What is the next (r)evolution?

Tony Mobily

am not sure if it's correct to talk about the internet as a revolution. The internet is in fact the result of a slow, hard earned evolution which has lasted about 30 years (!). Slowly, during these years, the costs of laying cables has dropped, the CPU was... well, *invented* (in 1974, the Intel 4004), processing power and memory have increased exponentially and the basic protocols were created (in 1972, the *telnet* protocol).

Maybe, it would be fair to consider the internet a slow, gradual evolution which has caused a sudden, more drastic revolution. The signs that this revolution would take place were all there, and yet I have the feeling that very few people back then would have believed that by the year 2005 the internet would become the most important information infrastructure in the world, with store fronts, credit card fraud, underground peer-to-peer networks, online banking, online repositories for free and non-free software, and so on. But here we are, in the midst of it all, enjoying its benefits and facing newly created problems.

For some reason, I can't stop asking myself: so, what's next? (I can't help it: I imagine a reader of this magazine in about 20 years knowing the answer to my question, but having no way of coming here, back in 2005, and telling me!)

The signs are all here. One thing is becoming faster. Another thing is becoming cheaper. And again something else is becoming more and more advanced. All of this will lead to a sudden, drastic revolution that will change the way we live. But what are these crucial "things"?

I have a few ideas (and this is when my reader in the future starts feeling embarrassed for me, and thinks "please don't, no please don't...).

The most important one in my opinion is a revolution in the interface between us and our computers. The way we interact with computers today is unintuitive, cumbersome, even pathetic, and it will need to change drastically in some way. I think keyboards and mice have long passed their due dates; voice interfaces simply don't cut it - and I don't think they *would* cut it even if they were 100% reliable. (How do you create a complex spreadsheet using just your voice?) A few years ago I was a great believer in VR (Virtual Reality: does anybody still remember it?), and I could have sworn that VR would be it, the future - I was wrong when I thought it back then, and I would be wrong if I said it now, at least considering its current incarnations.

I believe that the next revolution could be in the use of neural interfaces, which will allow us to interact with computers using our brains: no "middle man", no meat involved. (Now, it's time

for our future reader to burst into laughter and start feeling really sorry for me...). What would we "see"? How would we do anything in there? How would we create a complex spreadsheet just using our brain? Would those "neural chips" be able to make us see, hear, touch, and move? I don't know the answer to these questions. It will largely depend upon what the technology will be able to give us, and how. However, I must admit that I am in fact imagining an advanced version of the infamous VR, which I just said had already failed in the *previous paragraph*...

Finally, there is a more important question which begs to be asked: if we do experience a drastic revolution in the way we use computers (neural interfaces, or whatever else might come along), will free software run the risk of being left out of the picture? If there was a patent which demanded thousands of dollars and a signature on a nasty NDA in order to license the technology and create a "neural application", what would free software developers do?

Would IBM come and rescue us again? Your guess is as good as mine.

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