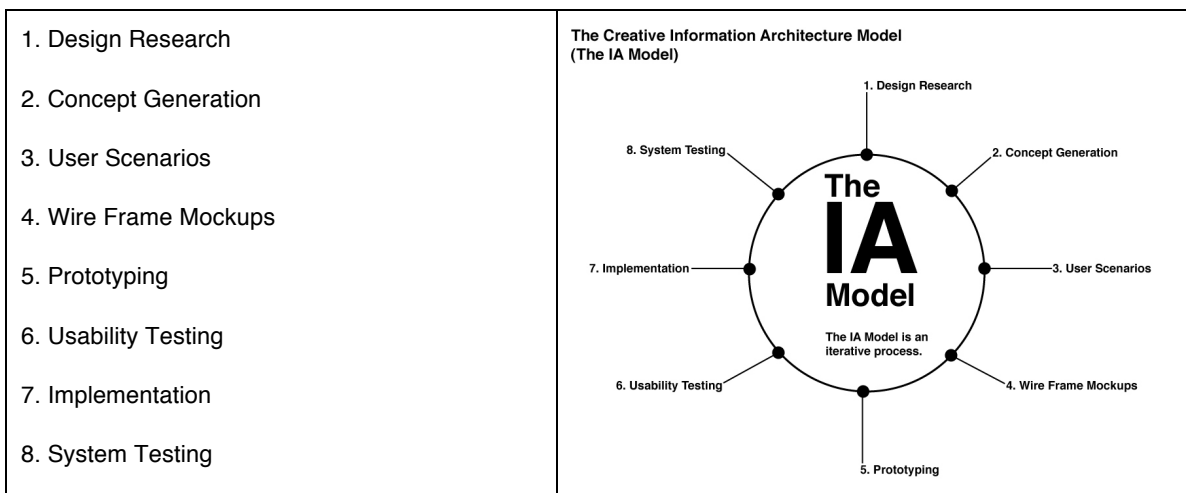


Current Trends—Information Architecture & Usability Testing
The Creative Information Architecture Model (The IA Model)

An Online Tutorial for Instructional Designers to Learn about Information Architecture

**AN ONLINE TUTORIAL FOR INSTRUCTIONAL DESIGNERS
TO LEARN ABOUT INFORMATION ARCHITECTURE**



By
STEVEN HEITMAN

**Current Trends—Information Architecture & Usability Testing
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**AN ONLINE TUTORIAL FOR INSTRUCTIONAL DESIGNERS
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A Creative Work Thesis Report

Submitted as a Partial Fulfillment of the Requirements for:

MASTER OF ARTS DEGREE IN EDUCATION

With a Concentration in Instructional Technologies

By

STEVEN HEITMAN

San Francisco, California

May 2008

**Current Trends—Information Architecture & Usability Testing
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CERTIFICATION OF APPROVAL

I certify that I have supervised and read the Creative Work Thesis Report: *An Online Tutorial for Instructional Designers to Learn about Information Architecture* by Steven Heitman. In my opinion, it meets the criteria for approving a culminating study submitted in partial fulfillment of requirements for the Master of Arts Degree in Education (MAEd) at San Francisco State University.

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**SR INFORMATION ARCHITECT SPECIALIST
CORPORATE TRAINING SPECIALIST**

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- The NS Model
- The IA Model
- The ADDIE Model

**Current Trends—Information Architecture & Usability Testing
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**AN ONLINE TUTORIAL FOR INSTRUCTIONAL DESIGNERS
TO LEARN ABOUT INFORMATION ARCHITECTURE**

