THE SCIENCE OF *THINKING*

Luc Beaudoin studies the mind

By Phil Melnychuk

Parents should set definite, clear limits when it comes to the amount of time their kids spend on cellphones or computers or games, if only because of the possible loss of sleep that's linked with being online for hours, says Luc Beaudoin.

He can give the advice because he knows something about the field after making a career out of studying the mind.

The South Bonson resident in Pitt Meadows has a doctorate in cognitive science from the University of Birmingham, and is currently a research professor at Simon Fraser University.

After academia, he ventured into the private sector, becoming a co-founder of Tundra Semiconductor and the first employee of Abatis Systems Corp.

It was while he was at Abatis that he stumbled on to a question for which he's been seeking answers ever since.
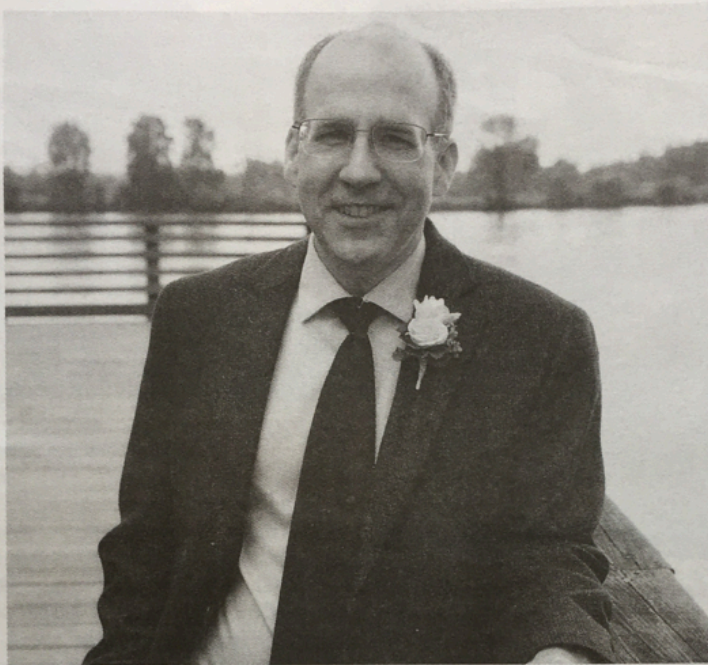
Despite all the latest computer devices that people use in their work, what would it take for knowledge workers to better learn from, and work with the computers and technology that they use?

What would it take for tech workers to be able to better learn on screen without needing to read print?

He formed his own company in 2010 called CogZest and started developing products to enhance "cognitive productivity."

He eventually wrote an e-book by the same name, Cognitive Productivity: Using Knowledge to Become Profoundly Effective.

One of his main quests is how can knowledge workers convert external information into personal knowledge.

"I began designing products to optimize learning, mastery and remembering; products that leveraged the best of cognitive science and technology," Beaudoin says in an autobiography on his web page.

One technique is to try to carry the study skills and test-writing skills that people use in school into the work world. For example, writing practice exams in preparation for the real thing is a good way of learning what is most important when processing reams of materials. That technique can be employed in the work setting.

"People don't tend to do that after graduating."

What separates the best students from rest is that they know what they don't know, he adds.

The field of cognitive science is "the study of the mind and its processes, including consciousness, language, learning, information processing, and decision making," according to SFU, is entrancing, and can lead in dozens of directions, from artificial intelligence, learning effectiveness, even to sleep, which is the focus of his latest invention.

The focus isn't only on becoming more productive on the job, it's about becoming a better human being, Beaudoin points out.

Two years ago, he launched the *mySleepButton* app. It's based on the theory that in the moments before someone falls asleep, their thoughts become random and more leisurely, allowing sleep to take hold. The way to speed up that process, thanks to *mySleepButton*, is to listen to random words and phrases that present different images in the brain. For example, in the demonstration online application, a voice reads out different words to create those images. He calls it the cognitive shuffle.

"Close your eyes and imagine the following: a baby, greeting a loved one at the airport, a canoe, playing golf, holding a paper cup, arriving at a beachside hotel …

"This will keep your mind off your concerns and into a state that is wonderfully conducive to sleep … It's that simple," Beaudoin says on his website. So far, there have been 50,000 downloads of the app.

"If we can design software that's tailored for the human mind, we can really make a difference in people's minds."

He's working on another app that will change how people process information. "If I'm right, it's going to be an app that's most knowledge workers will want to use."

Beaudoin lives in south Pitt Meadows, his home since 2011, and is no fan of the city's plans for continuing to allow expansion of business parks. He describes April's chopping of dozens of trees near the Fraser River at the Pitt Meadows Regional Airport for flight safety reasons as "overkill" and talked to the mayor, MLA and MP about it.

But back to the issue of computers and kids.

"You just can't give kids [technology] without regulating it. You need rules, lots of rules."

Luc Beaudoin is a research professor at Simon Fraser University.

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