# Why a Platform and Ecosystem may be crucial to your Exponential Future

*By Simon Carpenter, Chief Technology Advisor, SAP Africa*

I've recently been to several presentations on the Digital Economy where I've noticed two common themes (over and above the incessant citations of uber as the poster child of the Digital Economy).

Firstly, speakers have, almost universally, talked about how this 4th Industrial Revolution is different from the previous 3 because it's "dematerialized" and driven by data. True, but there's more to it than that. There is an argument to made that the emerging combination of renewable energy, the Internet (and the multifarious digital technologies this brings with it), rapid advances in Artificial Intelligence and Machine Learning and the concomitant rise of autonomous machines (vehicles, 'bots and algorithms) make this an entirely new and distinct Digital Revolution that is much more profound than, and different to, the 4th phase of something that's being going on since the 1700s.

And it *should* be different because many of the challenges that humanity and our planet face are as a direct result of manifold successes across the three hundred years of the Industrial Revolution; pollution, species loss, urbanisation and climate change being a few examples.  These challenges are unlikely to be solved by simply applying digital technologies to Industrial-era mental, physical, organisational and system architectures.

It's also happening much, much faster than anything before in human history. To quote Klaus

Schwab, Founder and Executive Chairman of the World Economic Forum, "*The speed of current breakthroughs has no historical precedent. When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace*".

To put that into real world context, and leaving aside, if you can, issues of profitability, you have only to contrast the 107 years it took an icon like GM to get to a market cap of US$55 billion during the tail end of the industrial era versus digital era icon Uber's valuation of US$68 billion after just 5.5 years, albeit it untested on a major stock exchange).

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One thing is clear, and that is the Exponential nature of advances in science and technology and of the growth and globalisation of new digital business models are a tectonic shift that creates significant challenges for incumbents and great opportunities for innovators.

The second things I've noticed us that everyone is claiming that *they* are the ones to lead this Digital Transformation even if they only have a small piece of the puzzle. Allied to this is the fact that it's difficult to pin down the "one big thing" to focus on – is IoT or AI or ML or the App economy or Mobile or 'bots or AR & VR?

Surveying the IT industry illustrates this; there are Fintechs, Martechs, IOT, AI, Machine Learning, Robotics, BI, Visualisation, 3D Printing, CyberSecurity, XaaS providers, Digital boutiques and Design Thinking vendors popping up everywhere and at an astonishing pace. They often have great products or solutions and deep insights, albeit in narrow domains, but the problem faced by their customers is how to synthesise all of this into an efficient, effective, manageable, sustainable and governable system?  Because the danger is that, seductive though a point solution may be, and even

though APIs make integration easier, without a systematic approach you wind up with an expensive, risky and fragile mess that, far from supporting your innovation and exponential growth, holds you back.

So, what is the answer?

Well the first thing to acknowledge is that these new technologies have a role to play and it's about extracting the synergies from them in a systemic way that creates real and enduring value. In this regard, there are valuable lessons to be taken from the early days of the Industrial Revolution; the Spinning Jenny revolutionised how cotton yarn was made but it took the subsequent development of the powered loom along with the concomitant development of the sewing machine to turn enhanced textile production into useful garments and the development of steam trains and ships to haul those garments to market. In this case, there was an underlying platform - steam power - that drove these advances.

Tomorrow, the technologies will vastly different and data will be the fuel rather than coal but I'd argue that the concept of a platform remains a crucial part of the architecture for digital success. In their seminal work *Exponential Organisations; why new organisations are ten times better, faster and cheaper than yours (and what to do about it)* Salim Ismail et al identify the fact that "Information Accelerates Everything" as one of the core factors underpinning the success of Exponential Organisations. That being the case you clearly need a platform that enables you to deal with the massive flows of data that underpin the Digital economy. You need to be able to get, store, process, process, protect, share, analyse and integrate data seamlessly into the fabric of your enterprise – a platform approach helps you get that done.

The second thing to acknowledge is that you need an ecosystem. As Peter M. Senge, author of *The Fifth Discipline* and founding chair of the *Society for Organizational Learning (SoL)*, puts it "we live in webs of interdependence."[1]

It's becoming increasingly rare to find any one organisation, let alone individual, who has a monopoly on new ideas or an end-to-end understanding of unsolved problems or the skills and technologies required to build a comprehensive solution. This takes unprecedented levels of collaboration, coordination and trust; in short an ecosystem that shares intent and values and in the rewards, that follow from collaborating to solve problems.

So, whatever you your aspirations towards being Exponential or towards making a better future for humanity, spend some time investigating what platform you will do that on – make sure it's robust, scalable, sustainable, global and open yet secure. And, think hard about the community you need to gather around you to get things done.

With these two essentials in place you are well equipped to become an Exponential Organisation of the calibre lauded by likes of Singularity University and adored by your customers.