

# L: 22/02/2021

**Master in Informatics and Computing Engineering**  
**Database and Web Applications Laboratory**  
**Instance: 2020/21**

---

## Lecture #2 (part 1) :: 17/02/2021

### Goals

By the end of this class, the student should be able to:

- Understand the concept of User-Centered Design in Interaction Design.
- Describe each stage of Interaction Design Process.
- Understand how and when to use Design Patterns.
- Learn best practices in Interaction Design.

### Content

- What is Interaction Design?
- Interaction Design Process
- User Centred Design
- IxD, UX and UI
- Interaction Design Dimensions
- Mental Models
- Interaction Design Principles
- User Interface Elements
- Design Patterns
- What do Interaction Designers Do?
- Wireflows

### Bibliography

- Dix, A., Finlay, J., Abowd, G. D., & Beale, R. (2004). *Human-Computer Interaction*, Third Edition. Pearson.
- Cooper, A., Reimann, R., Cronin, D., & Cooper, A. (2007). *About face 3: The essentials of interaction design*. Indianapolis, In: Wiley Pub.
- Preece, J., Rogers, Y., & Sharp, H. (2015). *Interaction Design: Beyond Human-Computer Interaction*, Fourth edition. John Wiley & Sons, Ltd.
- Kalbach, J. (2007). *Designing Web Navigation*. Sebastopol, CA: O'Reilly Media, Inc.
- Saffer, D. (2010). *Designing for Interaction — Creating Innovative Applications and Devices*. Berkeley, CA: New Riders.
- Morville, P., Rosenfeld, L., Arango, J. (2015). *Information Architecture: For the Web and Beyond*, 4th Edition, O'Reilly Media.

- Moggridge, B., & Atkinson, B. (2007). *Designing interactions*. Cambridge, Massachusetts: MIT Press.
- Tidwell, J. (2005). *Designing Interfaces*, Second Edition, O'Reilly Media.

## Materials

- Andreia Pinto de Sousa, *Introduction to Interaction Design*, [Illustrations presented in class](#), February 2021
- Interaction Design Foundation <https://www.interaction-design.org>, last accessed in February 2021
- Nielsen Norman Group [Wireflows: A UX Deliverable for Workflows and Apps](#), last accessed in February 2021
- Nielsen Norman Group [Usability 101: Introduction to Usability](#), last accessed in February 2021
- Nielsen Norman Group [10 Usability Heuristics for User Interface Design](#), last accessed in February 2021
- Nielsen Norman Group [Severity Ratings for Usability Problems](#), last accessed in February 2021
- Jenifer Tidwell, [Designing Interfaces](#), last accessed in February 2021
- UI Patterns, [UI Patterns](#), last accessed in February 2021
- Martijn van Welie [wellie.com](http://wellie.com), last accessed in February 2021

## Lecture #2 (part 2) :: 24/02/2021

### Goals

By the end of this class, the student should be able to:

- Understand the fundamentals of visual design and the intrinsic complexities of designing interactive systems.
- Understand the impact of visual design on usability and readability.
- Identify common mistakes and pitfalls of visual design, specifically on the web.

### Content

- The importance of visual communication on the Web
- Impact of the visual communication on usability and legibility
- Introduction to elements of visual communication
  - Typography
  - Color
- Introduction to principles of visual communication
  - Proximity
  - Similarity
  - Continuity
  - Closure
  - Visual Flow
  - Contrast
  - Hierarchy

## Bibliography

- Lupton, E., & Phillips, J. C. (2008). *Graphic Design The New Basics* (Second Edi). New York: Princeton Architectural
- Lupton, E. (2014). *Type on screen*. (Ellen Lupton, Ed.). *A Design Handbook*.
- Maria, J. S. (2014). *On Web Typography*. New York: A Book Apart.
- Samara, T. (2007). *Design Elements: A Graphic Style Manual*. Rockport Publishers, Inc.
- Sherin, A. (2012). *Design Elements: Color Fundamentals*. Rockport Publishers.
- Stein, B. (2017). *Webfont Handbook*. New York: A Book Apart.
- White, A. (2011). *The Elements of Graphic Design* (Second Edi). New York: Allworth Press.

## Materials

- Andreia Pinto de Sousa, *Basics of Visual Design*, [Illustrations presented in class](#), February 2021
- Amy Schade, Yunnuo Cheng, And Samyukta Sherugar [Top 10 Enduring Web-Design Mistakes](#), last accessed in February 2021.
- Jakob Nielsen [Top 10 Information Architecture \(IA\) Mistakes](#), last accessed in February 2021.
- Jakob Nielsen [Top 10 Application-Design Mistakes](#), last accessed in February 2021.
- Jason Santa Maria, [On Web Typography](#), last accessed in February 2021.
- Jeffrey Zeldman [Understanding Web Design](#), last accessed in February 2021.
- Melissa Clarkson [Elements of Visual Communication](#), last accessed in February 2021.
- Nick Babich, [Icons As Part Of A Great User Experience](#), last accessed in February 2021.
- Aurora Harley, [Icon Usability](#), last accessed in February 2021.

## Summary

- An introduction to Interaction Design, by Andreia Pinto de Sousa. Principles, Patterns, and Usability.
- Introduction to the elements and principles of Visual Communication Design, by Andreia Pinto de Sousa.

— *LBAW, 2020/21*

« [Previous](#) | [Index](#) | [Next](#) »

From:

<https://web.fe.up.pt/~jlopes/> - JCL

Permanent link:

<https://web.fe.up.pt/~jlopes/doku.php/teach/lbaw/lectures/02>

Last update: **24/02/2021 18:31**

