

## **A New Paradigm Applied: The Education Sector**

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We are facing a new paradigm driven by a discontinuity induced by technology change, i.e. the separation of information from physical goods driven by information technology diffusion.

To recap, the new paradigm has the following factors:

1. enables a massive growth in wealth
2. reduces transaction costs
3. requires trusted custodians of information
4. enables new forms of organisations
5. changes the boundaries between organisations and the market
6. creates the self-interest for people to own information defining their person
7. requires maximum storage of data to realise maximum returns

So, what does this mean for the education sector?<sup>1</sup>

The first point is that a massive growth in wealth in society should provide greater resources available to educate people. The separation of information from physical goods is leading to an increasing use of automated systems instead of semi-skilled labour, thus increasing the average skills and knowledge required by the average person to participate in the economy. Further, as increasing returns industries experience higher rates of change than traditional industries, skills and knowledge have shorter useful lives, thus increasing the demand for retraining people throughout their productive lives. These demand factors will lead to a substantial part of the economy's increased wealth being channelled into the education sector to allow people to realise their ambitions and to fuel the demand for highly skilled people.

The second point is a reduction of the transaction costs inherent in the sector. Transactions costs have traditionally governed the ratio of Workers to Consumers, the logic behind creating centralised educational centres rather than individual learning and the types of course available. In the new paradigm transaction costs will drop significantly, leading to a realignment of the sector. We can expect that automated service delivery will replace skilled Workers in many areas, enabling education to be supplied independently of any location. It is likely that Consumers will gather only for purposes of shared experience with a skilled Worker in a specific field, with general education conducted individually with access to tutor support as required. Further consequence is that education can become more global, leading to access to greater skills and a degree of standardisation of subjects, while greater niching enabled by each Worker having access to a larger pool of Consumers enables more diverse and focused education subjects.

The third point is that Consumers will increasingly recognise the value of their personal information rather than rely on Suppliers, and the consequential power that enables them to drive the educational process, and therefore encourage information to

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<sup>1</sup> For the purposes of this paper, the education sector jargon of Teacher/Lecturer, School/Institute/University and Student have been replaced by the generic Worker, Supplier and Consumer to enable better comparison with other economic sectors. The term Customer refers to the person or entity paying for the product or service.

be stored using trusted custodians. The Suppliers will wish to leverage the economic benefits inherent in the custodian, including leveraging the benefits of increasing returns. The result is the sector should shift from Supplier driven information towards an independent custodian.

The fourth point is a consequence of the reduced transaction costs. The dominant organisational form is a consequence of the relativity between the costs of operating a market and the co-ordination costs of managing employment contracts. A realignment of costs driven by reduced transaction costs as a result of online information services enables an online market for services and products. Suppliers are likely to transform themselves into centres where niche mini-Suppliers can provide services, while other suppliers meet education needs through online capabilities. Workers are likely to become self-employed and provide a combination of contracted services to selected Consumers and pay-for-access services through automated customer driven delivery systems.

The fifth point is that the new organisational forms will blur the distinction between the education Supplier, the Customers and the Consumers. In many cases, Suppliers will also be Consumers, as the educational experience requires continual reskilling and Consumers at one level are able to assist other lesser-skilled Consumers, and thus act as a Supplier at that level. The significant reduction in transaction costs enables a market mechanism that can enable more effective educational outcomes for Consumers, while simultaneously providing more focused and greater amounts of skill and knowledge in forms to society to support the general economy and fuel economic performance.

The sixth point is that people will increasingly recognise the benefits in controlling information regarding their educational experiences, to enable them to compete more successfully in the market, leverage new areas of opportunity and to position themselves more effectively in society. The increased value in this information requires increased protection against misuse, thus creating the vested interest for the Consumer to control access of this information themselves and not rely on the goodwill of third parties.

The final point is that increased information access relies upon data collection. The ongoing monitoring of Consumers enables a degree of self-management, as Consumers can gain feedback from their educational experiences and use that to improve their outcomes. The increased measurement provides an improved basis for competition in society, thus increasing Consumer focus on performance from the education sector.

These changes can all be predicted by applying a new paradigm of an Information economy, but probably represent only a portion of the real benefits, many of which will become apparent only in the context of the new paradigm once it is entrenched. The consequence of these changes is a substantial improvement in the skill and knowledge of the average person, thereby enabling substantial improvements in society. It can be expected that the vested interests will resist change. The ease of the transition depends on the skills and dedication of people in the sector to the consumer of their services.