The Messy Desk

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If ideas within this paper are used, please reference it.

A thought train relative to the human-computer interaction has been rumbling through the night of my brain for some time: "The user's experience." Note "**user's**." My point here is that what needs to be the focus of future systems is the user's experience. We often hear about the "user experience." That is quite another matter. A user experience is what has been plotted and scripted for the user. In the future this simply won't be the case. Kevin Kelly's video *Predicting the next 5,000 days of the web* (http://www.youtube.com/watch?v=yDYCf4ONh5M) reinforced my thinking. He considers the Internet as one big machine that we have portals into. The user controls his or her portal. The experience is personalized. To paraphrase, It's the users' experience, stupid.

Consider Apple Computer. It does not use focus groups as does Microsoft. It brings together creative user-oriented people to work out a new product. The technical folks then have to meet whatever requirements have been set up to allow the user to have an engaging experience. Apple cares little for content. That is not what it is about. It cares about creating a user's experience such that the user uses content, including applications. The iPhone looks and feels "cool," as does the iPad. The user's experience is paramount. 90% of those successes were guaranteed by those impressions.

The existing standards for elearning have not been wildly successful. Can we consider another approach that reflects concerns about the absence of real implementers from the requirements development process? What about the real end users? I suggest that one should ignore technical issues for now and work on what the user's experience should be. What is the new vision of the user's experience? I shall propose a different approach. What if a brand new interaction/experience model were developed as a standard, conceptually equivalent to a new platform? "Wait" you say, "Learning, Education and Training System Interoperability is about technical enabling standards." Should it be? Maybe we have the cart and horse mixed up. In the online learning world the winners are BlackBoard, Moodle and such. These create predictable experiences for the user. The user may have some minimal ability to modify the experience, but it is pretty much set. These are tired old models; but they are oriented toward the user.

Content is cheap, if not free. If your content is expensive, in the world of tomorrow someone will just go elsewhere to get it. So let's not start there. What will be valuable is the user's experience. Let us consider a radically different approach. This interests me as an experimental psychologist. A new user experience-oriented system would have a good framework that could be mapped to different platforms. It would allow the user to structure the experience. The user would have the **locus of control**. Some time ago a study was done on the desks of various people. This research is discussed in *A Perfect Mess: The Hidden Benefits of Disorder* by Eric Abrahamson and David Freedman (Little, Brown & Co., 2006). Generally, peoples' desks are "messy." There is a clear area about 18 inches square in front of the person. That is where the current work is done. Surrounding this are piles of papers, books and such. The closer to the work area, the more immediate the use. Things farther away are older. Items in file drawers are no longer in active use. The stacks were not uniform. A

change in orientation signals some change in the documents' focus. Notes might stick out. The desktop was almost useless for anyone else. The significant point is that the person has structured the workspace to fit his or her own needs. It is highly personal. This has been referred to as the **messy desk**. People know where things are on their desks because they put them there. People can't find things easily on someone else's messy desk—but should they need to?

How might this map to a technological environment? I have noticed that young workers often don't have desks that are messy with paper. They have coffee cups, snacks, toys and such. Physical items. I have asked some if they would show how many windows they had open on their computers—the first question they asked was, Are you counting tabs, too? The first person I talked to started counting as he revealed the various windows of documents, programming tools, references, browsers and so forth. He stopped at 28, which he estimated as about one half of all of his windows. He had forgotten about some of them. Young people have moved the messy desk onto the screen. But it is still there. It is a very personalized world. I watched people in a corporation try to work out the "best" workspace for its online products. Opinions varied. I was struck by how much the canned interface is counter to how humans work. We like to arrange our own twigs in our own nests, thank you very much. We can maintain a complex mental map when we make it ourselves. Premade maps are simple, being a lowest common denominator.

