# **Specific HCI Guidelines**

### Muryan Awaludin

- > SDN 09 Petarukan Pemalang (1997)
- SMP PGRI 5 Petarukan Pemalang (2000)
- > SMK ISLAM Pemalang (2003)
- > S.Kom di STIKOM CKI Jakarta (2010)
- M.Kom di STMIK ERESHA Jakarta (2014)

#### **Contact Us**

Phone : 08562616116

Email : muryan awaludin@yahoo.co.id

Blog : <u>www.ilmudesaingrafis.blogspot.com</u>

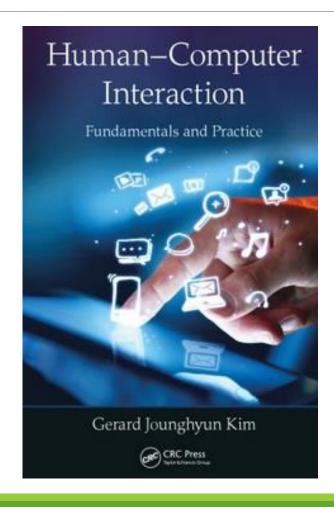
: www.muryanawaludin.blogspot.com

Twitter : @muryan\_awaludin

FB: muryan.awaludin

Ym : muryan\_awaludin

### **Textbook**



#### Course Outline

#### 1. Guideline Categories

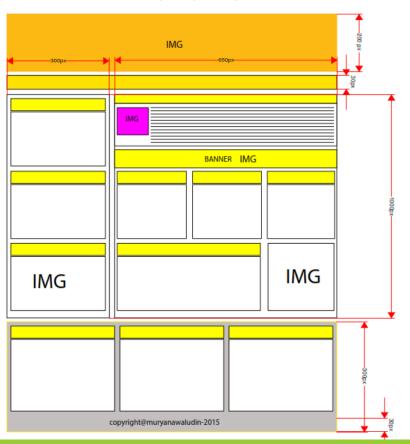
#### 2. Examples of HCI Guidelines

- 2.1 Visual Display Layout (General HCI Design)
- > 2.2 Information Structuring and Navigation (General HCI Design)
- 2.3 Taking User Input (General HCI Design)
- 2.4 Users with Disability (User Type)
- 2.5 Mobile Device (Platform Type)

# 1. Guideline Categories

Criteria	Main Categories	Examples
User Type	Age/generation, Disability/accessibility, Gender, Consumer group Occupation, Culture/country	Kids, elders, visually challenged, students, parents, East Asians, athletes, etc.
Platform/system setup	Mobile/handheld, Desktop Large display/virtual reality, Public, installation, Operating system/network	Smartphone, padlike device, desktop, embedded OS, cloud based, navigation systems, personal game players, MP3 players, e-book, etc.
Vendors/organizations	Private, Public, Design style/identity	NASA, University, Android™, iOS, Windows® XP, etc.
Task/operational context	Location/place, Time, Noise/lighting Bodily constraints	Office, outdoor, road/street, home, automobile, subway, classroom, eyes free, hands free, handedness, etc.
Applications	Game Media/information, Electronic commerce, Design/editing, Social network service	
General HCI design	Display layout Information, structure/navigation input, Information/output visualization Design, process and practices User, experienceGeneral aesthetics	

#### 2.1 Visual Display Layout (General HCI Design)



GUIDELINES	EXPLANATION	
Avoid cluttered displays	Create pages that are not considered cluttered by users	
Place important items consistently	Put important, clickable items in the same locations and closer to the top of the page, where their location can be better estimated	
Place important items at top center	Put the most important items at the top center of the web page to facilitate users finding the information	
Structure for easy comparison	Structure pages so that items can be easily compared when users must analyze those items to discern similarities, differences, trends, and relationships	
See the book page 15		

#### 2.2 Information Structuring and Navigation (General HCI Design)

Here, we introduce a summarized guideline for the design of an easily navigated interface from Leavitt and Shneiderman [3]

