

Overcoming human mind

The cybernetic pioneer stretches capabilities of the man's body. Control over people's minds is including.

an interview with professor Kevin Warwick

JAMRIS: How would you describe cybernetics?

It's to do with human and technology linking together. My interest is how they work as a system. When you think of somebody driving a car, you are not interested in the person, you're not interested in the car, but you are interested how it works together. Cybernetics is a whole system: the human and the computer. They can perhaps improve the performance.

J: I've heard that you name yourself "the first cyborg".

Some people say that. It is always difficult to find what it is cyborg and what is not. Some people think because all of our brains change and because technology is changing, we are all cyborgs. My believe in it is not like the science-fiction cyborg. Integrated technology is a part of the person and is also enhancing – giving you extra abilities.

I have a chip in my arm, implanted on unhaired skin. As far as I am aware yes, I am the first cyborg.

J: What this implant in your arm can do?

It links my nervous system to the computer and then to the Internet, so literally electrically linking my brain to the computer.

J: Second Kevin Warwick?

I don't think so. Not the second Kevin Warwick, but an extended Kevin Warwick. Certainly increasing abilities, because my brain signal is not just going then to move my hands and legs, but to go on to the Internet and control technology, whenever the Internet is connected to. In one experiment we did on me in New York, we have sent my nervous system via the Internet and to the robot's hand, back in England. So, my brain was able to directly move a robot hand on the different continent. The Internet was extension of my nervous system.

J: Sounds unimaginable.

It is difficult to imagine, because even Hollywood does not go with that. You have heard about Arnold Schwarzenegger and that's it. The fact that Arnold Schwarzenegger is not just here, but in different places, is difficult for people to understand. However, it is quite simple, that the nervous system is like electrical wires, a sort of. And if you plug in another electrical wire, you can extend the nervous system wherever, just like you run a light.

J: It's like travelling over the world?

You can travel over the world even by satellite, you can send your brain signals by satellite to another country... and your brain signal will be able to travel by network into my brain. And my brain signal will be able to travel by network into your brain.

J: So, words are useless?

I think speech will be something from the past.

It's pretty pathetic way of communication. When you actually look at what we doing I'm sure everybody has fantastic ideas, images, thoughts, abstracts, concepts and imagination in the electrochemical signals. If I try to relay some of that to you, what am I doing? I am talking in serial little precious way, to give you some of ideas what I am thinking about. Nothing like you can. I can imagine a very attractive man, let's say, and you can think to imagine him, but it will be very different from my imagination. But if I could send signals of what it is, I imagine to you directly. There're possibilities. Communication in the future is not the speech, but intensity of colour, intensity of image of multidimensional thoughts, concepts and abstract ideas. We can communicate those in the future, it's so exciting, it's tremendous!

J: But in human mind we can find not only beautiful things. Sometimes we can be scared of people thoughts.

(laughs) Exactly, they're not only positive things in communication.



Kevin and Irena Warwick use an extraordinary way of communication



J: But how you overcome cultural and language differences. Usually we think in our native languages. Polish language forces a speaker to define e.g. sex of the object of the sentence. English does not. In Hungarian, Finnish or Chinese - as far as I know - one can report about a creature only.

It doesn't matter in what language, as a human what you do is convert your electrochemical thoughts into mechanical movements (your mouth or your hand), that is how the signals are transmitted to another person. But why to move your mouth or hands - why not simply send the signals directly from your brain to the brain of another? That is what we are doing in our research. That is what my wife and I became the first humans to do. If now you send signals from one brain to another we do not need to restrict the communication to serial bursts of pressure changes (speech) - we can communicate in parallel, in colour, in abstractions etc. I do not believe that we "think" in a language - otherwise a Chinese baby born in a Brazilian household would speak Chinese - it doesn't, it speaks Brazilian.

J: I've heard that you cooperate with an anthropologist.

She is like a devil on my shoulder. She doesn't say this is negative, but she wonders what this means for the society,

how will it change it, and what this could mean in the future. We will not speak good things or bad things, but because they will mean something different for the people, and the reality comes not only to positive thoughts, but potentially negative thoughts, or even potentially dangerous or enormous.

J: And control like science-fiction stories.

If your brain is connected with somebody else's brain I can hack in, I can start sending signals to your brain and I can control you, if I want to, and you won't even realize what's happening.

Warsaw, 13th April 2007

Kevin Warwick is the professor of Cybernetics at the University of Reading, UK, where he carries out research in artificial intelligence, control, robotics and biomedical engineering. He is also Director of the University KTP Centre and in 2002 he was chosen by the IEE as one of the top 10 UK Electrical Engineers. He also received the EPSRC Millennium Award (2000) and is the youngest ever Fellow of the City and Guilds of London Institute.

Warwick has produced over 400 publications on his research including more than 90 refereed journal articles and 25 books. His work is now used as material in several advanced Level Physics courses in the UK and in many University courses including Harvard, Stanford, MIT & Tokyo. His implants are on display in the Science Museums in London and Naples.

Based on information available at:
www.kevinwarwick.com

