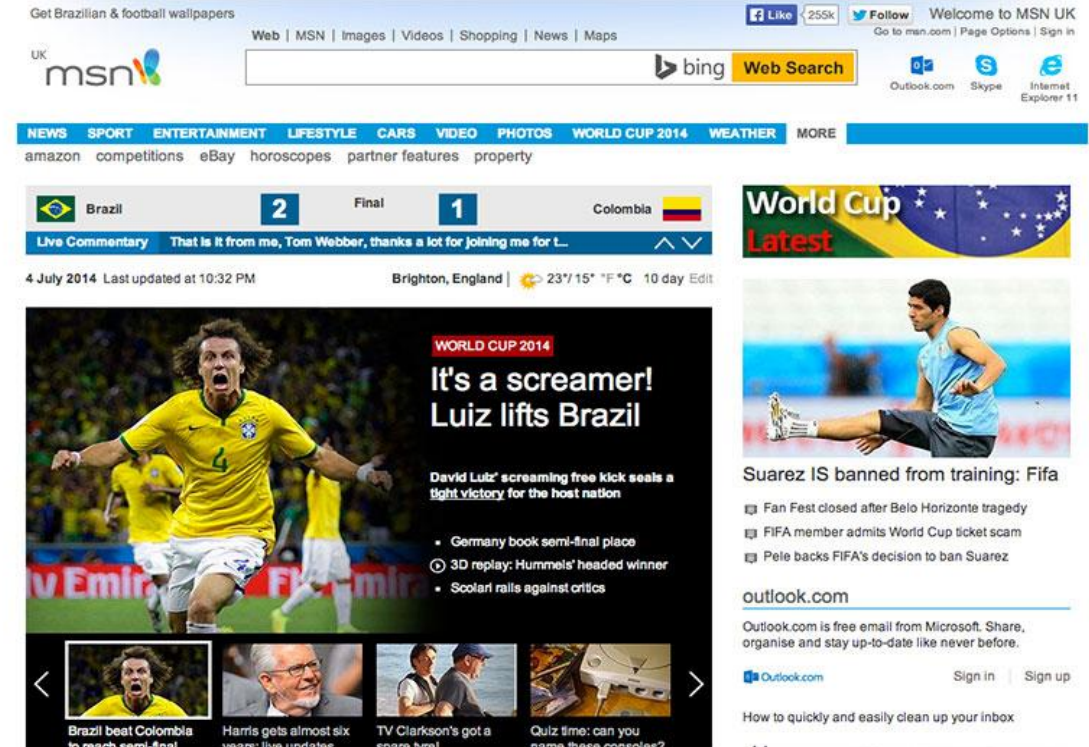
- Web Site Design Method (WSDM) is a result of this.





# UCD for Websites (WSDM)

- Concentrate on visibility
  - Visibility tells users what can/cannot be done.
  - Assists users predict their action's effects.
- User's memory load should be kept at a minimum
  - Never force user's to remember what elements mean from one page to another.
  - Site elements must be consistent across the website.



# UCD for Websites (WSDM)

- Instant feedback
  - Feedback makes a website user-centered.
  - Tells the user that actions were registered.
- Prioritize accessibility
  - Users want quick access to information.
  - This requires organization of web content.
  - Use of site map.



OS X Yosemite  
Coming this fall.



Apple.com Site Map

## Apple Info ⓘ

### News and Events

Hot News  
RSS Feeds  
Apple Events  
Seminars and Events  
User Groups

### About Apple

Contact Us  
Support and Service  
Product Feedback  
Website Feedback  
Public Relations  
Investors  
Working at Apple  
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Recycling  
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### Where to Buy