Here



www.ilmudesaingrafis.blogspot.com



2.2 Information Structuring and Navigation (General HCI Design)

As a more concrete example, we illustrate two design patterns

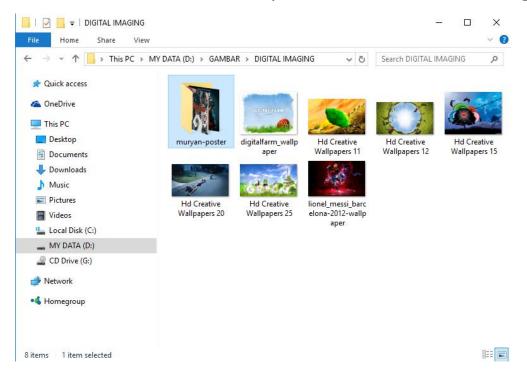
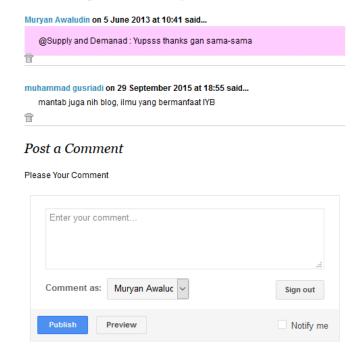
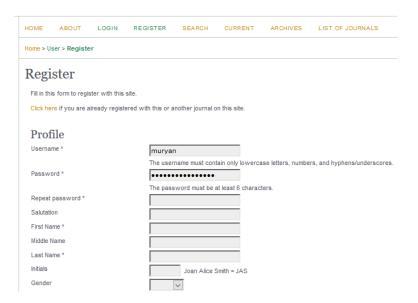


Figure 2.2 The use of a two-panel selector, a design pattern for information structuring and facilitated navigation

#### 2.3 Taking User Input (General HCI Design)



#### **Journal of Intelligent Systems**



http://ilmudesaingrafis.blogspot.com/2011/09/guest-book.html

http://journal.ilmukomputer.org/index.php/jis/user/register

Figure 2.3 Taking User Input

#### 2.3 Taking User Input (General HCI Design)

**Figure 2.4** is a collection of guidelines for use in applying these input methods to facilitate data entry [4].

- Consistency of data-entry transactions
- 2. Minimal input actions by user
- 3. Minimal memory load on users
- 4. Compatibility of data entry with data display
- 5. Clear and effective labeling of buttons and data-entry fields
- 6. Match and place the sequence of data-entry and selection fields in a natural scanning and hand-movement direction
- 7. Do not place semantically opposing entry/selection options close together
- 8. Design of form and dialog boxes

2.4 Users with Disability (User Type)



**Figure 2.4** Adjustment feature for visually challenged users. The colors of the background and foreground text can be changed.

2.5 Mobile Device (Platform Type)



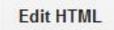
**Figure 2.5** Comparison of two mobile game interfaces (the initial entry screen): (a) information and object density is needlessly high and distracting (left), (b) simple and minimal layout, and object sizes fitted to ergonomic usage (right). (From http://www.withhive.com.)

2.5 Mobile Device (Platform Type)

#### Langsung di Blog







#### Seluler





### Reference

- 1. Wikipedia. 2013. ISO 9241. <a href="http://en.wikipedia.org/wiki/ISO">http://en.wikipedia.org/wiki/ISO</a> 9241.
- 2. Tidwell, Jennifer. 2010. Designing interfaces. 2nd ed
- 3. Leavitt, Michael O., and Ben Shneiderman. 2006. Research-based web design and usability guidelines. Washington, DC: US Department of Health and Human Services.
- 4. Smith, Sidney L., and Jane N. Mosier. 1986. Guidelines for designing user interface software. Bedford, MA: Mitre Corporation.
- 5. Caldwell, Ben, Michael Cooper, Loretta G. Reid, and Gregg Vanderheiden, eds. 2010.
- 6. Nokia. 2012. Guidelines for mobile interface design.
- 7. Android. 2013. Multi-pane layouts. http://developer.android.com/ design/patterns/multi-pane-layouts.html.
- 8. Blattner, Meera M., Denise A. Sumikawa, and Robert M. Greenberg. 1989. Earcons and icons: Their structure and common design principles. Human–Computer Interaction 4 (1): 11–44.
- 9. Green, Paul, William Levison, Gretchen Paelke, and Colleen Serafin. 1993. Suggested human factors design guidelines for driver information systems. Technical Report UMTRI-93-21. Ann Arbor: University of Michigan, Transportation Research Institute.
- 10. Kalsbeek, Maarten. 2012. Interface and interaction design patterns for e-commerce checkouts. Master's thesis, University of Twente. http://essay.utwente.nl/62507/.

# Thank You