Implementing User Interface Standards

The previous article in this series discussed the importance of user interface standards and why you might want to a standard for your user interface or design work. This article will look at some standards and guidelines. As you consider them, keep in mind that a standard might not be ideally suited to your needs. You may need to revise or supplement it.

How do you decide which standard is best for you or your organization? It's beyond the scope of this article to compare these standards and recommend some over others. Different standards are better in different situations and you need to decide what's the best fit for you. As you consider standards, here are some things to consider:

- How relevant is the standard to the work you are doing? There are specific standards for hardware, software, and content, as well as more general standards on human performance that adopted to different situations. Which is the best for your work?
- What are the benefits of following the standard? If you need to standardize user interface design across your team, will adopting a standard save you the effort of developing your own standard? Will it increase your credibility with customers or peer organizations?
- Is the standard credible? What is the consensus and research behind the standard? How widely is the standard accepted?
- At what level should the standard apply to your work? In other words, do you need prescriptive guidance on user interface specifics, or more fundamental information on human perception and performance that you can use to develop your own specific guidelines?
- Is the standard itself usable? Is it comprehensive and can you find the guidance you need?

Books and Articles

There is a lot to chose from here -- a quick search on Amazon for "user interface guidelines" generates over 1,000 results! If you broaden the scope to include content guidance (The Chicago Manual of Style or Words into Type, for example), there is even more information available.

Books may present guidance based on original research or, more likely, a survey of other experimental results; but often do not "undergo any systematic consensus building process,"[1] which is a characteristic

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1 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=7&ved=0CEsQFjAGahUKEwjGgcnd1dbHAhUFl4gKHTQVDb4&url=http%3A%2F%2Fciteseerx.ist.psu.edu%2Fviewdoc%2Fdownload%3Fdoi%3D10.1.1.199.9542%26rep%3Drep1%26type%3Dpdf&usg=AFQjCNHcKYL_kB4uoo_dMP6ViwNUCFXJAg&cad=rja

of the corporate and working group/government standards discussed below. So the credibility of the book often rests on the credibility and expertise of the individual author. Some authors, such as Jakob Neilson, Don Norman, and Bruce Tognazzini are highly popular and respected. Some books are quite popular; a few of my favorites are Designing Interfaces by Jenifer Tidwell, The Design of Everyday Things by Donald Norman, and The Design of Sites by Douglas Van Duyne. In addition, there are many academic articles that are much more likely to be based on rigorous research, but are less accessible to most readers.

Corporate Standards

Published corporate standards can be very important. These are standards created by companies such as Apple, Microsoft, or Google that have been adapted--often widely adopted--outside the company that published them.

- Unsurprisingly, **Apple**, being a design-centric firm, offers a lot of information for user interface designers. The first article in this series mentioned Apple's iOS Human Interface Guidelines, which iOS developers hoping to be Apple's app store must follow. Apple also has OS X Human Interface Guidelines and Apple Watch User Interface Guidelines. Their guidelines are extensive and detailed.
- **Google** similarly provides much valuable information:
  - Their Google Design site is a "cooperative effort led by a group of designers, developers, writers, and UX advocates at Google whose goal is to capture and share our work and ideas with you."[2]
  - Google provides extensive user interface guidelines for Android, focusing on design, including downloads and recommendations and advice from designers.
  - Google's Webmaster Guidelines are well known and "will help Google find, index, and rank your site."[3]
- **Microsoft's** provides much design information as well.
  - The Window's Dev Center provides Design applications for the Windows desktop and Guidelines for Universal Windows Platform (UWP) apps.
  - Microsoft's User Interface Guidelines for Microsoft Windows is intended more for developers.
  - Their Microsoft Manual of Style is a classic reference -- one of the first user interface standards.
- There are many other corporate standards, such as Oracle's Java Look and Feel Design Guidelines and IBM's Design Principles.

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[2] https://design.google.com/about/#hello-world, 3 September 2015

[3] https://support.google.com/webmasters/answer/35769#1, 3 September 2015

Government and Working Group Standards

Published organizational standards are "impartial best practices or definitions that act at a national, multinational or international level."[4] These standards often are based on the consensus of large working groups, with a scope that transcends single companies or platforms. They are the result of substantial effort. For example the standards published by the World Wide Web Consortium (W3C) define the Open Web Platform, a large collection of Web technologies. While these standards are often technical in nature, user Interface and human factors standards exist as well.

Organizations may choose to adopt one of these standards, or in some cases may even pay for formal certification. In some cases, being certified to a standard greatly increases credibility and may open the door to business opportunities (think of ISO 9000 quality certification).

- ISO 9241, Ergonomics of Human System Interaction, is a large, complex standard from the International Organization for Standardization that "provides requirements and recommendations for human-centred design principles and activities throughout the life cycle of computer-based interactive systems."[5]
- The US government's usability.gov site covers the basics of user experience, content strategy, project management, and visual design.
- The Engineering Data Compendium: Human Perception and Performance is a classic work on human performance. This multi-volume work is based research and development into basic human performance of military crews.
- The Human Factors Design Standard is "an exhaustive compilation of human factors practices and principles integral to the procurement, design, development, and testing of FAA systems, facilities, and equipment."[6]
- NASA's Man-Systems Integration Standards similarly focus on classic human factors (hardware and human performance) more than software interface issues.

These are just a few of the many standards that exist. Are there other standards that you like and use? Let me know in the comments.

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[4] http://www.uxbooth.com/articles/what-on-earth-is-iso-9241/, 3 September 2015

[5] http://www.iso.org/iso/catalogue_detail.htm?csnumber=52075, 3 September 2015

[6] http://hf.tc.faa.gov/hfds/, 7 September 2015