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Mapping the Dynamic Brain

An interview with Professor Lara Boyd
Stroke Researcher, University of British Columbia

How can we change our brains?

What we've started to learn, or learned in the last 10-15 years, is that the brain is this amazingly dynamic structure. Everything you do changes your brain. When you're done watching this today, your brain is not the same as when you started. And so in beginning to understand that amount of change, we've been able to drill down and start to see what parts of the brain change, what changes them, and why. And that's really exciting because it opens up a whole new field of discovery for everything from kids learning to school, to people getting better from stroke.

What excites you about your research?

I go to work in the morning because I am absolutely fascinated by this idea that we can change the brain. The brain is who we are and you can flip it on its ear and say we are what our brain is. The best part about that is because the brain changes so much, you can shift it; you can change it. So if you learn new things, you take new opportunities, you start participating in new activities, you're changing who you are. And so it gives us this kind of idea of endless possibility, if you will. The other really exciting thing about that is we didn't know that 20 years ago. So this is relatively new knowledge in science and we are discovering things so quickly about the brain that it's just opening up new fields, new areas of education, new areas of medicine, amazingly quickly.

What does the future hold for your research?

I'm optimistic that we're starting a new cycle of discovery that is going to allow us to develop really effective therapies for people who have had stroke or other kinds of acquired brain damage. Stroke is the third leading cause of death in the world. It's the leading cause of long-term adult disability in the world. And so we are all at significant risk for it, especially as we age. So we need to have better therapies.