The use of technology post Covid

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DIE VERANDERING IN ONDERWYS
THE CHANGE IN EDUCATION

Four questions and maybe some answers:

1. Technology theory?
2. Impact of Covid?
3. New technology?
4. Value proposition?

Seeing that we're doing a mini-MBA...

Q1: Any technology-related *theory* that you can share with me that you use in your school?

*"There is **nothing** so **practical as a good theory**".*

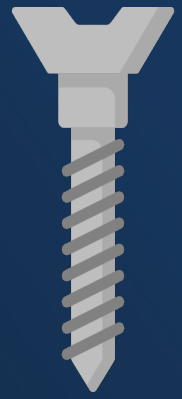
Lewin, 1951

The story of theory

A long long time ago,

in a school not so far away,

there was a knife, a loose screw and a screwdriver…



Two *seminal* theories in Information Systems

Technology acceptance model

What can we control?

Drivers of users' acceptance and usage of new technologies

Innovation diffusion theory

What will we observe?

How different people react when dealing with new technology

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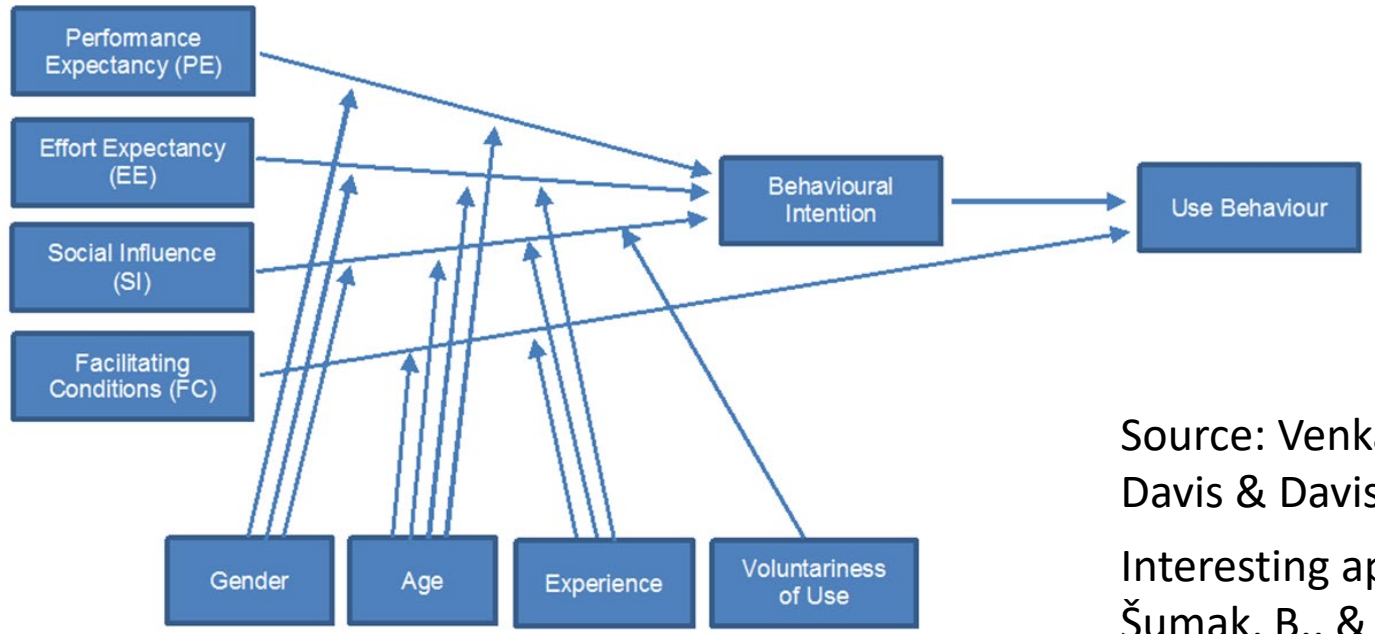
Technology acceptance model

- **Performance expectance:** do I think it will do 'the job' intended well?
- **Effort expectance:** do I think it is easy or difficult to use the technology?
- **Social influence:** do I observe my peers using the technology?
- **Facilitating conditions:** is help available when I need it?

