The Difference between "Tools" and "Technologies"

SUMMARY

Think about the relationships we have to our communication and information tools, not just through our tools.

Have we gone too far distinguishing knowledge work from manual labor, so that we disconnect knowledge workers from the tools of their trade—and in doing so disrupt their sense of identity?

There is an affective connection between individuals and their tools that is vital to maintain both the productivity and the passion of knowledge work.

But there is also a distinction between "tools" and "technologies" that is often missed in the modern workplace.

"Technologies" are systems imposed by the organization that often constrain, disempower and depersonalize knowledge work.

"Tools" are extensions of our hands, as much as the hammers or knives of traditional work. They reinforce ownership, craftsmanship, stewardship and professional identity.

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By Steve Barth

After leading a 2002 workshop at the KnowledgeNets conference in New York, I had a fascinating conversation with Dr. Boyd Hendriks. Boyd is editor of the Dutch Journal *Informatie Professional* and leads his own company Informationland.

Lately Boyd has been looking for the soul of the virtual organization—the passion that transforms a company into a culture even when its leaders are transient, its laborers are outsourced and its core middle managers work remotely from home offices and hotel rooms.

We began by talking about the things that hold the organization together: things like identity, loyalty, enthusiasm, belonging and exclusion. One of the themes Boyd feels is critical to the success of such extended enterprises is how the individual is supplied with tools that help him or her feel both productive and connected even when not physically in the office.

It got me thinking about the affective relationship between individuals and their tools that I hadn't considered before. While the information and communication tools that we use are vital to maintain our productivity, they also have a lot to do with maintaining our passion.

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Tools, not Technologies

Is it possible that one of the biggest problems with IT is simply the word we choose? We tend to use the "tools" and "technologies" interchangeably. But technology is a very general label, while *tools* is not just more specific, but very personal.

It feels a little funny to think about it this way. But there's no doubt that we have favorite tools. And you can extend tools to software and infrastructures, interfaces and access.

I suspect that if knowledge workers see themselves as using technology, then something is wrong.

Think about the most effective knowledge sharing machines yet devised: the water cooler and the coffee machine. Nobody thinks of the coffee machine as technology—not even those computerized espresso machines that automatically grind, brew, cream and clean perfect cups at the push of a single button.

It's more obvious in retrospect. If there are stone knives and arrowheads in the ground at my feet, they are barely discernable from the rocks around them. But to their original owners, they were cherished possessions because of the difference they made in that person's work and life. In fact, the

Stone Age, Bronze Age and Iron Age derive their identities from the materials and technologies used to make the tools that improved life for our ancestors.

> **Think about carpenters and their tool belts or auto mechanics and their tool boxes. When people have tools, they take care of them. They get possessive and refuse to loan them out. They take pride in using them skillfully, becoming craftsmen in the process. Their tools become tokens, totems or even talismans of their professional identities as individuals and as communities.**

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How many of us think of our information and communication tools this way? How many of us think of ourselves as craftsmen in terms of how we use e-mail or search engines?

Satisfaction: Bonding with our Machines

These are irrational, emotional sentiments but they won't go away, so we might as well turn them to our advantage. We all have favorite clothes; we all develop relationships with our cars. Finding tools that meet our expectations is as difficult—though certainly not as important—as finding individuals who meet our expectations. But when it happens, we do become attached to material things.

Looking at the objects around me, I have to admit my tools are part of my identity as a knowledge worker. My satisfaction with tools—the right pen, my laptop sometimes, my cell phone maybe—when they do exactly what I need them to do, reinforce my identity

as a journalist. It is aggravating if I want to capture a thought or a conversation and I don't have my digital recorder. It's infuriating when the index of my desktop search tool gets corrupted and I can't find things. There is an emotional bond between myself and the tool that takes us across the membrane from technology to anthropology.

Can you design and provide tools that accomplish that for a group of employees? By and large the telephone works for all of us, so we use it to link together. E-mail works for us almost as well and it binds us together. In some communities a chat room does this, or instant messaging or presence indicators. When we think about knowledge repositories and collaboration spaces, maybe that is the kind of usefulness that we have to deliver in order to create those kinds of satisfied, proprietary feelings. Personalization alone does not guarantee either satisfaction or ownership.

Ownership: Personal, not Personalized

It's this proprietary, personal relationship with the tools that creates an emotional bond. If your community of practice depends on tools, which is almost every knowledge worker community, then maybe you should think about offering tools that can on one hand be proprietary to the user—not just personalized—and yet connect these individual users to each other in a way that provides one more element of satisfaction.

Vendors are always trying to use personalization to brand their technologies with the word "my." But personalized is not the same as personal. We have no sense of ownership or stewardship for the technology. If a tool is useful, it's "my tool." Otherwise we think of them as 'the system' imposed on us by management.

I know a woman who works from home for a large American corporation. They provide her with a laptop, on which she is expected to do company

business at all hours. But she can only use it for business, and fears she would be fired for violating that policy. She can't surf the Web on her own time. She can't take a course. She can't load her own software. She can't write letters to friends. The laptop becomes a burden and a liability.

How many of us have to deal with these kinds of rules in terms of how we use Outlook or Notes? How often are we threatened with random deletions from our network folders?

Identity: We are our Tools

As a worker, if I believe in my work, if I enjoy it and am passionate about it, then very often the thing that gets in the way of doing my work is the company. All we ever see are the layers of bureaucracy and politics and emotional abuse and technological incompetence that are standing between me and doing my job.

As a worker, if I want to talk to a particular colleague, even if that person is on the other side of the planet, I don't want to be conscious of the fact that I am going through the system—some giant machine between me and that person.

If this tool is provided for me by the company, then this is the company to me. If I am satisfied with this tool, and if the rest of the company makes itself invisible, then my satisfaction with the tool becomes my satisfaction with the company.

I'm not saying that tools are as important as people in forming our passions on the job, but I think we have overlooked the traditional, anthropological place that these typically physical objects have played in the past and how they add to our sense of comfort, identity and safety.

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