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# Graphical User Interface

## Chapter One – Part 2 Human Computer Interaction & Graphical User Interface

Editor

Dr Taha Hussein Rassem  
Faculty of Computer Systems and Software  
Engineering  
[tahahussein@ump.edu.my](mailto:tahahussein@ump.edu.my)



# Chapter Description

- **Aims**
  - To define the GUI and HCI concepts
  - To explore the Background of GUI
  - To explore and learn the Philosophy of GUI
- **Expected Outcomes**
  - Understand the difference between the GUI and HCI.
  - Able to understand the background and philosophy of GUI



- **References**

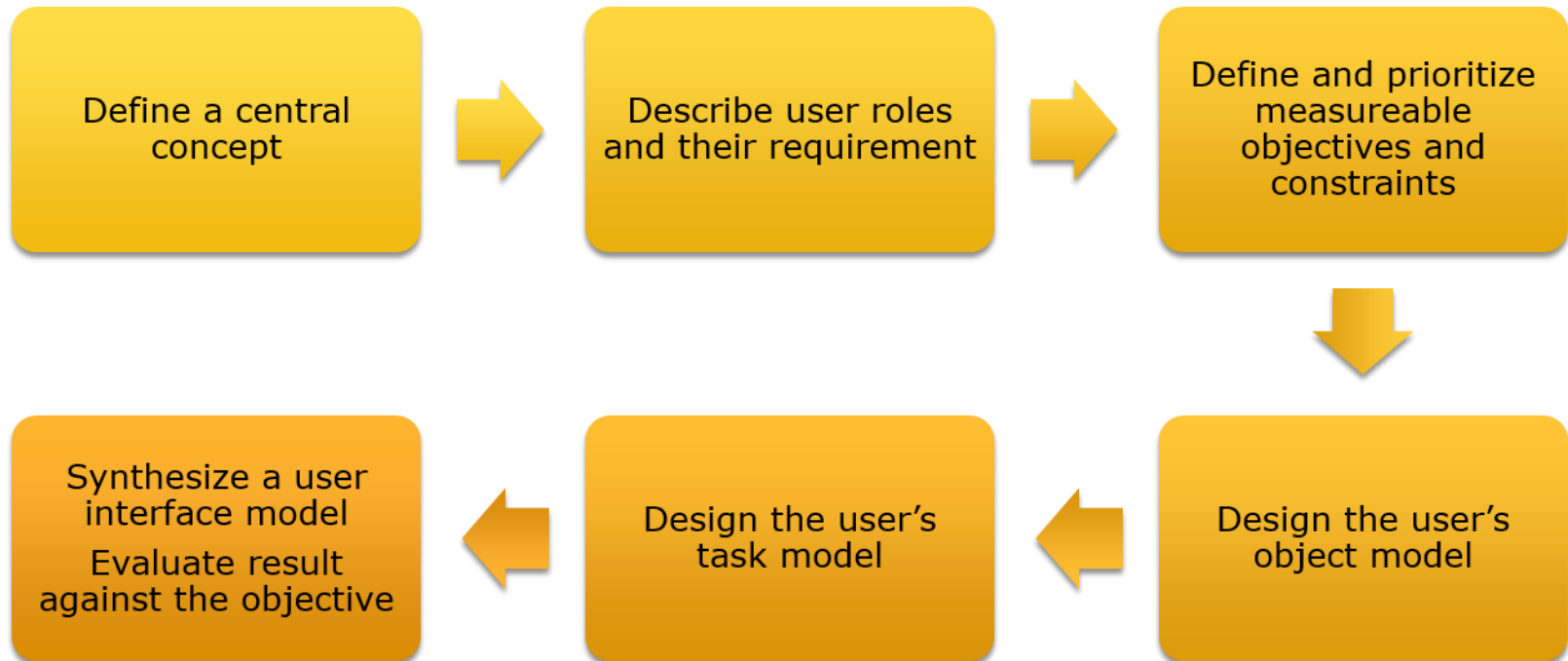
1. Wilbert O. Galitz, The Essential Guide to User Interface Design: An Introduction to GUI Design Principles and Techniques, John Wiley & Sons Inc, 2007.
2. Jenifer Tidwell, Designing Interfaces, O'Reilly, 2011
3. Jeff Johnson, Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Rules , Morgan Kaufman Publisher, 2010



# User Interface Concepts

- User interface = a requirement for end user's domain.
- Conceptual design is the explicit construction of the ideas or concepts that a user needs to learn about what a product is, what it can do, and how it is intended to be used.
- It may also address what a product is *not*, what it *can't* do, and how it is *not* intended to be used.
- Conceptual design is done from the user's point of view.
- **ALWAYS THINK FROM THE USER SIDE!!!**

# Conceptual design process



# Conceptual design...

- There are two ways of creating conceptual designs: implicitly and explicitly.
- **Implicit conceptual design** happens when everyone believes there is an understanding and agreement on the concepts underlying a design but no one writes them down or discusses them openly.
- **Explicit conceptual design** involves adopting the user's point of view and defining in a systematic way the concepts users will need to learn to use the product effectively.