**Steven Heitman
San Francisco State University
May 2008**

ABSTRACT

This Instructional Design Plan and Thesis Report are comprised of eight sections that detail pertinent instructional design theories and solid instructional design pedagogical approaches for creating an excellent online learning environment and resource about Information Architecture. The purpose and significance of this Instructional Design Plan is to create a viable Instructional Design Plan based upon The ADDIE Model, and also developing an online tutorial for Corporate Trainers to learn about The Creative Information Architecture Model (The IA Model)—current trends in Information Architecture. The online IA tutorial about Information Architecture can provide or supplement a learner’s knowledge base about the professional practice of Information Architecture, usability testing, and Website design. Since Information Architecture and user-centered design adds value, structure, and integrity to Websites, this online tutorial provides meaningful online learning experiences for learners that desire to learn about The IA Model. Instructional Designers may find this tutorial especially useful because they can easily relate to a new Model—understanding why a systematic approach increases the level of usability on Websites and user-centered design for digital design products—that makes: sense-making, findability, and wayfinding easier for learners. The Thesis Report and Online IA Tutorial were reviewed by Senior Information Architects, Director of User Experience, Technical Writer, Writer and Editor, and a Chief Executive Officer, and a one-on-one pilot test was done—all of these items were deemed appropriate, effective tools for learning, and content was assessed as accurate with regard to Information Architecture and Usability Testing.

I certify that the Abstract is a true and correct representation of the content for this Creative Work Thesis Report.

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TRADEMARKS

Trademarked names appear throughout this Creative Work project and Thesis Report. Rather than list all of the names and organizations that own the trademarked names, the researcher, Steven Heitman, states that he is using the names only for editorial purposes and to the benefit of the trademark owners, with no intention of infringing upon that trademark.

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EPIGRAPH

I am a great believer in having professional information architects design the structure of professional information projects such as corporate Website and Intranets. But I also think there will be an increasing role for personal information architecture in the future. It will soon be time to teach a simplified version of the discipline to high school students, and possibly even to bring it into elementary schools.

—Jakob Nielsen
Usability Expert

After all, usability really just means making sure that something works well: that a person of average (or even below average) ability and experience can use the thing—whether it's a Website, a fighter jet, or a revolving door—for its intended purpose without getting hopelessly frustrated.

—Steve Krug
Usability Expert

Information Architecture, navigational systems, user-centered design, and usability testing improves an end user's performance—if incorporated into Websites or digital design products prior to implementation—using The Creative Information Architecture Model (The IA Model). It provides a systematic approach for producing high-quality Websites or digital design products for any person.

—Steven Heitman
Senior Information Architect

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REVIEWS

It does a good job of introducing Information Architecture concepts to a student, and offers numerous modes of communication, including illustrations, links, diagrams, and citations from authoritative sources....
...excellent courseware module and a solid introduction to the topic of Information Architecture.

**—Christian Crumlish
Senior Information Architect**

Great stuff!

**—Natalie Buda
Director of User Experience
Senior Information Architect**

His work in his Thesis Report and detailed analysis, instructional design goals and objectives, and online IA tutorial are on target. The Tutorial works well for delivery of instructional materials....

**—Megan Descalso
Writer, Editor**

I'm really impressed with the site. It's got a very professional look and feel to it. I'm impressed by the strong visual/graphic contrast. It helps to differentiate areas of the tutorial. I also liked that you employed an engaging and reassuring writing style. It fits with the intended audience. It's a smart move, because the subject matter and the scope of the tutorial could be perceived as a little intimidating to a beginner. For someone like me, who has little to no experience with this subject matter, the writing style was comforting. I felt at ease embarking on the tutorial. Nice work. Really well done!

**—Raymond Angelo
Technical Writer**

Through analysis of the researcher's work, it is congruent with my experiences in regard to using Websites. The researcher's knowledge base of Information Architecture, usability testing, and navigational systems speaks to the importance, significance, of user-centered design. Steven's research is extremely coherent, valid, and valuable regarding Information Architecture concepts and inventions on navigational systems.

**—Deborah A. Jacobs
Chief Executive Officer
Product Designer**

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ACKNOWLEDGMENTS

I am especially thankful and grateful to Dr. Beatty, Dr. Michaels, Dr. Hyun, and Dr. Foreman for all their assistance in completing this Creative Work Thesis Report. Their insights about instructional design, research, Information Architecture, Usability Testing, and user-centered design were on target. I would like to thank the many Information Architect mentors for sharing their insights on how they practice Information Architecture in the real world. I would also like to thank my dear mother and father—you taught me about learning at an early age, integrity, and the value of education.