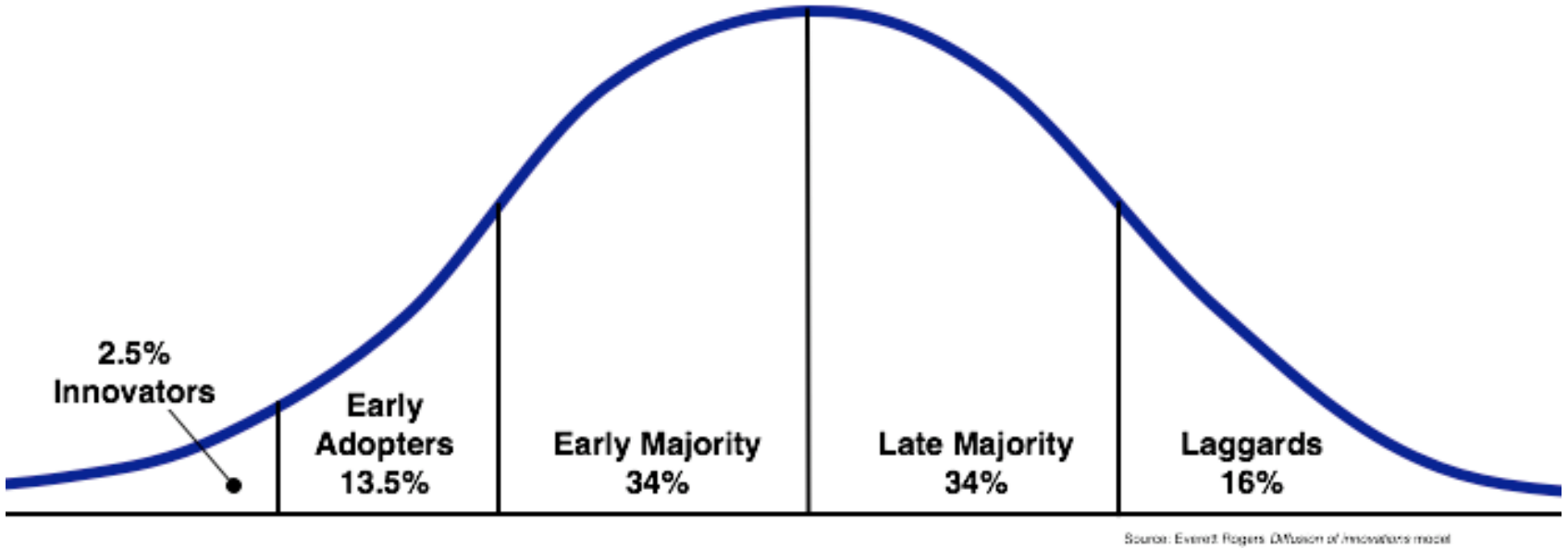


Source: Venkatesh, Morris, Davis & Davis (2003)

Interesting application: Šumak, B., & Šorgo, A. (2016)

Innovation Diffusion Theory

Different users have different appetites for technology diffusion and when new technologies are deployed, it takes time to get every person onboard (unless a pandemic forces their hand?)



Source: Rogers, 1976

Q2: What is different after Covid? Are we doing *different* things or are we merely doing things that were on our horizon in any event?

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Covid impact?

Covid was potentially a *change accelerator,* shrinking the IDT horizontal access if you wish

It created massive awareness of *what is possible*, and in some instances the *desire for change*