Cited from: <http://www.interfaceconcepts.com/concept.htm>

# Implicit conceptual design

- **Implicit rules:**
  - Malfunction, No one expects to press a "On" button, but the result is "Off".



Source :[http://taptapta](http://taptapta.com/blog/10-useful-iphone-tips-and-tricks/) <http://taptaptap.com/blog/10-useful-iphone-tips-and-tricks/>



# Explicit conceptual design

- ❖ Logic way : iPhone outlook design: Elegant, Easy of use, Networking, Communication, Small size
- ❖ Good GUI...
- ❖ Group elements together
- ❖ Think of primary and secondary action
- ❖ HIERARCHY!
- ❖ Use familiar symbols (think of desktop metaphor)
- ❖ KEEP CONSISTENT!
- ❖ Scalability and flexibility
- ❖ The user must feel comfortable: you need a clear sense of 'home', always allow undo, always make an easy way out, progress bars

# User Interface Generation

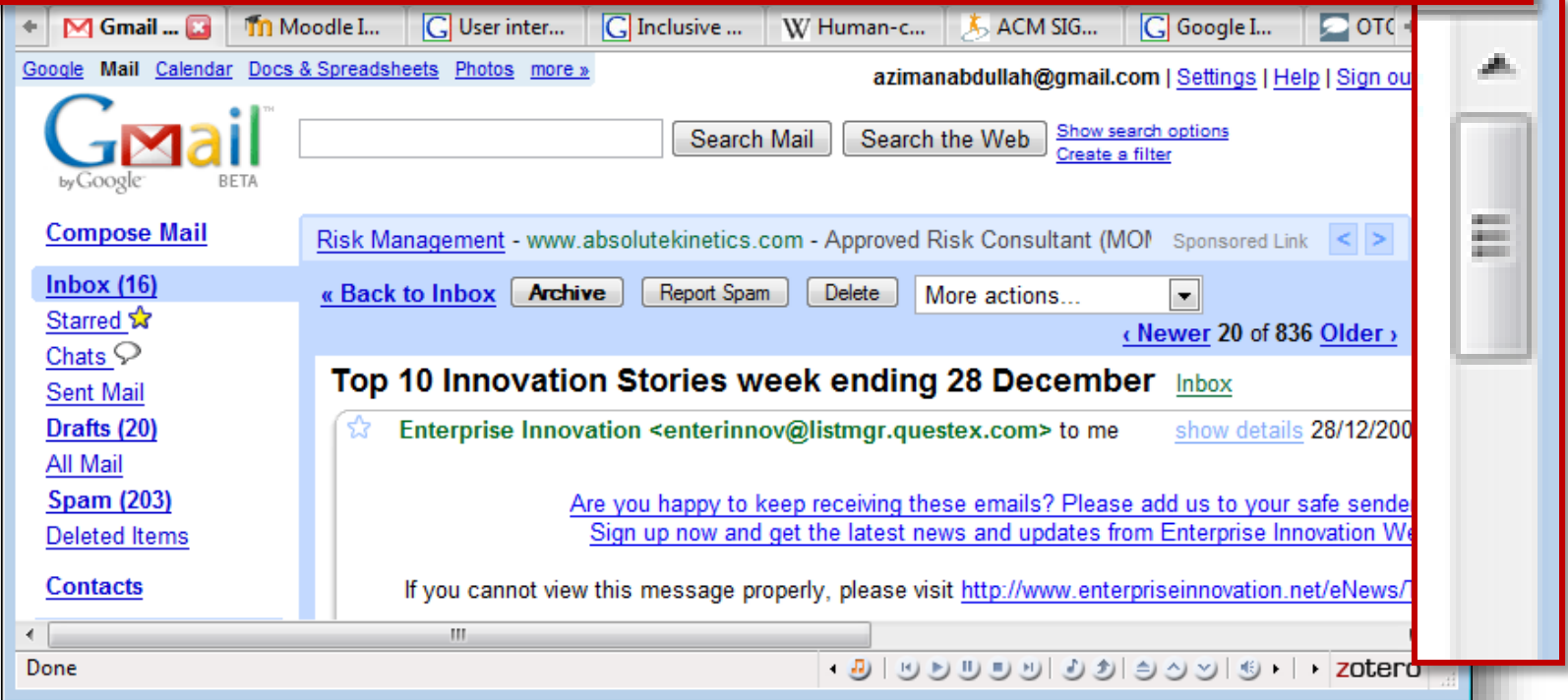
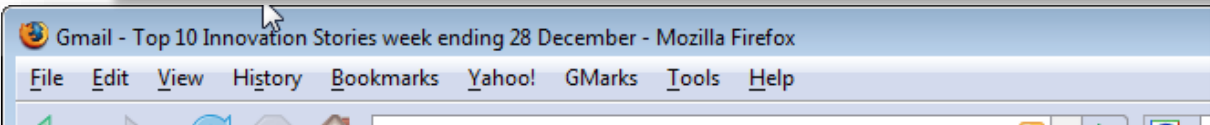
- Find out more on this issue on Internet.
- Share your findings with your classmates





