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## “21<sup>st</sup> Century Learning”

### A contest to define an education Meme

**A**ccording to Wikipedia, “a meme acts as a unit for carrying cultural ideas, symbols or practices.”

“21<sup>st</sup> Century learning” is a meme over which there is a cultural struggle in the area of education. Needless to say, the technology industry has been quick to grab the phrase for its commercial purposes. After all, what could be more pushing us into the future of this new century than technology?

However, even among those promoting a new paradigm for education that takes advantage of information and communications technology, there are, in fact, different approaches that reflect different views of what technology is appropriate and how each might contribute to education.

Meme X is about clearly defined outcomes, databases, individualism and “mass customization.”

Meme Y is about fluid and rich communication networks, process as outcome, growth and collaborative work.

#### **What does Meme X look like?**

One version of Meme X is presented in a set of PowerPoint slides titled “The Future of Learning” from IBM Global Education

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Industry. The essence of it is presented in a “Road Map for Education Transformation,” provided to executives to sell clients on what IBM has to offer.

Of course, what it has to offer grows out of the nature of its technology and the understanding of the world built into that technology. The IBM definition of the purpose of education is quite telling of that view:

Provide every student with optimized learning and skills development to enable them to compete in the new economy through a dynamic, cost effective and adaptive learning environment.

Education is about preparing social capital for the economy. How can the technology accomplish this?

- Increase results by shifting to data-driven decisions
- Leverage analytics to identify performance issues early
- Build and manage customized intervention plans using district and other models
- Leverage integrated technology delivery of personalized lesson plans, in and outside the classroom

IBM, of course, has some tools to sell, as well as space in the cloud to store and manipulate the data: a student performance data system, predictive analysis, intervention case management and digital content delivery.

To some degree, these are the basic steps a teacher always takes: assessing where the student is, identifying problems and strengths, providing resources and assignments and offering lessons and resources that help students learn.

However, there are significant differences.

To be fully digitized, all the aspects of the process must be pre-defined. Pre-define the objectives to be achieved, the processes that will develop the skills, the specifics of possible interventions based on the analysis and the delivery of the specific lesson plans and resources. This leaves the teacher primarily to make sure the students show up and are following the program.

This is what Ursula Franklin calls a prescriptive technology production model. It requires every element to be broken down into identifiable steps to make production predictable. She says

that "prescriptive technologies are designs for compliance."

21<sup>st</sup> Century Meme X as exemplified by IBM's "The Future of Learning" has its goals and processes built in and is non-negotiable.

### What does Meme Y look like?

Franklin talks about needing a holistic technology based on a growth model for education. The model calls for interventions by the teacher to find the best conditions for growth, assessing the environment, the person and the intention. It draws on craft knowledge to accomplish this, being able to apply experience to each unique situation, unlike Meme X which seeks to define and digitize the craft knowledge.

"Any tasks that require caring," Franklin says, "whether for people or nature, any tasks that require immediate feedback and adjustment, are best done holistically. Such tasks cannot be planned, co-ordinated, and controlled the way prescriptive tasks can." Further, "if there ever was a growth process, if there ever was a holistic process, a process that cannot be divided into rigid predetermined steps, it is education."

The IBM vision of Meme X is clearly about a very different kind of education than Franklin's. Franklin is not alone in seeing an alternative to the prescriptive approach.

Another view is nicely captured in the title of a small book: *A New Culture of Learning: Cultivating the Imagination for a World of Constant Change* by Douglas Thomas and John Seely Brown.

Thomas and Seely Brown say that the new culture of learning in the fluid environment of technology is like play: "When play happens within a medium of learning it creates a context in which information, ideas, passions grow."

While today's typical classroom does not produce these conditions and "much of the new learning takes place outside traditional educational forums, we do not argue that classrooms are obsolete or that teaching no longer matters. Our goal is quite the

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opposite. We believe that this new culture of learning can augment learning in nearly every facet of education and every stage of life.”

They say that this new culture of learning comprises two elements. One is the massive information network that gives the opportunity to learn anything. The second is “a bounded and structured environment that allows for unlimited agency to build and experiment with things within those boundaries.”

Thomas and Seely Brown adopt the metaphor of cultivation to describe the process and the relationships among the learner and the teacher, much as Franklin talks about growth and its unpredictability.

### Which Meme will be chosen?

Both Meme X and Meme Y are imbedded in technology. Decision-makers may get enthused about Meme Y and the promise it seems to hold. But can the politicians and the bureaucrats accept the ambiguity that is implied in a system based on imagination and exploration?

Accountants’ forms of accountability dominate in education decision-making, today. IBM promises specific results that can be measured and a sound bite to say everything is fine or an unmet measurable outcome is all the fault of the teachers. Education publisher, Pearson, promises textbooks, scripts and data systems that produce results by being teacher-proof.

Will children — and their teachers — be allowed the space for cultivation and growth rather than compliance with a corporate plan?

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## ENDNOTES

Franklin, U. (1990). *The Real World of Technology*. Toronto: CBC Enterprises.

IBM. (2011). “The Future of Learning: Executive Insights.” Produced by IBM Global Education.

Thomas, D. and Seely Brown, J. (2011). *A new culture of learning: Cultivating the Imagination for a World of Constant Change*.