Example: The development of different digital intrinsic delivery modes

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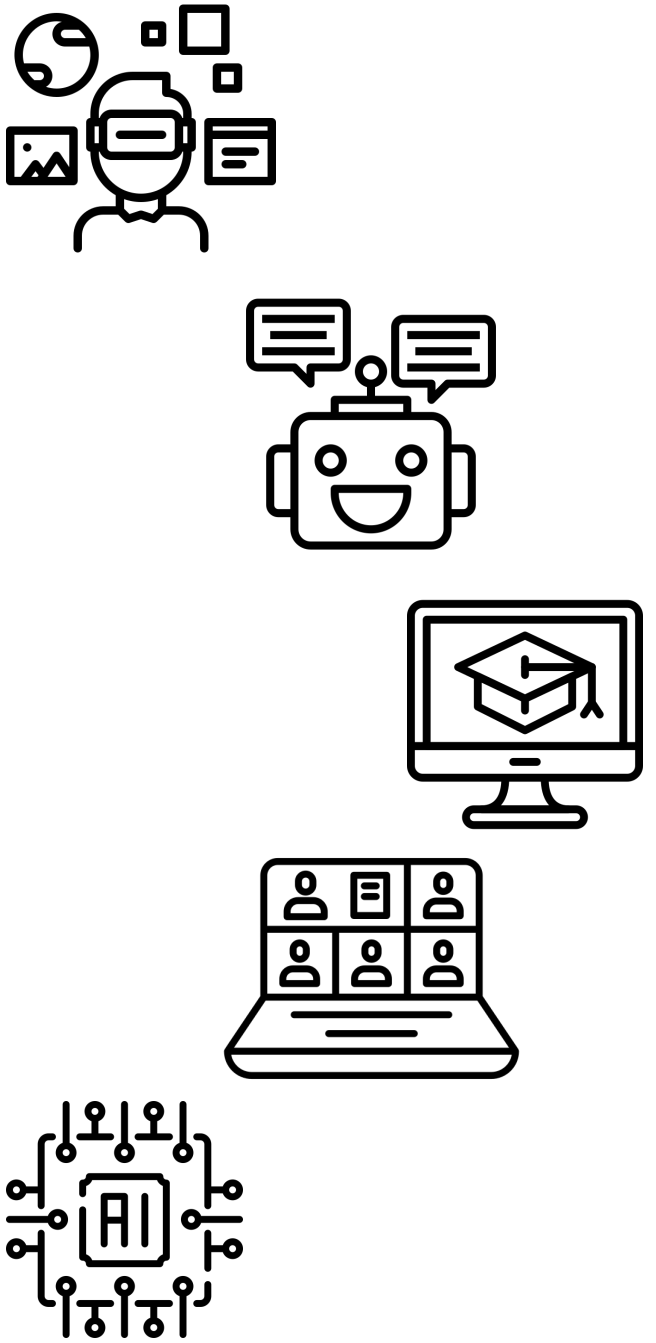
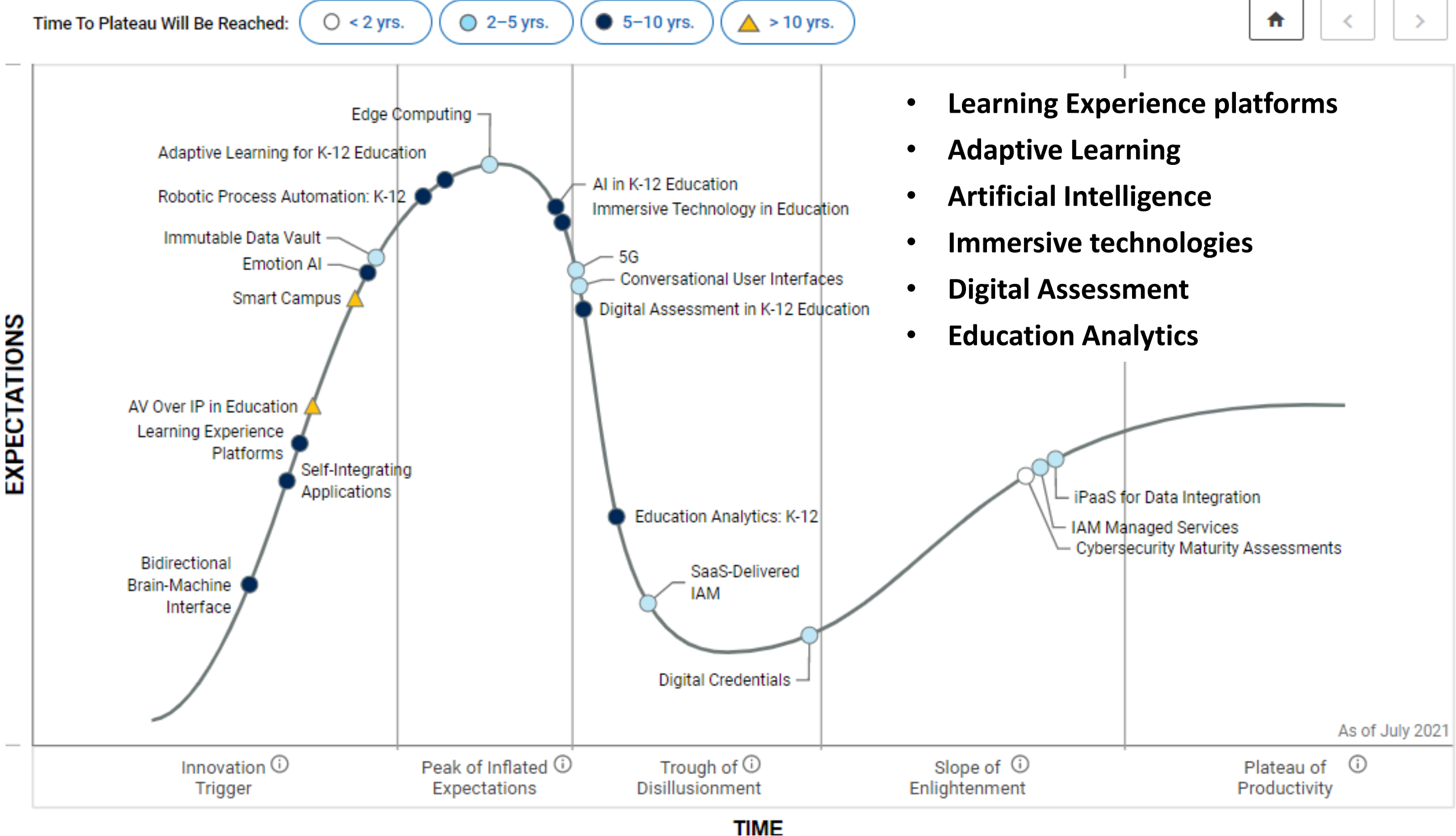
Lasting impact and lessons from Covid

