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A Review of Ambient Findability: What We Find Changes Who We Become, by Peter Morville

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There are four “firsts” associated with my reading Peter Morville’s new book Ambient Findability. Never before have I: borrowed a book, read it, and then bought it because I liked it so much; rated and reviewed a book on Amazon.com [I gave it five stars and headlined it “Librarians: please read this book!”]; devoted a professional book like a steamy novel; nor have I ever before read an O’Reilly book cover to cover. Since it inspired these four exceptional acts, I concluded that at least for me, Ambient Findability is a “book that matters.” — EFD

Since I started talking up this book a couple of weeks ago, two other librarians have admitted to me that they had the same little surge of satisfaction (or even pride) that they could understand and enjoy an O’Reilly book. Most of the time, we’ve tended to find O’Reilly books technical and difficult. This one is neither. It’s a witty, engaging, and insightful overview of how people find and use information and how Web technology intersects with these behaviors. Morville, an information architect, librarian, and faculty member at the University of Michigan’s School of Information, weaves threads from psychology, sociology, and information science to create a rich overview of key theories of information seeking and use and their current applications in the Web environment. He introduces and summarizes ideas in an accessible way, covering the history and current significance of topics like taxonomies vs. tagging, relevancy rankings, Web services like del.icio.us and Flickr, pervasive computing, the “long tail,” social software, and the Semantic Web. If we’ve been exposed to these ideas, products, and terms and to the avid debates surrounding them, but would like to understand in more depth what they are, Morville is your man.

And you don’t have to take just my word for it. His book has been nominated for the 2006 JOLT product excellence and productivity award, which “casebook products that have ‘jolted’ the [software] industry with their significance.” And since Morville himself refers to Amazon reviews in the very first pages of his book, calling them “funny, insightful, and valuable,” it seems only appropriate to see what Amazon reviewers have said about Ambient Findability.1 They tend to love this book, calling it a “Core Reference for Large Scale Information Access,” the “Best Information/Research Book I’ve Read in Years;” and describing it as offering “Intelligent Thoughts in Small Packages.” The reviewer who wrote that also said: “I read this book late into the night and finished it wondering when was the last time a computer book, of any kind, was so interesting that it was worth losing sleep over — this is one.” I could certainly relate to that comment, since I devoured the book in just a few days, finding it rarer of reads: the professional literature you can’t put down. A colleague told me the same; she bought the book and stayed up into the wee hours of the next morning tearing through it. Now, it’s true that amid all the Amazon praise there are a couple of disappointed readers. My sense of those like the one who felt the book was “Infuriatingly Fluffy” is that a small subgroup of folks wanted a more technical book, as might have been expected by readers of the more standard O’Reilly fare. But this is a book of ideas, insights and trends — the big picture. And I have no hesitation in recommending it to all the publishers, librarians, vendors, and information providers trying to understand our world.

So what is ambient findability? Morville defines it as “describing a fast emerging world where we can find anyone or anything from anywhere at anytime...information is in the air, literally.” This ambient quality is particularly important because “findability invests freedom in the individual.” The pervasiveness of varying news reports and health information, for example, allows the individual freedom in selection, but also requires new responsibility for, as well as new methods of determining authority and credibility. With information accessible anywhere, the access and authority models we’ve been accustomed to have been turned on their heads, making it essential to re-explore and understand how human beings seek, sift, and evaluate information. Morville spends much of the book entertaining us with his understanding of these activities and making that understanding accessible to his readers.

For example, Morville provides a succinct summary of several significant concepts by taking us into the realm of evolutionary psychology to understand why people do what they do — even when it may not seem optimal, or even fully rational. He discusses Moore’s Law, which says that “people will not seek information that makes their jobs harder (even if it may benefit the organization they work for.)” Or, in the words of the theory’s originator: “An information retrieval system will tend not to be used whenever it is more painful and troublesome for a customer to have information than for him not to have it.” This discussion of the realities of how humans ration information seeking is certainly pertinent to those of us wondering about what services, tools, and products will be used by members of our communities.

Morville also summarizes power laws. Developed by an Italian economist, these laws have entered the popular culture as the “80/20 rule.” The notion is that “many small events coexist with a few large events,” so that for example “80% of the links on the Web point to only 15% of Web pages.” For librarians and publishers, the key point about this rule is that language, and therefore information retrieval, is one of the domains in which power laws operate. For example, the six most frequent words account for 20% of word occurrences. The linguistics researcher who demonstrated this, George Zipf, believed this pattern emerged from the fact that language is used both to describe things and discriminate between them, so that a drive for “general words with many meanings” competes with a drive for “specific words with precise meaning.”

Morville is at his best in telling us not only about interesting theories like this, but in clarifying why they matter. In the case of power laws, Morville says “the upshot of all this analysis is that while recall fails fastest, precision also drops precipitously as fulltext retrieval systems grow larger. . . .the larger system returns too many results with too many meanings.” He points out that controlled vocabularies (which fall in the middle between an unambiguous identifier like an ISBN and a complete description like fulltext) can help with this problem, but “unfortunately, centralized manual tagging efforts also become prohibitively expensive and time consuming for most large-scale applications. So often they can’t be used when they’re needed most.”

This sets the stage for a broader discussion of the differences between and relative advantages of taxonomies, ontologies, and

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folksonomies. In a section called “The Social Life Of Metadata” — a characteristically fun and catchy Morvillian phrase — Morville analyzes how taxonomies, controlled vocabularies, and ontologies, work and what their strengths and weaknesses are. His explanation of ontologies was particularly useful for me, as I’ve found the term and its relation to the Semantic Web very slippery. He explains that ontologies are systems that structure semantic relationships between controlled terms, offering “a taxonomy and a set of inference rules,” and in doing so help provide an infrastructure that captures more than just the associative relationships between entities that the traditional thesaurus offers.