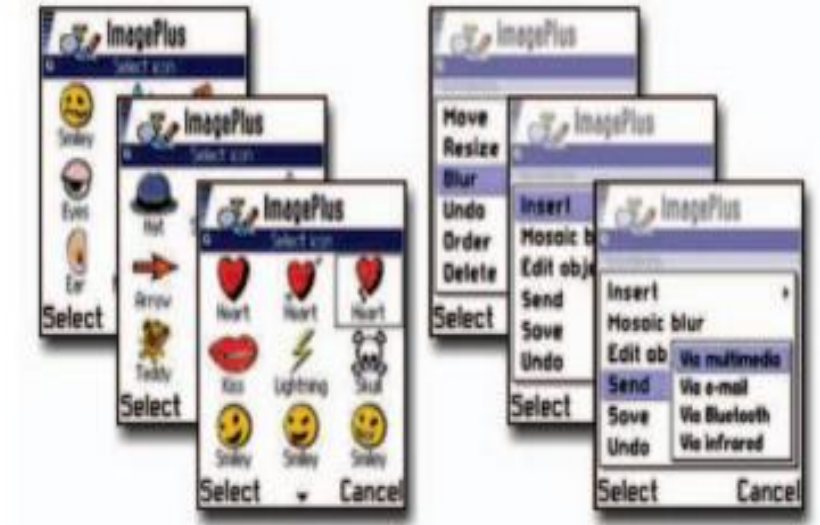
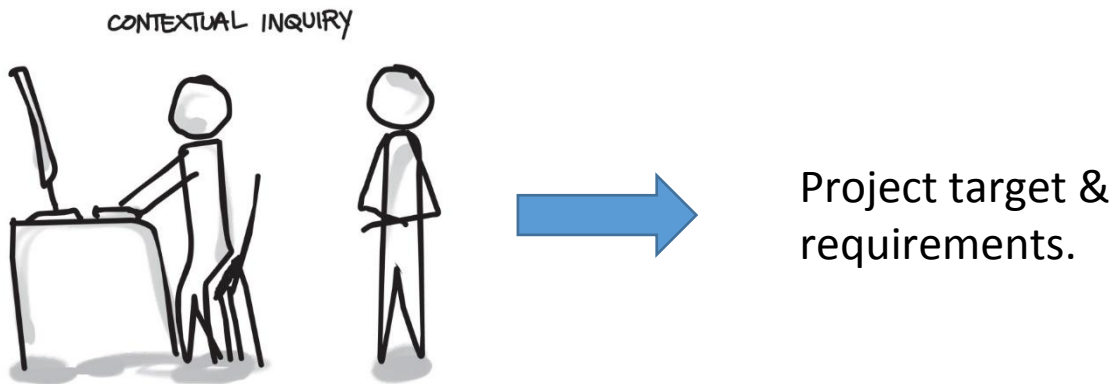
Where can I buy Apple products?  
Apple Online Store  
Apple Store for Business  
Apple Store for Education  
Apple Online Store Country Selector  
Apple Retail  
Find a Reseller  
Apple Financial Services  
Apple Rebates

# UCD in Mobile App Development



# UCD in Mobile App Development

- ImagePlus – integrated image editor on the phone.
  - One of the first UCD projects of Digia.



- Good UCD practices help to ensure the product works.
- Don't add features only because it is easy and cheap to implement
- Provide users with real usage context

# UCD in Mobile App Development

- Fantasy's Healthcare App - Emphasis on user requirements.





# Social Media and UCD

- Why did Facebook beat Orkut? A lot of it has to do with usability.



The main reason's for users liking Facebook from what I found were:

1. Simple and professional user interface
2. Explanation for being added as a friend
3. Unique groups or communities
4. Security of user's profile and information
5. Many other fun applications

The reason's why users **don't** like Orkut were as follows:

1. Amateurish interface (as seen prior to the new one I suppose)
2. Open scraps and profiles owing to less security
3. No provision for providing reasons to "Add as friend"
4. Repetitive groups or communities

Customers expect more. And if you don't give it to them they're very likely to let you know about it, or worse, let all their friends know about it on a public platform. And we all know what happens when that occurs... you lose money. But when you get it right, your audience is simply delighted. Your communication effortlessly takes away concerns, makes life easier, and depending on the topic could even save a few lives. In this case, I am talking about how much value your customer gets from your product. Your product has to be relevant and fulfill a real need or purpose, otherwise it will just be a fad or a distraction (or an utter flop). In the case of Facebook, Mark Zuckerberg figured out that the full value of the social network is not simply to provide the platform to be social, but to have virtually everyone using it and deriving some value from it. So his focus appeared to be on delivering something valuable to its users, which therefore created business value for advertisers to access a huge global audience on one platform. **(remove this text from slide – read this and speak about it)**

# Google+ - User Centered Design and Content

- UCD has been in front of you all this time!



“Hangout” and have a video chat.



Bring the whole team into a single chat via the “Huddle” feature.



Easily move people into “Circles”.

Google paid attention to their users and have rolled out a product that has thus far delighted their users.

# Conclusions

- UCD – method and philosophy of designing for users
- Involves users in the design of computerized systems.
- Users participate can vary
  - Relatively light involvement
    - Consulted about their needs, observe and participate in usability testing.
  - Intensive user participation
    - Throughout the design process as partners in the design.
- Methods to support UCD
  - usability testing
  - participatory design.
- Evaluate – ask users for their feedback early in design.
- Involving users in design has been shown to lead to developing more usable satisfying designs.

# Conclusions

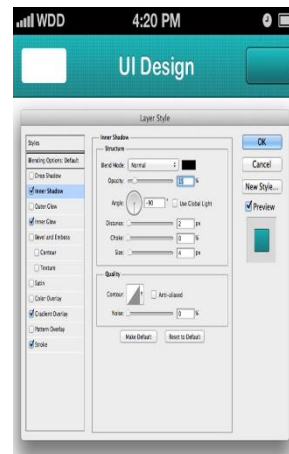
- Its okay if the user cannot use a design the first time. But if the user needs to re-learn it, then there's something wrong.
- The design must communicate with the user.
- Place the user at the center of design.



+



Long, cumbersome, unintelligent manuals are not user-centered



+



Product Design should be learnable with minimum effort, with just a pamphlet as a manual.

# References

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**Questions**

THANK YOU!