



GLIS 625: Information Architecture Course Syllabus, Fall 2018

Education Building, Room 627

Thursdays 11:30 – 2:30

[Prof. Max Evans](#)

The profusion of information currently available to individuals and organizations often causes us to feel overloaded and overwhelmed with information. This is why it is increasingly important for information professionals to possess the skills necessary to design familiar and coherent information environments that are easy to search, navigate, and understand. Information Architecture (IA) is a design discipline that examines systematic methods and processes relating to analyzing, designing, implementing, evaluating, and using structured information spaces. Simply put, IA is concerned with, and focuses on, organizing information for optimal findability and understandability. Using these principles and practices information professionals can best share information through their design of information products and services. They can also better recognize information seeking needs and behaviours of users in order to create information spaces (contexts) that help them better understand information.

The goal of this course is to provide an overview of information architecture (IA), including the problems it addresses and the definitions and terminology it employs. The course will introduce students to fundamental components (anatomy) of IA (i.e., organization systems, labeling systems, navigation systems, search systems, and metadata) and explain how they are interconnected.

Course Learning Objectives: By the end of this course students should be able to:

1. Critically assess selected IA conceptual tools, techniques, and methods.
2. Identify the important elements of an IA strategy and the steps it takes to bring that strategy to life.
3. Understand the role of an information systems analyst and how they contribute to organizational activities and business processes.
4. Systematically evaluate information environments and suggest design improvements using IA theory/principles

Methods: Lectures, group discussions, and in-class design studio activities

Textbooks:

1. Rosenfeld, L., Morville, P., & Arango, J. (2015). *Information architecture: For the web and beyond (4th ed.)*. Sebastopol, CA: O'Reilly Media. ISBN 1491911689 (Hereinafter referred to as RMA) [e-Book Available]
2. Krug, S. (2014). *Don't make me think revisited: A common sense approach to web and mobile usability*. Berkeley. [e-Book Available]

Grades and Evaluation: (*Specific details for each assignment will be posted on the Portal)

Evaluation*	Proportion of Grade	Due Date
<u>Individual Assignments</u>		
1) Generalized Typology, Organization Scheme, and Structure	22.5%	Oct. 18
2) Search System and Navigation Stress Test	22.5%	Nov. 15
3) Class Preparation and Group "Design Studio" Assignments	22.5%	Ongoing
4) Group Project (Information Environment Analysis and Redesign)	32.5%	Dec. 6

Course Schedule:

<i>Week</i>	<i>Date</i>	<i>Topic</i>
1	Sept. 13	1) Introduction to the Course 2) Introduction to Information Architecture

Required Readings:

1. RMA Chapter 1. The Problems that Information Architecture Addresses
2. RMA Chapter 2. Defining Information Architecture
3. Garrett, J.J. (2000, Mar.). The Elements of User Experience: Diagram.
<http://www.jjg.net/elements/pdf/elements.pdf>

Additional Readings:

1. Barker, I. (2005). What is Information Architecture? *KM Column*. May.
http://www.steptwo.com.au/files/kmc_whatinfoarch.pdf
2. Brown, D. (2010). Eight principles of information architecture. *Bulletin of the American Society for Information Science and Technology*, 36 (6).
3. Dillon, A., & Turnbull, D. (2010). Information architecture. In *Encyclopedia of Library and Information Science (3rd Ed.)*. 1:1, 2361-2368.
4. Dillon, A. (2002). Information architecture in JASIST: Just where did we come from? *Journal of the American Society for Information Science and Technology*, 53(10), 821-823.
5. Jacob, E.K., & Loehrlein, A. (2009). *Information architecture*. *Annual Review of Information Science and Technology*, 43(1), 1-64.
6. Toms, E.G. (2002). Information interaction: Providing a framework for information architecture. *Journal of the American Society for Information Science and Technology*, 53(10), 855-862.

