It's All in the Design:
Dr. Stan Ruecker, post-doctoral researcher at the University of Alberta

By Zachary Devereaux, Research Profile Project

Stan Ruecker's academic career has been a storied one. His explanation of the degrees he currently holds gives an idea of the modern diversity possible within a Humanities-focused education. "I'm a Killam postdoctoral research fellow in the Humanities Computing program in the Faculty of Arts. I'm originally from Saskatchewan, but I've been all over the place. I have five degrees now. I did both my Bachelor's degrees at the University of Regina, I did an honours degree in English and a BSc in Computing Science. And then I did an MA in English at the University of Toronto, and now here at the University of Alberta I've done a Master's in Design in Visual Communication and Design, and finally to bring it all together I did an Interdisciplinary Ph D in the departments of English and Art and Design. I was doing a project on computer interface design theory, and my degree has a specialization in Humanities Computing."

Five degrees is nothing to scoff at, but as computer interfaces advance and become an ever more present part of our lives, text, and most everything about text, is changing. The computer screen seems to be an almost natural extension of our daily environment, but human computer interaction is an essentially constructed process. Stan's research focuses on our exploration of the digital environment, building on psychological theories about our exploration of the physical environment. "An affordance is a perception of the opportunity for action in your environment. The question is, how do we perceive those, how do we think about them, and can we create new ones? Some members of the computing science community say: 'Well, that's alright in the real world but does it really hold true in the digital world?' And in fact when we start looking into the literature we learn, that well, when you're born you sort of wave your hands and suck and then you work your way up… eventually you can operate an electron microscope and you win a Nobel prize. You get more opportunities for action as you go through inculturation. So we start to think: 'We can set up aspects of computer interfaces that create opportunities for action.' And to me that is distinct from creating functionality, because functionality is telic."

Stan Ruecker, a Killam postdoctoral research fellow, Humanities Computing, University of Alberta

"Telic" means 'goal oriented,' and few people would argue that they always know exactly what they want and how to get it when they turn on a computer, go to a library, or explore the internet. "So we need to have the sense of people being thrown into an environment and then figuring it out as they go. Making use of the things that come to hand. What's ready to

hand, that's what I'll use. You do the next thing around you. And only if that falls apart, if that doesn't work out, then you step back and say 'we need to do some planning here.'"

For Stan the concepts of opportunity for action and affordance are of special interest to computing design, and he works to put these concepts into action for research communities. "What I consider an absolutely key feature of this whole affordances idea, is this: as a designer I don't necessarily know the things that people are going to want to do. And the classic example is the knife. The function of the knife is to cut, and if you are designing that all you come out with is a sharp edge. But the affordances of a knife are all over the place. I might use it to poke instead of cutting. I might use the back edge of it as a straight edge, so that I'm drawing a line. I might use the handle of the knife as a hammer. I might reflect light with it into somebody's eyes to irritate them. I can invent all kinds of things to do with it once you give me the knife. But when I was working as a computing scientist I used think 'oh, to cut.' And then I would invent just the cutting function. But what I've done is I've impoverished the opportunities for people in that environment. Whereas if I think 'oh, opportunities for action and affordances instead of functions' maybe I want to come out with something that is the digital equivalent of the swiss army knife. It's got all kinds of thing in there. My swiss army knife has a little gadget for poking, and who knows, they didn't think 'oh, we know Stan is going to want to poke this particular thing' they just thought 'ah, it's a good idea to be able to poke!' When I've got that thing I can poke anything I want to poke."

With his qualifications and the wave of digitization sweeping academia, Stan is in demand and involved in several projects. These range from the Text Analysis Portal (TAPoR), a cross-Canada humanities computing project, and the associated Experimental Reading Workshop through to the Orlando project, an interactive history of women's writing in the British Isles. Even with all this on the go, Stan still has plenty of ambition, explaining, "What I am really trying to do is to set up a 'Communication and Information Design Research Institute' here at the U of A." Obviously opportunities for action and affordance are concepts that Dr. Stan Ruecker not only studies, but puts into effect.

LINKS:

Text Analysis Portal (TAPoR) : http://tapor.ualberta.ca

The Orlando Project : http://www.ualberta.ca/ORLANDO/

The Experimental Reading Workshop : http://tapor.ualberta.ca/~erw/