

The slide features a large orange header section with the title "USER INTERFACE DESIGN & IMPLEMENTATION". Below the title, there is a list of "INSTRUCTORS" which includes "Hyowon Lee" and "Prof Larry Young". To the right of this information is a detailed weekly course schedule for 14 weeks.

	Monday (11:30am – 1pm)	Tuesday (4:30 – 6pm)	Thursday (11am – 1pm)
Week 1 (23 Jan)	Introduction/ background	User classification	Project overview, team up
Week 2 (30 Jan)	CNY holiday	UI design concepts	Project - scoping
Week 3 (6 Feb)	UI design concepts	UI design concepts	Project - scoping
Week 4 (13 Feb)	UI design concepts	Understanding Users (Industry)	Project - scoping
Week 5 (20 Feb)	UI concepts / Impact	Evaluation	Project
Week 6 (27 Feb)	Evaluation	Evaluation	Mid-term report/presentation
Week 7 (6 Mar)	Recess Week		
Week 8 (13 Mar)	Project	Project	Project
Week 9 (20 Mar)	Project	Project	Project
Week 10 (27 Mar)	Prof Young Special Lec 1	Prof Young Special Lec 2	Project
Week 11 (3 Apr)	Prof Young Special Lec 3	Prof Young Special Lec 4	Project
Week 12 (10 Apr)	Project	Project	Project
Week 13 (17 Apr)	Project	Project	End-term report/presentation
Week 14	Final Exam		

PROJECT SCOPING

- Identify 1 UI concept (principle or any other strategy learned so far)
- Identify 1 application area (app, service, etc.) that can apply the concept
- Formulate a title of the project (see 2-page guideline on eDimension)
- Find 3-5 example UIs and argue how your approach can greatly enhance the usability
- **Sketch a series of UIs that incorporate the concept**

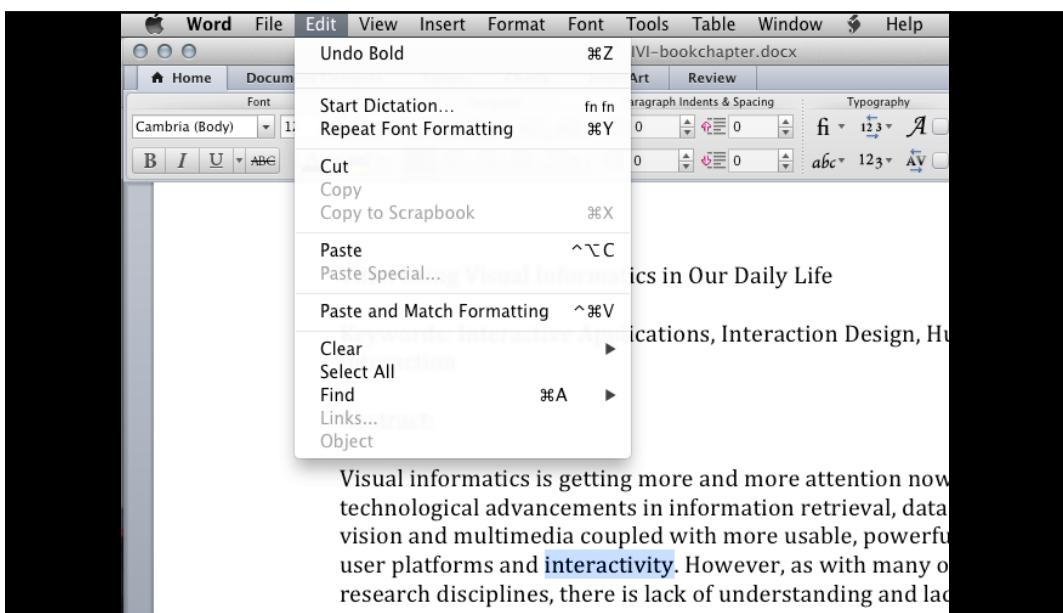


Guideline 8: Prevent user-driven errors...