2	Sept. 20	1) Finding and Understanding Information 2) Introduction to Information System Analysis
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Required Readings:

1. RMA Chapter 3. Design for Finding
2. RMA Chapter 4. Design for Understanding
3. Nielsen, J. (1995). *10 Usability Heuristics for User Interface Design*.
<https://www.nngroup.com/articles/ten-usability-heuristics/>

3	Sept. 27	1) Basic Principles of IA
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Required Readings:

1. RMA Chapter 5. Anatomy of an Information Architecture

Additional Readings:

1. Davidson, W. H. (1993). Beyond re-engineering: The three phases of business transformation. *IBM Systems Journal*, 32(1), 485-499.
2. Hammer, M. (1990). Reengineering work: don't automate, obliterate. *Harvard Business Review*, 68(4), 104-112.

4	Oct. 4	Organization Systems
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Required Readings:

1. RMA Chapter 6. Organization Systems

Additional Readings:

1. Hedden, H. (2010). *The Accidental Taxonomist*. Information Today Inc., Medford, NJ.
2. Stewart, D.L. (2011). *Building Enterprise Taxonomies (2nd Ed.)*. Mokita Press. ISBN: 978-0578078229.

- Oct. 8 **Study Break**
– Oct.
12

5 Oct. **Labeling Systems**
18

Required Readings:

1. RMA Chapter 7. Labeling Systems

*** Generalized Typology, Organization Scheme, and Structure
Assignment Due**

6 Oct. **Guest Lecture:** Stephanie Lemieux & Michele Jenkins from Dovecot Studio
25 (<http://www.dovecotstudio.com/>)

Required Readings:

1. RMA Chapter 8. Navigation Systems

7 Nov. **Navigation Systems**
1

Required Readings:

1. RMA Chapter 9. Search Systems
2. Instone, K. *Navigation Stress Test*. <http://instone.org/navstress/>

8 Nov. **Search Systems**
8

Required Readings:

1. RMA Chapter 10. Thesauri, Controlled Vocabularies, and Metadata

Additional Readings:

1. Donn, K., Plaisant, C., & Shneiderman, B. (1996, May). Query previews in networked information systems. In *Digital Libraries, 1996. ADL'96., Proceedings of the Third Forum on Research and Technology Advances in Digital Libraries* (pp. 120-129). IEEE.
2. Greene, S., Marchionini, G., Plaisant, C., & Shneiderman, B. (2000). Previews and overviews in digital libraries: Designing surrogates to support visual information seeking. *Journal of the American Society for Information Science*, 51(4), 380-393.
3. Hearst, M. (2006, August). Design recommendations for hierarchical faceted search interfaces. In *ACM SIGIR Workshop on Faceted Search* (pp. 1-5). <http://flamenco.berkeley.edu/papers/faceted-workshop06.pdf>
4. Hearst, M. A. (2011). 'Natural' search user interfaces. *Communications of ACM*, 54(11), 60-67.
5. Wilson, M.L., Kules, B., Schraefel, M.C., & Shneiderman, B. (2010). From keyword search to exploration: Designing future search interfaces for the web. *Foundations and Trends in Web Science*, 2(1), 1-97. <http://www.cs.swan.ac.uk/~csmx/pubs/FnTWebSci-Wilson.pdf>

9 Nov. **Thesauri, Controlled Vocabularies, and Metadata**
15

Required Readings:

1. RMA Chapter 11. Research

Additional Readings:

1. Elings, M.W. and G. Waibel. (2007). Metadata for all: Descriptive standards and metadata sharing across libraries, archives and museums. *First Monday*, 12(3).
2. Hearst, M. (2006). Clustering versus faceted categories for information exploration. *Communications of the ACM*, 49(4), 56-61.
3. Leise, F. (2004). Metadata and Content Management Systems: An introduction for indexers. *The Indexer*, 24(2), 71-74. http://www.theindexer.org/files/24-2/24-2_071.pdf
4. Leise, F., Fast, K., & Steckel, M. Boxes and Arrows Articles:
 - a) *What Is a Controlled Vocabulary?* December 16, 2002: <http://boxesandarrows.com/what-is-a-controlled-vocabulary/>
 - b) *Creating a Controlled Vocabulary* April 7, 2003: <http://boxesandarrows.com/creating-a-controlled-vocabulary/>
 - c) *Synonym Rings and Authority Files* August 26, 2003: <http://boxesandarrows.com/synonym-rings-and-authority-files/>
5. Morrison, P. J. (2008). Tagging and searching: Search retrieval effectiveness of folksonomies on the world wide web. *Information Processing and Management*, 44, 1562-1579.
6. Schwartz, C. (2001). Controlled vocabularies. In *Sorting out the web: Approaches to subject access*. pp. 83-108. Westport, CN: Ablex Publishing.
7. Wodtke, C., & Govella, A. (2009). A bricklayer's view of information architecture (pp. 65-77). In *Information architecture: Blueprints for the web*. (2nd Ed.) Berkeley: New Riders.
8. Yee, K. P., Swearingen, K., Li, K., & Hearst, M. (2003, April). Faceted metadata for image search and browsing. In *Proceedings of the SIGCHI conference on Human factors in computing systems* (pp. 401-408). ACM.

