

Brain-machine interfaces: past, present and future

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It's always been a popular issue for crowded, such as "Can human-machine mix be real? ", "Not only empowered human ability without limit, even can lead to immortal?" Through the "upgrade" of information technology recent years, the imagination now is more well-founded. The similar idea had been brought to the big screen such as "the Matrix" and "the Avatar."

However, it's not enough to stay in imagination. Consider the reality, the human-machine mix have to integrate with technologies like biology, medical, machine, information, control and so on to make it real. The blueprint of brain-machine interfaces has been drawn by the science pioneer, Leonardo da Vinci, 500 years ago. It seems that the senior scientist is also eager to empower himself by a flying machine, simulated the flapping of bird's wings. The technology at that time may not accomplish his design, but 500 years later, we can actually buy the flying machine base on his design in science toy store now!

The technology nowadays makes a great progress on many different field that make brain-machine interfaces more likely to become a reality. In toy store, you can also buy a fake "Cat ears", combined with machine, information, and brain science. You can pretend to be a cat boy by putting on these cute cat ears and make them move up and down by your brainwave. Brainwave toys as a bridge for us to enter the virtual world of video games and knock down monsters only use our "mind power."

These kinds of wearable devices are not only treated like toy but also turned into medical devices that even Leonardo da Vinci hadn't imagined. When your bio-data uploaded to cloud server in real time, that means your body and cloud system is mixed. Cloud system can adjust your mind-body health and even prolong your life. Only through real-time heartbeat detection and progressed algorithm, we can calculate the life expectancy of a health human. For hospitalized patients, we can also predict those who are so sick that their days are numbered. On the other hand, if we can predict life and death, we certainly have chance to make changes at the early stage to delay or even avoid the tragedy.

The science and techniques of brain-machine interfaces are still in the process of development. The technology, inherited from the ancient, is emerging now, need you and me to take part in. Let us enjoy the work, and then utility maximization occurs!