- ... before designing error messages
 - Block any possibility of user-driven error
 - Affordance
 - Direct manipulation
- Immediate and continuous feedback
 • Incremental and reversible user action
 • **No user-driven error**

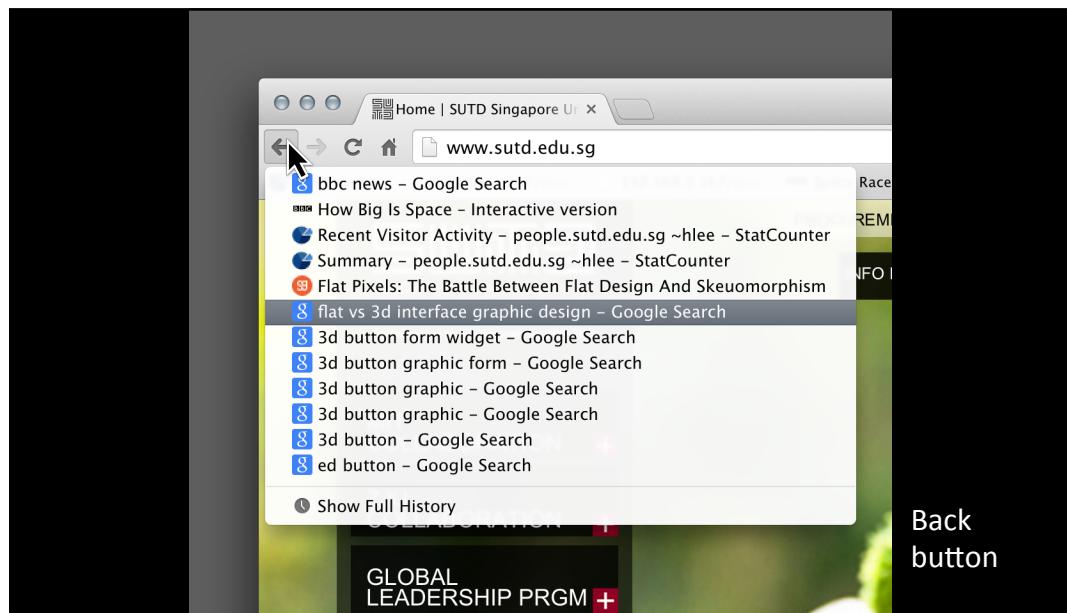
→ Do your best to leave no room for user error

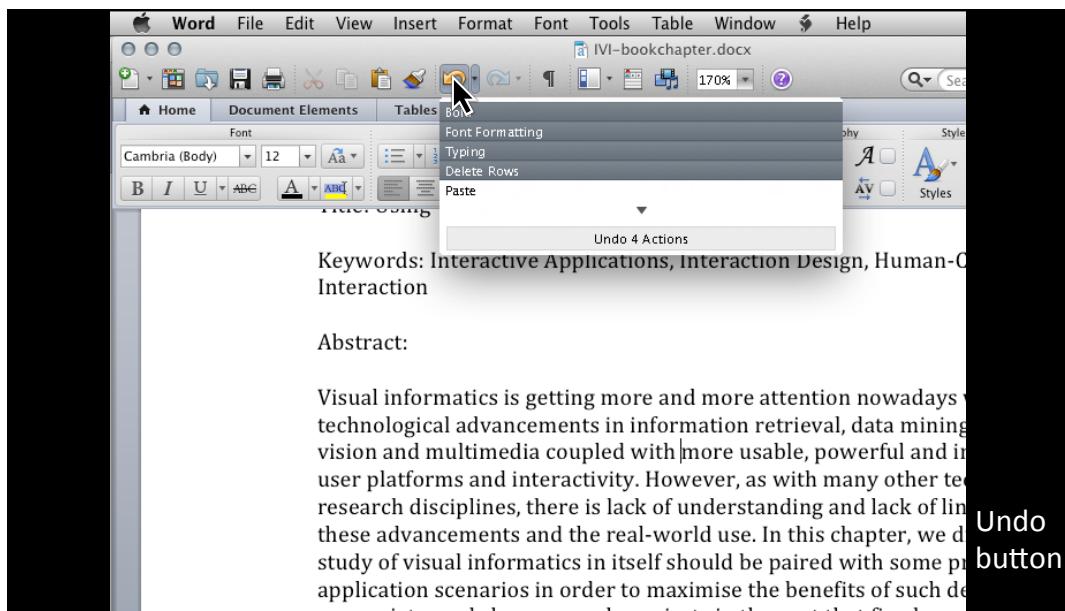
SUMI



Guideline 9: Provide easy reversal of action

- Relieves user's anxiety
- Encourages to explore new features, to seek alternatives

