How 'Double Vision' Can Be a Good Thing

An Interview with **Doug Crawford**, Neuroscientist, York University
Scientific Director, Vision: Science to Applications (VISTA)

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Doug Crawford

The challenge of vision in this coming century is two-fold. There's the challenge of maintaining healthy visual systems in our aging population. There's the challenge of making use of all these vision-based technologies that we're relying on more and more, even in our cell phones that we walk around with, our smartphones. And what's really interesting to us is how we're going to integrate the technology with the biological side, so that we learn from the biology to make better technologies, but we use the technologies to benefit the human condition, as well.

Richard Wildes

When you're trying to attack a very difficult problem, like how it's possible to "see" - be it a biological system or an artificial system - it's quite useful to bring together multiple complementary perspectives. So it's useful to understand, on the one hand, from my point of view, how we can get computers to see, have a computational point of view. However, in one of my collaborations, I work with a neuroscientist, Doug Crawford, who has a rather different perspective on vision. But you know, for sort of like coming in from two different angles, you might be able to understand things that we couldn't on our own.

Doug Crawford

He and I are currently co-supervising a student who's using computer modeling technologies that Rick has brought in to examine questions that my lab is looking at about brain function. And it's in a very exciting area because when you start bringing ideas and technologies from one field into another, that's often when advances come the most quickly.