

Cognitopia Cuts Cognitive Curbs

by Ross R. Heintzkill

Consider the curb. It keeps water and vehicles where they belong: on the street and off the sidewalk. But consider also that a curb can be great at keeping something else off the sidewalk: people who might struggle to get up it. Strollers, wheelchairs or leg casts can make those six inches pretty challenging.

As a metaphor, curbs illustrate stuff that can be ignored by some people — yet can be an unnecessary challenge for others. So thinks Tom Keating, the CEO of a Eugene-based software company called Cognitopia, when he talks about the work he and his team are doing. “What we’re doing is a form of cognitive curb cut,” he said. “It’s not a ramp for the physical world or environment, it’s access to the information environment. And that’s just as important.”

Because what Keating and Cognitopia are doing is making software for people who have autism and cognitive disabilities. Living alone or making decisions for oneself can be challenging to start with, and there are a bunch of “curbs” that some of us don’t notice. The world was improved when we started making sidewalks accessible. Would it be so hard to install curb cuts throughout our cognitive world?

Keating — a University of Oregon alum — and his team — largely made up of UO alum — thinks not. Keating, PhD, draws on more than his graduate and post-graduate time in Special Education to develop his software: Keating’s brother who had autism moved from New York to Eugene in 1981, and Keating became his primary caretaker. But there was always one objective for his brother: as much independence as he wanted.

To that end, Keating’s early work was installing motion sensors throughout his brother’s apartment and developing software to log where he spent his time. Seems counter-intuitive, doesn’t it? Keating’s words in a reflective essay about his brother show his thinking:

“Scary right? But it’s funny how it’s worked out. Something that looks at first glance as though it would be intrusive actually functions paradoxically to enhance independence. James likes having his own space and not having his pain-in-the-butt brother checking up on him in person all the time. I now have enormous peace of mind in knowing whether or not he’s home at night, how he’s sleeping, what kind of hours he’s keeping, whether he’s spending inordinate amounts of time in bed or in the bathroom, and whether he’s carrying out key personal care routines like showering.”

But Cognitopia is not about home surveillance. Cognitopia is a suite of software applications that all try to help, in one way or another, train someone to live independently. You could think of Cognitopia’s software like a scaffolding: help people make decisions on their own without being overly intrusive.

That scaffolding comes in the form of several different apps. One helps build checklists for tasks and track when they’re accomplished. Another gathers and contextualizes data about successes and challenges — helping link a student’s goals and milestones with their progress during interviews. It can even help someone upload a video to their resume explaining what parts of a job they find difficult so an employer can accommodate.

So that's Cognitopia's *raison d'être*. But they're still a for-profit business. Currently it's national grants that pave the way for them, but Cognitopia's future lies in packaging their apps together into one suite and selling them all as a service — that's “Software-as-a-Service” (SaaS) in the business world.

So the challenge for Keating and his team is twofold: they have to make an excellent suite of applications to enable independent living for people with autism, but they also have to market it and design it to be appealing in the commercial world. Fortunately those objectives don't have to be mutually exclusive. By teaming up with education and assisted-living training programs, Cognitopia is learning how to design apps that appease different processes, bureaucracies, standards and institutions.

And the partnerships become mutually beneficial. There's the education and training program out of the University of Nevada, Las Vegas that uses it to help students “job shadow” and make reminders about tasks that might be forgotten or overlooked. Or Eugene's school district, using it to create checklists about cooking, supplemented by YouTube videos about how to julienne cut peppers.

Or Smart Living, Learning & Earning with Autism — founded by Sherry Sandreth and co-directed by yet another University of Oregon alum Michele Smith — who use it not only to monitor where students are struggling with aspects of living alone for their first time, but also to make and share funny Monty Python-inspired videos about vacuuming.

The programs get a responsive software suite they can request updates and modifications to. Cognitopia gets first-hand understanding of not just what work, but what's desired. Remember the wars between Microsoft and Apple throughout the 2000s? The winner usually wasn't the one with the best-functioning product, but the most pleasing one. Keating explains his and his team's hopes that marrying those two will be a recipe for success, “The little secret at the heart of it all is that everyone likes it -- you don't need a cognitive disability to appreciate the simplicity that comes with having an icon that immediately indicates purpose.”

Some of us barely notice missing curb cuts as we step up those six inches, but intersections without them can be upsetting and even perilous for some. Similarly, our society has barriers that are invisible to some, but make living independently difficult for others. Companies like Cognitopia, organizations like SLLEA and UNLV, alum like Tom Keating, Eric Smith, Julie Henning and Michele Smith are all building curb cuts to those cognitive sidewalks. And one thing we can all do to help them is start noticing when they're missing.