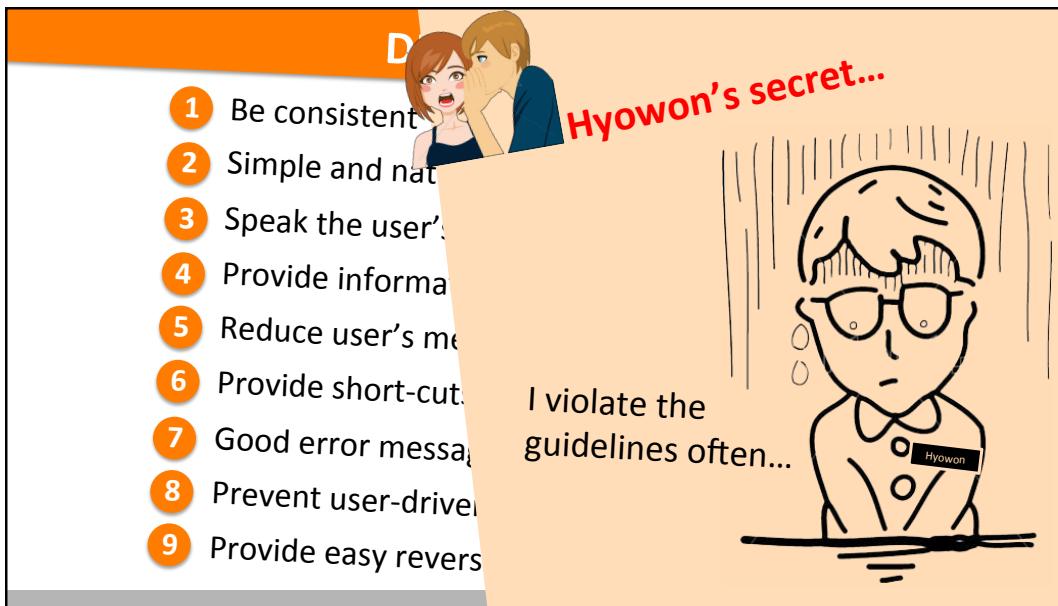




DESIGN GUIDELINE SUMMARY

- 1** Be consistent
- 2** Simple and natural dialogue
- 3** Speak the user's language
- 4** Provide informative feedback
- 5** Reduce user's memory load
- 6** Provide short-cuts for frequent use
- 7** ~~Good error messages~~
- 8** Prevent user-driven errors
- 9** Provide easy reversal of actions
- 10** ~~Help & documentation~~

Maximise info/admin ratio, sharpening, prioritising, grouping, readable fonts, layout, alignment, colour, emphasis



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Direct Manipulation

D

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The whole point is...

... when you design a UI, focus on the users, not on you

By being careful on what user can do well and not do well, you can design a UI that **compensates user's weaknesses** and **extend their capabilities**

ACTIVITY

- GPS navigator
- Pocket calculator
- IDEs
- Financial decision support system
- :

→ How can we design our day-to-day apps to reduce negative cognitive effects over time?

From **SAFETY ALERT FOR OPERATORS (SAFO)**, 4 Jan 2013

“...this SAFO encourages operators/pilots to promote manual flight operations when appropriate...”

... as the flight automation can lead to degradation of the pilot's ability to quickly recover the aircraft from an undesired state...”

SUTRA

Design Principles

- Derived from a mix of theory-based knowledge, experience, and common sense
- Intended to help designers explain and improve the design



Design Principles

Affordance
Consistency
Constraints
Feedback
Mapping
Visibility



Design Principles

- Affordance
- Consistency
- Constraints
- Feedback
- Mapping
- Visibility

Intuitive
Easy to use
User-friendly
:




FLOOR PLAN LIGHT SWITCH
Don't be confused anymore.

Design by Taewon Hwang,
Hyundai Asan, 2011

SUTRA

Design Principles

- Affordance
- Consistency
- Constraints
- Feedback
- Mapping
- Visibility

Making more visible:
 • Functions
 • Current state
 Better access
 Feeling of control
 Less surprise



Faucet Light



Design Principles

- Affordance
- Consistency
- Constraints
- Feedback
- Mapping
- Visibility

Current state
Better access
Feeling of control
Less surprise

SUTRA

CONCLUSION

- Do **not** conform to design guidelines
- Use the design guidelines and principles **as a tool to frame and think about your design**

→ Notice our day-to-day UIs we interact with... think about how you can explain its good/poor usability by these guidelines/ principles, how they could be designed better

End of Slides

SUTRA