The innovators motto: Fail forward fast

- ✓ Fail forward fast – no failure, no learning
- ✓ Fail forward fast – trying new things, not longing for the past
- ✓ Fail forward fast – no quick failure, no quick learning

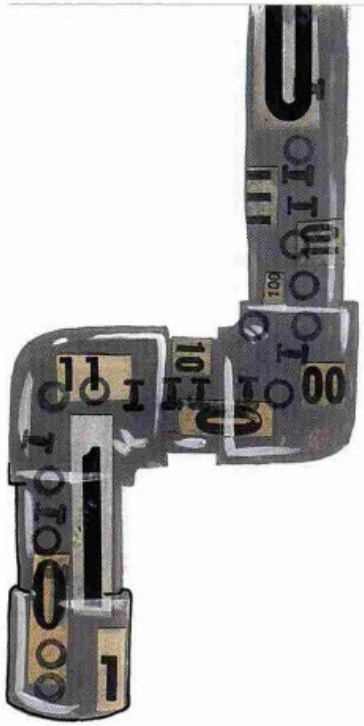
Q3: Any technologies set to ***reshape education***, or in particular, primary and secondary education in SA?





- **Learning Experience platforms**
- **Adaptive Learning**
- **Artificial Intelligence**
- **Immersive technologies**
- **Digital Assessment**
- **Education Analytics**