*** Navigation Stress Test and Search System Assignment Due**

10 Nov. **1) Integrating IA into the Development Process**
22 **2) Research Methods for IA**

Required Readings:

1. RMA Chapter 12. Strategy

11 Nov. **Developing an IA Strategy / Homepage and Mobile Design**
29

Required Readings:

1. RMA Chapter 13. Design and Documentation
2. UserWorks. (2006). Strategy Recommendations Report: American Library Association Website. December. http://wikis.ala.org/webplanning/images/d/d8/Strategy_Recommendations_Report.pdf

Additional Readings for IA in Mobile Design:

1. Ding, W., & Lin, X (2009). Information Architecture: The design and integration of information spaces. *Synthesis Lectures on Information Concepts, Retrieval, and Services*, 1(1), 1-152 (Chapter 9: Design Patterns, Emerging Principles, and Mobile Considerations).
2. Dinh, H. T., Lee, C., Niyato, D., & Wang, P. (2013). A survey of mobile cloud computing: Architecture, applications, and approaches. *Wireless Communications and Mobile Computing*, 13(18), 1587-1611.
3. Hooper, S., & Berkman, E. (2011). *Designing mobile interfaces: Patterns for interaction design*. O'Reilly Media, Inc.
4. Huber, J., Steimle, J., & Mühlhäuser, M. (2010). Toward More Efficient User Interfaces for Mobile Video Browsing: An In-depth Exploration of the Design Space. In *Proceedings of the International Conference on Multimedia* (pp. 341-350).
5. Medhi, I., Patnaik, S., Brunskill, E., Gautama, S. N., Thies, W., & Toyama, K. (2011). Designing mobile interfaces for novice and low-literacy users. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 18(1), 2.
6. Neil, T. (2014). *Mobile design pattern gallery: UI patterns for smartphone apps*. Sebastopol, CA: O'Reilly Media.
7. Parush, A., & Yuviler-Gavish, N. (2004). Web navigation structures in cellular phones: The depth/breadth trade-off issue. *International Journal of Human-Computer Studies*, 60, 753-770.

12 Dec. **Guest Lecture:** Jens Degn-Andersen – Content Specialist at Ubisoft Montreal
6 [\(http://montreal.ubisoft.com/en/\)](http://montreal.ubisoft.com/en/) / **Guidelines for Diagramming and Documenting an Information Architecture**

Additional Readings:

1. Brown, D. M. (2010). *Communicating design: Developing web site documentation for design and planning*. New Riders.

*** Group Project Due Dec. 6th**

Contact:

The best way to reach me (Professor Evans) is by e-mail at max.evans@mcgill.ca. I will do my best to answer your questions within 24 hours, but please allow me 48 hours. If you wish to see me, please contact me for an appointment or come during **office hours: Tuesdays from 10:30-11:30**. My office is Room 202A at SIS.

Assignment Submission Format

The preferred format for each submissions is assignment specific. However, the header should have the course number and assignment number/name on the left and your name (group members' names) on the right. The footer should contain page numbers on the right and the date on the left.

Submit all assignments on the portal in .pdf format. Combine into 1 document, whenever possible.

