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How to Think Outside the Box

By thinking outside the parameters imposed by technology, executives and designers can build businesses by creating an experience that truly resonates

By [Bill Buxton](#)

I confess to being an early adopter, and much of what is adopted ends up at home. In this, there is some collateral damage—namely, my long-suffering family.

One early adoption came in 1980, when I brought home my first dial-up terminal and started telecommuting. This inevitably led to a conversation that goes something like this:

"Bill, you're always on your @\$&&\$ computer!!!"

My typical response—uttered in complete innocence—goes something like:

"But I'm just doing X."

("X," of course, could be almost anything, such as reading my mail, writing to Mom, planning a great vacation, doing the household accounts, playing a game, looking up something in the encyclopedia, working on my book, reading a newspaper, and so on.)

Sound familiar? Anyone who has a home computer and claims not to have had such a conversation in their household is either a chronic liar or a saint. That being the case, have you ever stopped to wonder why our parents never had a parallel exchange? Theirs, of course, would have been along the lines of: "You're always on your pencil!"

In my parents' age, the pencil was just as prevalent as the computer is today. Yet, the first exchange is almost universal, and the latter borders on the absurd.

SINGLE COMPUTER, MULTIPLE TASKS

In the pre-computer age, we had specific rooms in our homes where certain activities were centered—for instance, games or study or eating. Hence, one had a fairly good idea of what you were doing from the room you were in. And within a particular room, the fact that you were on the couch, at a table, or sitting at a desk gave some indication of not just your activity, but also your level of "interruptability." And then, there were generally all kinds of other physical artifacts that gave away what you were doing. For example, when doing household accounts, you might have a pencil, a checkbook, bills, stamps, envelopes, and a scratch pad for making notes.

These days, virtually all of these cues have disappeared. All that remains—in the extreme telling of the story—is a single device onto which all of the associated information is consolidated in digital form, as are all of the tools. Furthermore, this is true not only for any single task, but for a vast multitude of everyday activities. Hence, to any outside observer, you are always on your computer.

Part of the purpose of design thinking is to improve our ability to tease out conflicts such as the one described above, and figure out how not to throw the baby out with the bathwater. In a way, this is a reflection of the second

"law" of the historian of technology, Melvin Kranzberg, which states: "Invention is the mother of necessity." It is also a reflection of Proust's observation that: "The only true voyage of discovery is not to go to new places, but to have other eyes."

MORE THAN A TECHNOLOGY ISSUE

So when it comes to the matter of "always being on your computer," the question becomes: "How can we restore the cues around activity that would help recapture the moral order of the home while keeping the benefits of the new technology?"

In many ways, this is the kind of question that we were asking ourselves at Xerox PARC back in the 1980s when we were developing the notion of ubiquitous computing. But that makes it too easy to assume that this is about technology. It's not. This issue is not just about technology or the user, but also about place: Where is the activity taking place physically, and in what social context? How can we redesign tools and technologies such that they encourage behaviors, and visibility of activity, that are consistent with such places and values?

User-centered design commonly tries to take into account different canonical user types through the use of persona. Perhaps one thing we need to do is to augment this tool with the notion of "placona," that is, capturing the canonical set of physical and social spaces within which any activity we are trying to support might be situated. After all, cognition does not reside exclusively in the brain. Rather, it is also distributed in the space in which we exercise that knowledge—in the location itself, the tools, devices, and materials that we use, and the people and social context in which all of this exists.

MAKING INNOVATION'S BENEFITS HOLISTIC

By way of example, let me refer to my 89-year-old mother. She loves music, lives where there is terrible radio reception, and has access to my 90-year-old father's computer, which is connected to the Internet and which has speakers in her living room. But despite the fact that all of the right streaming audio and associated software are available in the right room for music listening, the obfuscating cyberbabble of today means the radio is now a browser specialized for accessing streaming audio over the network, while radio buttons are bookmarks. It is simply beyond her understanding and my mother will never gain any benefit from it. Our lack of attention to place, time, function, and human considerations means these fancy new technologies fail to deliver their real potential to real people.

If one of the purposes of design and innovation is to improve our lives—for business, artistic, or familial purposes—then design that does not consider the larger social, cultural, and physical ecosystem is going to miss the mark. Increasingly, the results will make the "Bill, you're always on your @\$&&\$ computer!!!" rant seem mild by comparison. The design and innovation that we deserve and need to strive for should reduce the complexity of living in this world, and improve the quality of life in so doing. Without a conscientious effort to understand that world, we stand little chance of achieving this.

On the other hand, if would-be innovators can integrate these kinds of considerations into their very DNA, the opportunities are limitless, and the path to them far better illuminated.

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