## End Note

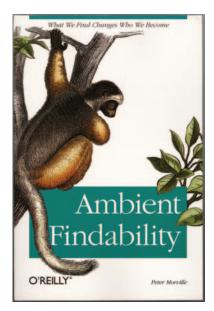
## Lost at Sea

he estimated accumulation is accelerating. Clocked at about five exabytes of information per year, we are now adding "a half a million new libraries the size of the Library of Congress" every 365 days. This is partly due to the effect of Moore's Law that has watched over the doubling of transistors per square inch ever since 1965. According to Peter Morville of the University of Michigan, "It's time we shifted our focus from cre-

ating a wealth of information to addressing the ensuing poverty of attention."

In his book *Ambient Findability*, Morville quotes another Mooer's Law (Calvin) that claims, "Information will be used in direct proportion to how easy it is to obtain." And the key to maximizing our attention is to make all things and all information "findable."

After a brief discussion of wayfinding as practiced by migrating salmon, foraging bees, and lost humans, Morville concludes that finding information on computers and networks like the Web differs from the process that creatures use to create mental maps to navigate the physical world. The physical cues and the senses are of little use in cyberspace because spatial visualization fails in a place devoid of space. The author points out that online "we can move from place to place but without having to traverse distance. Billions of websites [are] all a single click from each other." Wayfinding sets a goal ahead of time, but browsing doesn't. Browsing is a very different kind of activity, and it's an important part of the way we look



for information, people, and products online. Those who have created the most successful websites understand findability and the processes that produce it.

One interesting chapter in the book addresses the differences between marketing online and in the physical world. The material world's billboards, print, radio, and television push messages and branded encouragement out to the customer. Some of the online push efforts, like

spam, haven't fared as well. Morville explains the need for balance with a metaphor. He writes, "Markets are conversations. Or at least they were until the holy trinity of mass production, mass marketing, and mass media derailed the discussion. And in the swirl of cultural, economic, and technological change that surrounds the Internet, the conversations have begun once more." Those who have forgotten how to listen won't fare well in the new marketplace, and listening requires designing pages that both pull and push information.

As the miniaturization of computing devices and the convergence of their functions make "ubiquitous computing" more likely, the need to understand how we react in digital environments becomes more important. Peter Morville explains that because "what we find, changes who we become," we'd better understand what we're doing while we're there in those spaceless places.

To get more information or to read Chapter 1, visit www.oreilly.com and search *Ambient Findability*.