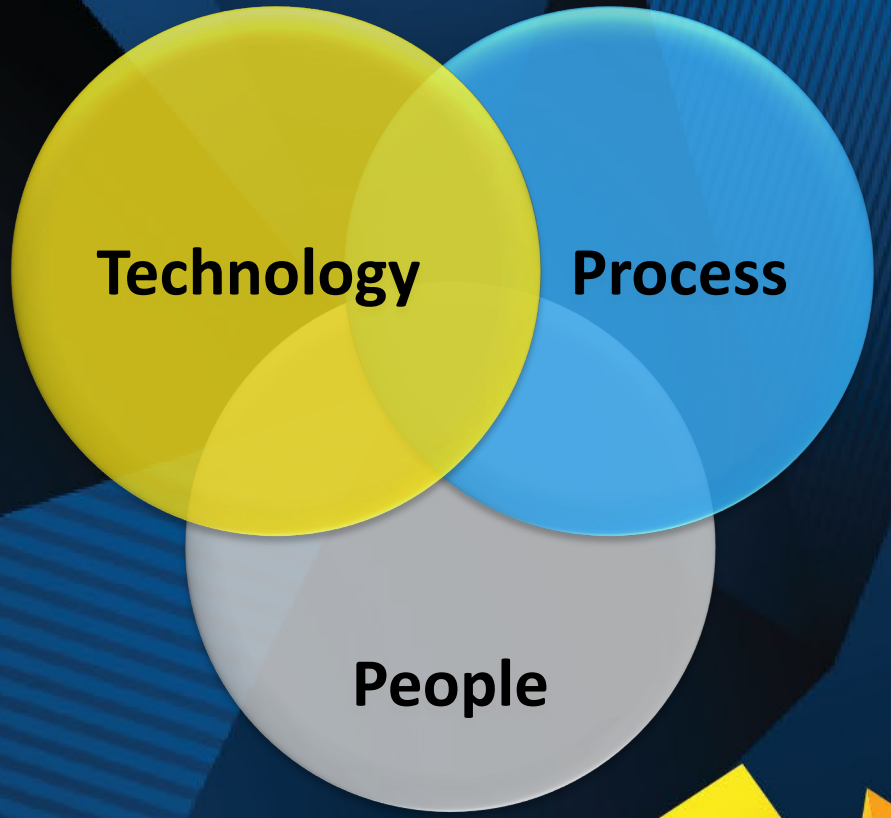
HBR AT LARGE



IT Doesn't Matter

by Nicholas G. Carr

As information technology's power and ubiquity have grown, its strategic importance has diminished. The way you approach IT investment and management will need to change dramatically.



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So, if IT does not matter, why bother at all with technology and why are you wasting our time, Martin?

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Digitise or a Digital Transformation?

Digitise: Conversion of analogue source material into a digital format

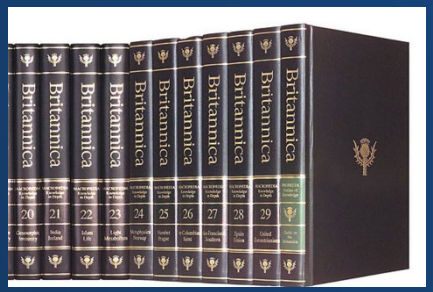
A **CD** is merely a digital version of the LP … you buy an album of music in a physical format with some benefits due to the process

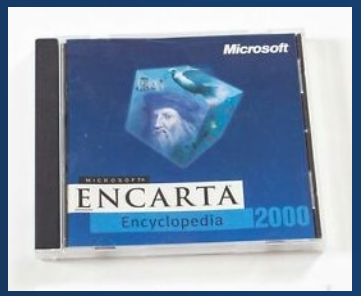
Encarta is a digital encyclopaedia and not a lot more…

Digital transformation: Use of digital technologies to **change business model** and provide new revenue and value-producing opportunities

iTunes is **not** a digital LP or CD - fundamental business model change

Wikipedia is **not** a digital encyclopaedia – it is a **free** knowledge sharing platform that incidentally killed encyclopaedia





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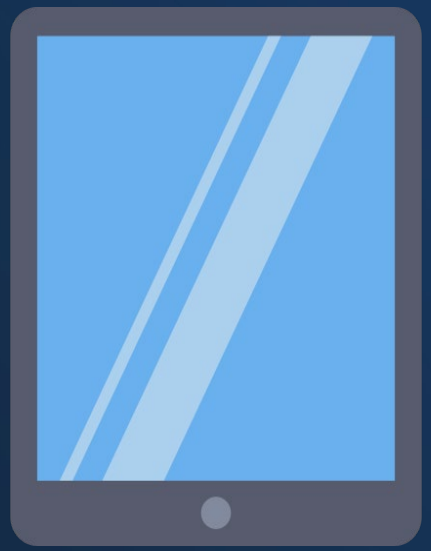
Q4: What is the *value proposition* that we gain from investments in technology?

How do we argue the *'technology business case'* in education?

Asking the correct question(s)

Rolling out tablet computers or cloud computing in out schools

What is the *problem* that we are trying to solve or *opportunity* that we want to exploit?



Hint: The opportunity is never the availability of new technology, never!

The Information Systems Business case

Question 1: Value

- ✓ **Customer value** – does it improve learning?
- ✓ **Operational efficiency** – does it make us more efficient in what we do?
- ✓ **Decision making** – does it improve the ability of the educators and management to make appropriate decisions
- ✓ **Addressing risk** – does it address a specific risk to the learners, educators, school or the school community?

Question 2: Value versus (real and opportunity) Cost

- ✓ **Value add versus cost** - Is the value added (answer to Q1) more than the additional risk, opportunity cost and real cost of the implementation?

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When will you fall in love with technology?

