The Audience of One: Making Communication Personal

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Abstract:. Communication teams must adopt an object-oriented approach to content to provide a database of informative objects that can be assembled on the fly for customized delivery to particular niche audiences, and eventually for personalized content for an audience of one. Relying on XML tags, content management software, and a movement sweeping the marketing and manufacturing departments of many large corporations, the drive to provide personalized content is just beginning in technical communication departments, which have resisted the change. But as we move toward single sourcing and XML, we will also be making personalization possible. This paper considers how personalization will affect the technical content we provide to individual users.

Keywords: Personalization, customization, XML, object, object-oriented, single-sourcing, conversation

Customized content—tailored for a particular niche audience—and personalized content—just for you—are both expanding on commercial Web sites, led by marketing, sales, and manufacturing groups (1, 8, 9, 12, 14, 15, 19, 21, 26, 27, 29-31, 36, 38-41). Despite most writers' reluctance to add to their workload, the trend toward customization and personalization of content is changing our users' idea of what is possible, convenient, and acceptable, and they may already regard our current one-size-fits-all delivery of books, PDF files, and Help systems as ungainly, unhelpful, and too clumsy to use.

We need to transform our own conception of audience from a fuzzy mass to a series of distinct individuals. Back a few years, when we were busy creating a book or a CDROM, we often started with a rather vague description of a fairly unified group of users, with one or two subsets. But now that a Web site can interrogate each visitor and retain personal profiles using cookies and database records, our content is surrounded with one-to-one marketing,

individual wish lists, personally selected interfaces, and individual content delivered by services with names such as, yes, Individual. The mass audience, appropriate (even inevitable) for a book or a single help system, is disintegrating into thousands of individuals, with a myriad of roles, goals, tastes, tasks, and preferences.

Accustomed to personalization on the Web, our users want to locate only the answers to particular questions. These consumers do not like to read. They reject books, dislike help systems, and, in fact, refuse to use these large document-like finite piles of data. They increasingly insist that we tailor information to them, on the fly(22-25).

Using content management systems that rely on object-oriented or relational/object databases, we are transforming our old books into sets of discrete objects, some as small as glossary terms or product numbers, some bite size (procedure steps), others more filling (a whole procedure, the complete reference for a set of related commands). The idea of objects lies at the heart of personalization, derived from a decade of theorizing about object models and design (3, 6, 13, 17, 28, 32-35, 37, 42, 43). Across the Web, content providers are turning to the eXtensible Markup Language (XML) and its parent, SGML to create vocabularies of tags to identify even the tiniest element of content by its structural role or meaning, such as procedural step, or author name (4, 7, 10, 11, 16, 18, 20). Exploding our legacy documents into distinct tagged objects makes them easier to re-use in multiple circumstances (several different Web pages) and display formats (Web pages, cell phones, PDAs), customizing content for whatever device the recipient is using.

We can also offer multiple menus leading to the same information objects, because on the Web we do not have to follow the tradition of books and help systems, which tend to provide a single main table of contents. On the Web, convention and the ease of linking allow us to offer not just one, but half a dozen menus, so a user can find information in which ever context he or she prefers. Looking up information on troubleshooting a particular hard disk, for instance, one user might conceive of the information as living under Computers, Peripherals, Hard Disks, Product Lines, Product Number. But another user could find the same information following the menu chain starting with What You Want to Do, through Store my Files, to Electronic Storage, down to Hard Disks, Product Lines, and Product Number. Through multiple menus, each offering a somewhat different perspective on the same set of objects, users can pick the browse paths they feel most comfortable with,

increasing the likelihood that each person will succeed in the task of discovery. They find the paths that mean most to them, personally.

By identifying the objects with tags indicating their role in the structure and their meaning (hierarchical role and semantics), we make personalized content possible, through dynamic content management software and Web application servers. This software allows users to decide exactly which parts of our documentation they want to look at, which parts they want to leave in icon form for possible later use, and which parts they just want to hide. For instance, an engineer might ask to see the functional definition, syntax diagram, parameters, and an example for each command reference, iconizing more rarely used information with buttons that would pop up information on prerequisites, processing algorithms, status, and shortcuts, while refusing our offer of information on error messages and menu locations, as unnecessary. Another user might want the error messages displayed, while hiding the example, and iconizing the menu locations. Because XML tags identify each object's role in these terms, we can, through software, allow users to pick and choose the elements they want automatically displayed, turned into buttons, or kept out of sight. Essentially, we can allow users to build their own documentation out of our objects, defining the layout and content they want, as we draw the pieces out of the underlying database, as needed.

Increasingly, users email us with questions. The writers who must answer these messages look up the answers in the database, pick the most relevant response, and drop it into the reply. Instead of writing books, the writer is answering mail, a tedious chore. But instead of having to draft a new e-mail message for every correspondent, the writer can draw on previously created objects—boilerplate modules—to expand the replies.

Similarly, writers who are assigned to participate in user discussion boards must often look up a few facts, copy the text, and post that as part of the ongoing thread. Having access to previously written chunks, not just entire chapters, increases the speed with which these writers can get back to the user. In effect, the writers are acting like clerks in a mail room, selecting this, that, and the other object to drop into the envelope, and send off.

From the user's point of view, these messages—whether in regular email or discussion boards—address their unique problems, without any other jabber. Personalization, here, means getting the relevant answer fast, rather than saying "Read the fine manual."

Furthermore, by defining attributes for these objects (subject, products mentioned, natural language used, type of documentation, date) we afford users the opportunity to make much more subtle and personal searches for the information they seek. Advanced searches like those on Amazon allow people to avoid the twin devils of too many hits, and too few. In a large database, then, each user has a much better chance of getting search results that correspond to his or her personal wishes.

As writers, we need to adopt an object-oriented approach to our information, using vocabularies developed in XML, so that our users can find just what they want, quickly, view it in exactly the layout they want, or get the information directly from one of our people, who picks the right info object and pops into the reply. We also need to investigate content management, customer relation management, personalization, and syndication software, the tools that are most need by writers, in this new role as conversationalist. In all of these ways we personalize the communication, moving from a publishing model (we make books, you read them) to a conversational model (2, 5, 32, 33), in which we respond to questions from our users, as quickly and adroitly as we can, tailoring our responses to their personalities, concerns, and tasks.

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