# Background of GUI

- Graphical User Interface (GUI) pronounced “GOO-EE”.
- Different application with consistent set of intuitive user-interface components, GUI allows user to spend less time trying to remember which keystroke sequences perform what function and spend more time using the program effectively.
- LOOK & FEEL!!



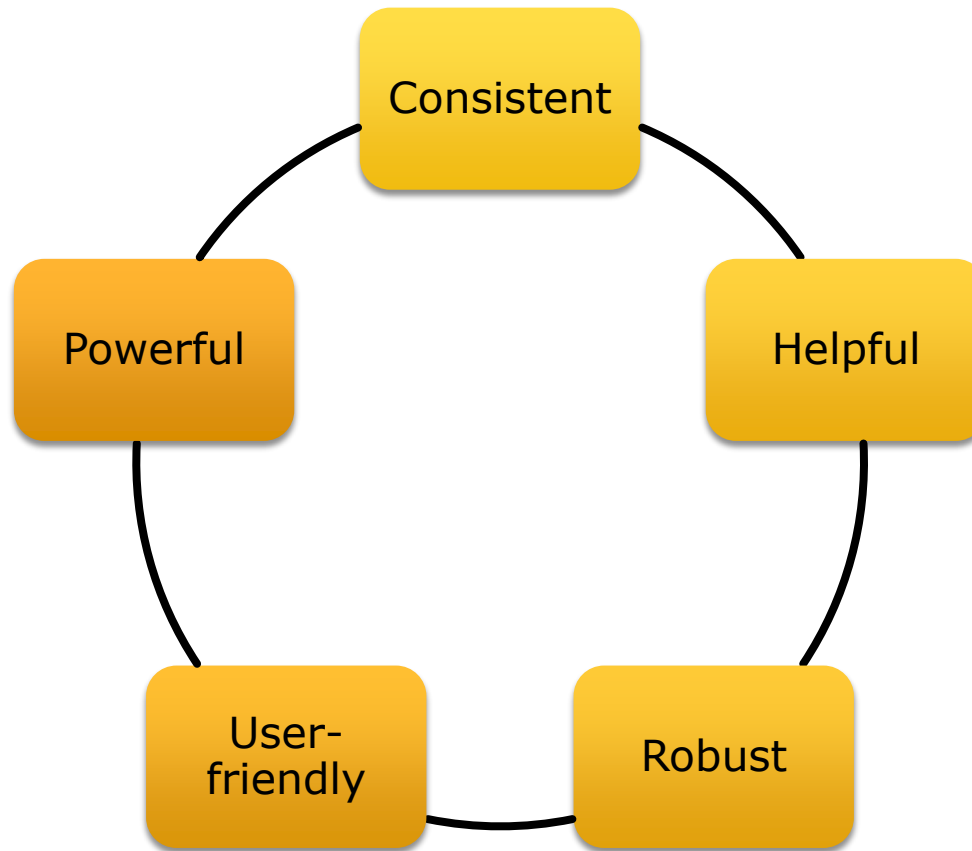
The design parts can be grouped and itemized by functions.

# Philosophy of GUI ???

- ▶ Find out more on this issue on Internet.
- ▶ Share your findings with your classmates



# Philosophy of GUI



# Another GUI Principles



# Further readings:

- [http://en.wikipedia.org/wiki/Human-Computer\\_Interaction](http://en.wikipedia.org/wiki/Human-Computer_Interaction)
- <http://sigchi.org/cdg/cdg2.html>
- <http://www.interfaceconcepts.com/concept.htm>
- [http://www.deitel.com/books/vcppneth1/vcpph1\\_12.pdf](http://www.deitel.com/books/vcppneth1/vcpph1_12.pdf)
- <http://www.isii.com/>
- [http://en.wikibooks.org/wiki/GUI\\_Design\\_Principles](http://en.wikibooks.org/wiki/GUI_Design_Principles)