- ✓ When it solves persistent real problems and does not create new problems
- ✓ When you understand the combination of process (how we do things), people (all actors interacting with the technology) and technology
- ✓ When we accept that we do not all react the same when dealing with new technology
- ✓ When we seek for the value inherent in the application and not in the technology itself
- ✓ When we respect theory to guide us in implementation of new technology investments

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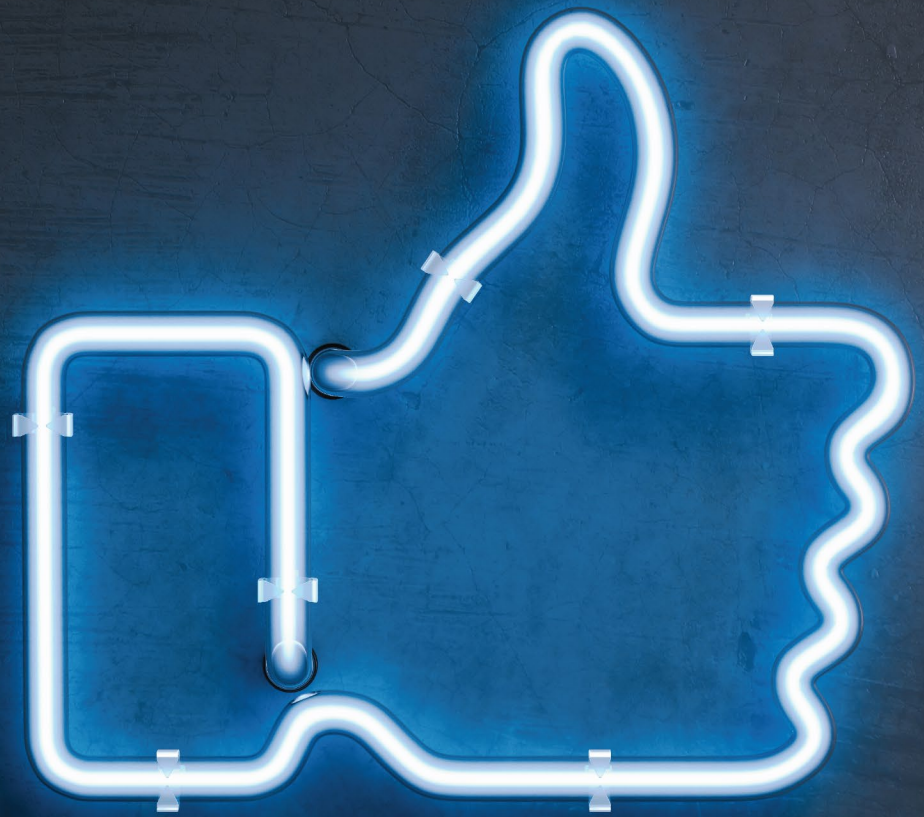
Thank you



Questions

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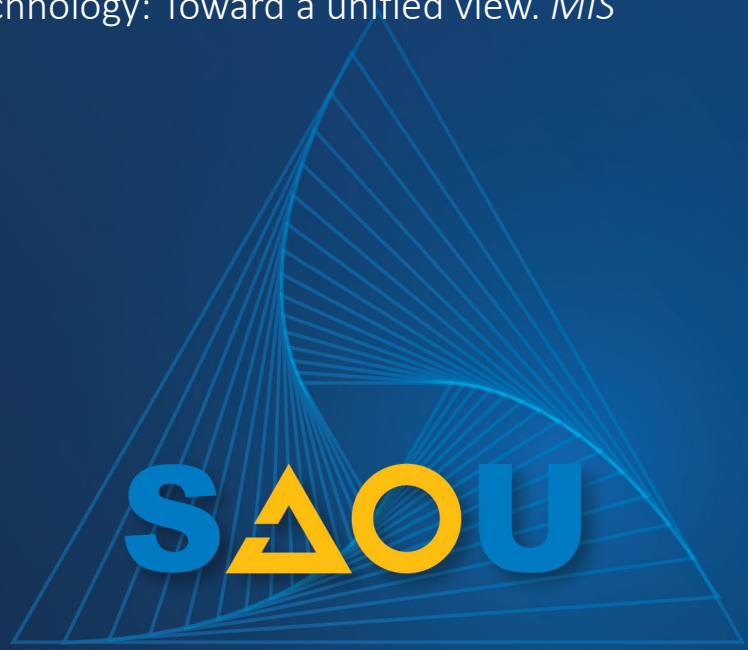
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