Your answers must be substantiated with: **1) evidence from the textbook (or other IA readings) and 2) screenshots of the actual websites/information environments.**

Below are some links that cover how to take different kinds of screenshots in Windows and Mac environments:

- Microsoft Windows: <http://www.wikihow.com/Take-a-Screenshot-in-Microsoft-Windows>
- Mac OS X: <http://www.wikihow.com/Take-a-Screenshot-on-a-Mac>

Additional Resources:

1. Brown, D. M. (2010). *Communicating design: Developing web site documentation for design and planning*. New Riders. Chicago, IL.
2. Lynch, P. J., & Horton, S. (2008). *Web style guide: Basic design principles for creating web sites (3rd Ed.)*. Yale University Press, New Haven, CT. <http://webstyleguide.com/wsg3/index.html>
3. Mvungi, S., De Jager, K., & Underwood, P. (2008). An evaluation of the information architecture of the UCT Library web site. *South African Journal of Libraries and Information Science*, 74(2), 171-182.
4. Resmini, A., & Rosati, L. (2011). *Pervasive information architecture: Designing cross-channel user experiences*. Elsevier.
5. Unger, R., & Chandler, C. (2012). *A project guide to UX design: For user experience designers in the field or in the making (2nd Ed.)*. New Riders.
6. Wodtke, C., & Govella, A. (2011). *Information architecture: Blueprints for the web*. Pearson Education India.

Usability.com Articles:

1. *Card Sorting*. <http://www.usability.gov/how-to-and-tools/methods/card-sorting.html>
2. *Content Strategy Basics*. <http://www.usability.gov/what-and-why/content-strategy.html>
3. *Interaction Design Basics*. <http://www.usability.gov/what-and-why/interaction-design.html>
4. *Personas*. <http://www.usability.gov/how-to-and-tools/methods/personas.html>
5. *Planning a Usability Test*. <http://www.usability.gov/how-to-and-tools/methods/planningusability-testing.html>
6. *Prototyping*. <http://www.usability.gov/how-to-and-tools/methods/prototyping.html>
7. *Reporting Usability Test Results*. <http://www.usability.gov/how-to-andtools/methods/reporting-usability-test-results.html>
8. *Scenarios*. <http://www.usability.gov/how-to-and-tools/methods/scenarios.html>
9. *Task Analysis*. <http://www.usability.gov/how-to-and-tools/methods/task-analysis.html>
10. *Use Cases*. <http://www.usability.gov/how-to-and-tools/methods/use-cases.html>
11. *User Experience Basics*. <http://www.usability.gov/what-and-why/user-experience.html>
12. *Wireframing*. <http://www.usability.gov/how-to-and-tools/methods/wireframing.html>

Useful Software:

1. Microsoft Visio (<https://products.office.com/en-ca/visio/flowchart-software>)
 - a. http://www.nickfinck.com/blog/entry/visio_stencils_for_information_architects/
2. Axure RP Software
 - a. Free Education License <https://www.axure.com/edu>
 - b. Axure RP Flow Diagrams tutorial: <http://www.axure.com/learn/flow-diagrams>

Other Online Resources:

1. The Information Architecture Institute: <http://iainstitute.org/>
2. Boxes and Arrows: <http://boxesandarrows.com/>
3. Journal of Information Architecture: <http://journalofia.org/>
4. American Society for Information Science and Technology (ASIS&T): Information Architecture Special Interest Group: <http://www.asis.org/SIG/ia.html>
5. Usability.gov: <http://www.usability.gov/>
6. UPA: Usability Professional's Association: <http://uxpa.org/>

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General Information:

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism, and other academic offences under the Code of Student Council and Disciplinary Procedures (see www.mcgill.ca/integrity for more information).

If you have a disability please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the Office for Students with Disabilities at 398-6009 before you do this.

Additional policies governing academic issues which affect students can be found in the McGill Charter of Students' Rights: <http://ww2.mcgill.ca/students-handbook/chapter1.html>

The students have the right to write exams and papers in French.

No extension, delay, or late assignments will be accepted. The only acceptable circumstances for an extension or delay: personal illness and illness in the immediate family (physician's certificate is required).