

Attending to Performance

by Thom Haller, associate editor for information architecture

Thom Haller, the *Bulletin's* new associate editor for information architecture, is a speaker, writer, user advocate and teacher of principles of performance-based information architecture and usability. Since 1998, Thom has taught classes on architecting usable web/Intranet sites. As a teacher, Thom enables students to structure information so people can find it, use it and appreciate the experience. He can be reached at thom@at.thomhaller.com

If you've been following this column in the *Bulletin*, you know I'm passionate about helping people "appreciate the experience" – to breeze through or savor information, as they prefer, without cognitive interference.

We have all experienced extraneous cognitive overload – that moment when our brains tell us to halt what we're doing so we can figure out how the information is structured before proceeding.

In my classes, I use the menu of a defunct D.C. eatery to exemplify cognitive overload. I distribute copies of the menu (Figure 1) and set the context: "You have five dollars in your pocket, and you are hungry. You want something to eat as quickly as possible."

Envision entering the restaurant, picking up a menu by the door.

Now try to decide what to order.

Instead of supporting you, the menu's information structure thwarts you. Sadly, instead of helping you make choices, the information structure does nothing but confuse you. You'll probably find it visually overwhelming: categories and labels don't make sense, and directions don't help you (as though you needed directions to use a menu). You may experience Hick's Law (as choices increase, time required increases).

But most significantly, you can't figure out how much your meal will cost. You would love to exchange your five bucks for food (so you can eat) but you can't do what you want to do.

You cannot perform.

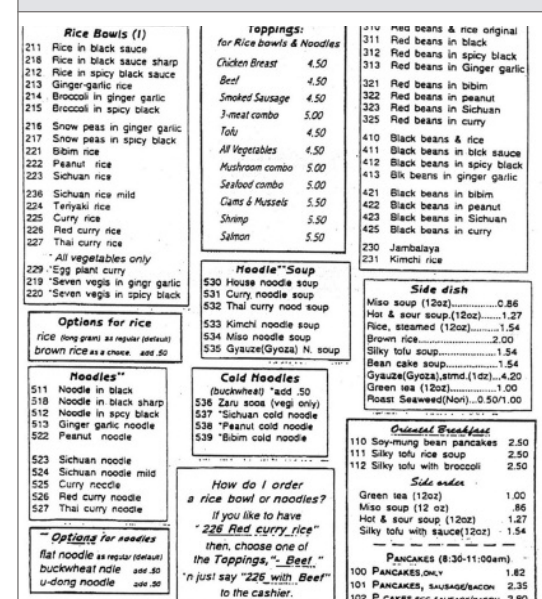
I believe *performance* is at the heart of our work as information architects – helping humans do what they want or need to.

Perhaps *performance* is an awkward word choice. You might typically think of computer

performance rather than human performance. If you find the term confusing, envision performance as "outcomes" or "accomplishment." I've found this equation valuable: "Capacity minus interference equals performance." This equation states that we can accomplish more when we reduce interference.

Among those who attend to human performance is David Sless, an Australian information design theorist and practitioner. David runs the Communication Research Institute (<http://communication.org.au>), which helps industry and government improve the quality of their communication with people. In his work, David explores

FIGURE 1. Cognitive overload



Benchmarking helps us understand the consequences of good or flawed performance.

what happens in the space *between* people and information. His research emphasizes what people do with information and the way they use it to construct meanings appropriate for actions. His findings quite clearly show that the design of information can improve efficiency and productivity.

So What?

I've always been interested in how we can improve the ability for people and organizations to perform better. As someone who often feels thwarted by reading burdensome (often academic) sentences, I began my lifelong quest to make the complex clear. Along the way, I discovered Thomas Gilbert's *Engineering Human Performance*, a foundational text for those of us who love accomplishment. Predictably, the book hurt my brain (Gilbert wrote in a traditional engineering style). So instead of reading it, I carried it around a lot. Despite the challenges, I managed to find a quote that stuck with me: "We can improve human performance as much as 600 percent by improving the structure of information."

I believe it. Improving performance makes good business sense. Improving information structure improves performance. I believe we all have an opportunity to look more closely at the possibilities.

Measure

At the heart of performance thinking is benchmarking – the research and testing done before a redesign that provides the basis for comparison following the redesign. Benchmarking helps us determine whether changes in information structure enable humans to accomplish what they want to. Benchmarking helps us understand the consequences of good or flawed performance.

How do we use benchmarks to help humans? Consider

the following, which we can measure only by establishing benchmarks:

Decreases in

- time to understand (through contrasting, comparing, differentiating)
- time to complete a transaction or work process
- implementation costs (for a system, product, new process, etc.)
- hand-offs of work, calls or problems to others
- transaction costs
- complaints and other measures of dissatisfaction (abandoned processes, reduced sales, etc.)

And increases in

- ability to see consequences of actions
- satisfaction with an organization and its representatives and products, services or information as measured by surveys, follow-up calls or complaint activity

As information architects, we have the opportunity to learn when our constituents are thwarted by information structure. If possible, we should observe actual performers doing actual work in actual work contexts. We should understand what performers need to know, what is better referenced and what is best supported. We should understand the pressures, activities, accountabilities, interruptions, relationships and consequences of good and flawed performance. And we *should* measure.

Attending to performance makes good business sense. It also can be personally satisfying. We serve as gatekeepers, developing an environment to help humans perform. ■