Morville also goes further, asking why ontological approaches like the Semantic Web, and RDF (Rich Description Framework) have “failed to change the world” why they have not become “an integral component of every Web project.” His answer is that “the vast majority of information systems do not warrant the application of structured metadata and controlled vocabularies.” Almost as significant is the fact that “the design of shared classification systems is surprisingly complex, messay, and expensive.” There is a certain “fallacy” in a “rules-based definition…most categories we employ in everyday life are defined by fuzzy cognitive models rather than objective rules.” And, finally, he raises the point that “the design of taxonomies and ontologies is inherently political and moral;” a particular view of the universe is always being imposed.

Contrast this expensive, inherently biased structure with that of the “swarms of social software buffs buzzing around the blogosphere” who are participating in the “broad sociotechnical phenomenon” of social software, which, simply put, is software that “supports group communications.” Such tools have exploded on the Web in recent years, including blogs, Wikipedia, del.icio.us, Flickr, and many others. These tools are characterized by informal social classification or “folksonomy,” and here again, Morville gives us the history of this term. He quotes another writer (David Sifry of Technorati — see http://www.technorati.com) on the merits of folksonomies: “Unlike rigid taxonomy schemes that people dislike, the case of tagging for personal organization with social incentives leads to a rich and discoverable folksonomy. Intelligence is provided by real people from the bottoms-up to aid social discovery. And with the right tag search and navigation, folksonomy outperforms more structured approaches to classification.”

Morville is even-handed throughout this book, and it is probably not chance that led him to present this particular argument in another’s voice. He concludes in a measured manner not that folksonomy is better than structured classification, but that “we don’t have to choose. Ontologies, taxonomies, and folksonomies are not mutually exclusive.” The “formal structure of ontologies and taxonomies” works well situations like a corporate website where it is worth the investment entailed; but folksonomies thrive in the blogosphere where their “casual serendipity … is certainly better than nothing.” To capture this distinction, he repeats a particularly apt metaphor that originated with high-profile blogger David Weinberger: “The new way creates a tree. The new rakes leaves together.” Both the structured hierarchy of the tree and the shifting piles of independent leaves are important, useful, and significant. The strength of his discussion about this topic, like all of those in the book, is that Morville gives us the background in a manner that those new to the topic can understand, he analyzes the various positions, he uses vibrant language to help capture abstract ideas, and he offers the reader his own conclusion, which is usually somewhere in between extremes. It’s educational, it’s satisfying, and it’s somehow both exciting and reassuring at the same time.

Morville’s chapter on “inspired decisions” was one of my favorites. He summarizes the key research on how humans make decisions, and how the human brain makes choices — the deep evolutionary reliance on emotion, and tendency to seek and detect patterns in all information we process. This “bounded irrationality” is not presented as a problem or failure, but simply what is. (Unlike the macroeconomics class I took as an undergrad, what is described actually sounds like real people do.) What’s new about this book, rather than, say, an introductory social science book about human cognition, is that he condenses important concepts and relates them to life in the virtual universe of the Internet.

For example, some of his observations are that:
• The Internet allows us to take advantage of the “power to make better decisions.” In part this is because the Internet allows us to take advantage of “collective intelligence,” the connections other users make for us, with fewer barriers than in the past.
• But at the same time since we “absorb most of our information passively and rely on who we know for much of what we know…and the smallest of barriers will deter us.”
• Systems must be designed in such a way that there are not too many choices, for Morville shows, research is clear that too much information prevents us from concentrating and effectively deciding.
• Humans operate in a world of personal networks, “fuzzy goals, imperfect information, and limited time” with “partially rational minds” that “adapt well enough to ‘satisfice’ but don’t generally optimize.”

With my “limited time” and “partially rational mind,” I was “fuzzy” about why I picked up Morville’s book (although his appealing and inspiring talk at the London Online Conference played a big role in that decision). The book did not disappoint, and I think it did much more than “satisfice.” In fact, I think Ambient Findability is a gift for librarians and publishers who are seeking a conceptual grasp of information seeking and finding in our Webbed world.

Endnotes
1. All review headlines and review quotes as viewed on Amazon.com 2/5/06.
2. Weinberger’s blog is at http://www.hyper.org/blog/era.

Rumors
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the belief that integration and standardization are of paramount importance to the successful flow of information. The project will set up real-use case scenarios to discover whether or not the creation of such a standard identifier for institutions will be beneficial to all parties involved and test implementation strategies. The pilot will be limited to the UK customers of all the participants. Regular reports and findings discovered throughout the project will be published online, along with comments from the participants involved in the project. All this information will be made publicly available.

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The astute Ramune Kubilius <rkubilius@northwestern.edu> sounds word of a Northerner moving South. The awesome Liz Lorbeer <Elizabeth_R_Lorbeer@rush.edu> has accepted a position at the University of Alabama—Birmingham at the Lister Hill

Medical Library as the Associate Director of Content Management. Her last day at Rush University is tentatively March 3. You can reach her after March 3 on her Yahoo email at: <lizlorbeer@yahoo.com>. She says that she should have UAB email in April. Ramune adds that Liz seems to like to live in “B” cities — Buffalo, Boston, (Chicago), now Birmingham.

CrossRef has a new trial service for its member publishers. In partnership with Inera, CrossRef has deployed a custom version of Inera’s eXtrend(r) reXpress that parses unstructured, free-text references into granular and valid XML and returns any matching Digital Object Identifiers (DOIs) for those references. The Free-Text Query form is now available on a trial basis to members on the CrossRef Website. The simple cut-and-paste form accepts references formatted in common bibliographic styles and returns the DOI for the article if one is found. One or more references may be pasted into the form on this page; each reference must

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