I set as a challenge to myself developing a new concept for the user's experience. I started from the messy desk because it is so personal. Certainly there other models. The point is, let us think about what online instruction really needs in order to take off in a unified fashion with good reuse. [This model goes beyond education. We are all learning.]
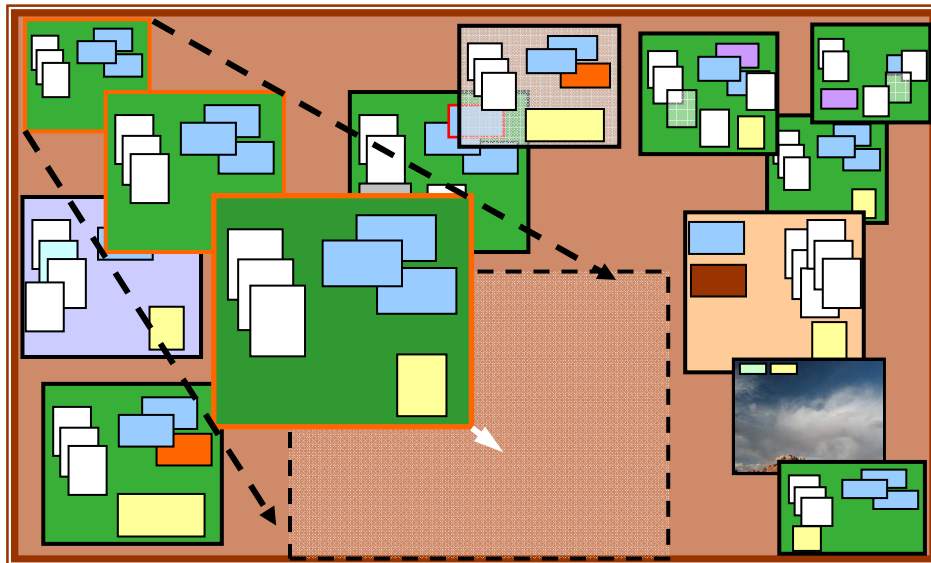

Figure 1. The messy desk

Consider a screen as a workspace (Figure 1) with **trays**. Each tray is a **context**. Each tray contains the documents, tools, applications, chat rooms, browser windows, sticky notes and so forth for that project. The stacks of documents in a tray may have tabs—you get the idea. The farther away from the central work area the smaller are the tray and its contents. But it is still recognizable by its pattern. You select a tray with your cursor and drag it toward the work area. As you do, the tray and its contents get larger. The user may just want to peak into it to remind himself of what it is, or wants to see if there are any new messages there. Perhaps the user wants to expand the tray to the

full screen. Perhaps pick up a document. These actions reflect the focus of attention. The user may have the same application and/or documents in several trays. A tray could be a "world." All of this would push technology really hard. Good. It works for Apple.

The point of the messy desk model is that the user creates his or her own environment. There is an expectation about how that environment will behave. There is an expectation of how it will be represented on different platforms. *Messy* may equate to *busy*.

A standard that defined the properties and behavior of the interface that supported user's experiences would be the equivalent of the iPad or Windows. It would differ from those in that it would have behaviors. The vendor would add value by creating educational experiences that would mold to the user's workspace. Trays may have interrelated behaviors. I don't claim to have worked out a full model.

Can a standard for a new user environment be developed? I don't know. It would be difficult to get agreement and adoption. Perhaps enterprises would be excited by the idea, willing to contribute resources. Technology would take the back seat. From a developer's standpoint, knowing that content—or whatever—would play out in a consistent environment gives a lot of freedom to both develop modular content and to craft experiences. It has been said that constraints drive creativity. To get an idea of what could be done think of what a game developer could do with this. Clearly developers must be able to put different skins on the workspace. But equally clearly, the uniform interfaces of Blackboard, Moodle and Windows indicate that standardizing an interface is a not bad thing. What I am proposing is some new formulation of an interface enabling richer users' experiences.

The messy desk model is intended to provide a rubric for talking about what could be done. Again, one should think of the **user's experience**. My primary point is a question: Are standards focusing on something that will result in more widespread—and better—online learning?