

If You Can't Explain Technology, You're a Slave to It

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Any sufficiently advanced technology is indistinguishable from magic.

– Arthur C Clarke

Last week, a team of hackers demonstrated that it is possible to lace physical DNA with malicious software – when that DNA is tested, the results themselves take over the computer on which they are being analysed. From that point forward, any amount of digital mischief can be performed. The DNA transmission mechanism is a platform, and could be used to host any software, nefarious or not. In theory, you could keep a copy of *Flight Simulator* or the audio of your favourite song in your saliva if you wanted to.

Imagine trying to explain this to some 100 years ago. Where would you even begin? It'd be hard to blame some who just said [it was magic](#).

In the future, there will be magic, and I do not simply mean that there will be advanced technology. As technology becomes increasingly complex, it will become more and more magical – because we will understand it less and less. The few who do understand will be like magicians in our society. Mark Zuckerberg is a prototype of this new breed. The whizz kids of today are the wizards of tomorrow.

Unplugged

As a child, my school friends and I used to joke about what we would do if we could travel centuries back in time, to an age of adventure. Banned from even climbing trees, we would dream of conquest in the age of knights and kings, castles and honour. Adults still entertain these dreams. I've heard many a boast over what someone would do if they could return to previous epochs – “I would run the show”, “take over” and “become emperor” to name a few.

There is a presumption that we are superior in knowledge to our ancestors, that we “know more” than they did. But the truth is, we actually know very little that would help us centuries ago, because we are totally dependent on technology, and only a fragment of the population understand how it works to any meaningful degree.

The few who would stand the best chance of thriving in centuries past are those in the same industries that existed so long ago: like farming, fishing or tailoring. But even these are dominated by technology today which outsources many vital skills that would be necessary to know in times past. No would believe the tall tales you might tell of the future, because you wouldn't be able to explain or create any of the gadgets we now take for granted. Even if you understand the basics of complex systems like the internet, you probably don't know enough about electronics to assemble a computer using materials from the Middle Ages, let alone somehow source electric current in a literally wireless world.

The best way you'd be able to explain the future would be to say simply that we have discovered magic, which lets us fly through the sky and communicate instantaneously across nations. In this scenario, the modern-day time traveller would not become a ruler or sage. We would be the serfs in this scenario – our disconnection from the natural world would disempower us: tilling the land, forging a blade – very few have any experience of this in Britain.

Back to the future

Extrapolate this forward. We have outsourced many tasks in our everyday lives to electronic systems. This spares us time, which allows us to specialise in our endeavours. We have become more and more dependent upon the technologies which allow us to do this.

Where our working knowledge in the past was quite broad, ranging multiple disciplines or trades, it is now exceedingly narrow: the average worker today is often capable in only one area. But this specialisation is dependent on technology – if you take that away, that worker is stranded being unable to do anything other one specific task. This dependence upon technology will continue, as will the specialisation this allows.

It's pretty Orwellian, but you could see this as a response to the threat of artificial intelligence and automation. As low-skill jobs are replaced by machines and computers, the only way of keeping a job is by increasing your abilities beyond their natural levels. And of course, in order to secure your place at work, you will need to make yourself irreplaceable – you will need to

specialise ever further. Amplifying human ability through technology is a trend that will continue to expand in the future – [and one we see as ripe with investing opportunities](#).

Even though education in technology is increasing, the technology itself is evolving faster. Over time, the number of people able to comprehend everything that is going on will shrink as the electronic systems themselves will become exponentially larger. Those that truly grasp all the intricacies of the digital world we will live in will be like magicians: lords over a population of serfs who can only do one incredibly specific task very, very efficiently.

Just as a journey into the past would beggar us, so too it seems, would a journey into the future – just in a different way.

Until next time,

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PS What do you think about the rise of automation in the workforce? Let me know: boaz@southbankresearch.com.