**Steven Heitman
Senior Information Architect
San Francisco, CA USA**

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EXECUTIVE SUMMARY

Introduction: The Instructional Design Plan

The purpose and significance of this Instructional Design Plan Report is to create an Instructional Design Plan, using The ADDIE Model. Developing an online IA tutorial for Corporate Trainers or others to learn about The Creative Information Architecture Model (The IA Model)—current trends in Information Architecture (IA). Because Information Architecture is a *new* and *emerging* industry, a few Universities are now offering graduate-level programs to learners. The online IA tutorial about Information Architecture can provide or supplement a learner’s knowledge base about the professional practice of Information Architecture, usability testing, and Website design. This Instructional Design Plan and Thesis Report are comprised of eight sections that detail instructional design theories of Dick & Carey, et al., (2005), including an online IA tutorial, annotated bibliography, glossary and definitions, and syllabus. In addition, items were reviewed by Senior Information Architects, Director of User Experience, Technical Writer, Writer and Editor, and Chief Executive Officer—documents were deemed effective tools, resources, and accurate with regard to content on Information Architecture and Usability Testing.

The Solution: The IA Model

The solution is for Information Architects to think about using The IA Model—and use it. It is a required component to building Websites because using a good model gives one a solid framework in which to work. That means nothing is left to guessing about user-centered design prior to implementation. When user-centered design and principles are taken into consideration, end users can easily access information on Websites. The IA Model is comprised of eight steps: 1. Design Research, 2. Concept Generation, 3. User Scenarios, 4. Wire Frame Mockups, 5. Prototyping, 6. Usability Testing, 7. Implementation, and 8. System Testing. When an Information Architect takes a systematic approach using The IA Model, research revealed that this method was more effective.

Conclusion: Use The IA Model and Do Usability Testing

The Information Architect does research and brainstorming to come up with high-level concepts. It is necessary to do this for an Information Architecture Design Plan Report. Completing a competitive analysis and writing a report, documents requirements for Websites. This helps a client to define their end users and their business plans. Figuring out what the patterns will be, this provides clarity with regard to Information Architecture. Enabling end users to stay found and wayfind on Websites, then implementing clear navigational systems. Building in affordances for end users, so they can navigate. Designing clear interfaces and for consistency in interface designs, this provides clarity for end users. Information Architecture, user-centered design, and usability testing improves an end user’s performance. The IA Model assists Information Architects to design high-quality Websites.

SECTION ONE

BACKGROUND INFORMATION

1.1 Introduction: To the Instructional Design Plan— The Need for an Online Information Architecture Tutorial

According to research and current trends in Information Architecture and user-centered design “best practices,” a systematic approach and usability standards should be incorporated and implemented into Websites and/or digital design products at the onset of projects. Information Architecture (IA), navigational systems, search functions, user-centered design, and usability testing may be overlooked prior to the onset of designing and building a Website, Intranet, or other digital design products.

Many researchers assert that Information Architecture and Usability Testing are very important components to Websites and/or digital design products. According to these authors—Nielsen, et al., (2000, 1994, 2002), Morville & Rosenfeld (2006), Rubin (1994), Lidwell, et al., (2003), Andres (1999), Apple Computer, Inc. (1992), Cooper, et al., (2003), DiNucci, et al., (1998), Fleming (1998), Frick, et al., (2004), Goto, et al., (2005), Habermann, et al., (1998), Horton (1994), Jacobson, et al., (1999), Kim, et al., (2005), Krug (2006), Scott, et al., (2000), Tidwell (2006), Williams, et al., (1998), Woodford, et al., (2007), Heitman (2000), and the U.S. Government Printing Office’s publication for *Research-Based Web Design & Usability Guidelines* (2006) reiterate that: significant usability problems or structural problems may arise in Websites and/or digital design products due to lack of Information Architecture. If principles of “best practices” for usability are not followed, design products may be defective or lack in usability.