

Sailing the winds of “creative destruction”: Educational Technology during economic downturns

By

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The world of business is hunkering down under the assault of a global economic downturn of historic proportions.

Companies large and small are engaging in frantic cost-cutting campaigns, freezing budgets, cancelling expansion plans, closing stores and plants, postponing long-term decisions and trimming payrolls.

Under these scenarios, training and education might seem counter-intuitive to conventional business logic and more often than not, are usually among the first items to be eliminated.

However, a closer look at the practices of emerging economies and the handful of companies that not only survive but thrive during massive downturns might contradict such conventional wisdom.

Companies such as *Amazon*, *Zipcar*, *Wal-Mart*, *Toyota* and those in emerging markets seem to follow a very different pattern, actually cutting physical and financial capital expenditures *by increasing* their focus on smart uses of intangible assets such as intellectual, human and social capital, and among them, innovative and extensive applications of educational technology.

Let's explore seven lessons coming from those who thrive under “bust” conditions. We will try to show how smart and innovative educational technology can help organizations, individuals and even communities to:

1. Tame business cycles
2. Make their case as a business case for your *external* clients.
3. Reinvent the workforce

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4. Reinvent markets and business models
5. Graduate organizations, not just individuals
6. Develop business ecosystems
7. Extract more “bang” from each intellectual capital “buck”

Taming “business cycles”

Back in 1939, after an extensive study of European and American recessions and recoveries, Austrian-American economist Joseph Schumpeter¹ concluded that business cycles were an integral and positive force for capitalistic economies.

The “gales of creative destruction” – as Schumpeter called economic downturns - are part of the constant renovation and reinvention of industries and the correction of bouts of what Galbraith² called “financial euphoria.” As difficult as they can be, economic downturns create many opportunities to put into practice innovative and breakthrough concepts - usually postponed to the indefinite future during “easy money” times - while wiping out obsolete industries, dysfunctional companies and self-destructive financial practices.

As a matter of fact, it often takes a downturn gale to force companies into moving innovation from the lab to the street.

It was not until the 1873-1896 recession³ in the United States - when the rising costs of commodities hit U.S. companies hard - that electricity’s superior efficiency in converting oil and coal into energy earned Edison⁴ Wall Street’s “green light” for electrification.

Even once the “irrational exuberance” of boom periods goes bust, companies with better business models and smarter use of technology apply this underutilized and less expensive capacity, thus starting the next cycle of growth. *Amazon*, *FedEx*, the airline industry⁵ and *Wal-Mart* benefitted from the digital overcapacity left by the dotcom bust and transformed

¹ (Schumpeter, *Business Cycles: A theoretical, historical and statistical analysis of the Capitalist process*, 2 volumes, 1939), (Schumpeter, *The theory of economic development*, 1934)

² (Galbraith J. K., 1990) (Galbraith J. , 1954)

³ See URL: http://en.wikipedia.org/wiki/List_of_recessions

⁴ (Millard, 1990)

⁵ Online ticketing and sales helped airlines grow their business revenue stream while reducing dramatically costs for their companies and clients.

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e-commerce from a technophile pastime into a 200 billion dollar a year mass-market and logistics industry.

Educational technology concepts and methodologies such as *electronic performance systems (EPSS)*⁶, *communities of practice*⁷ and *e-performance*⁸ have been critical components for such developments and are the “weapons of choice” that helped small Indian tech firms such as *Infosys*⁹ capture global markets during the 2000 downturn.

Making your case as a business case for your external clients

In the rush to respond to a downturn, we must keep in mind that all actions and technologies are *means* towards social, organizational or individual ends. If we hurry to fight fire without paying due attention to its actual causes, we might end up discovering that trying to extinguish a cooking oil fire with water will just make it flare and spread.

Before selecting our technology of choice – be this reengineering, downsizing or retraining - we must make sure we identify those technologies that will improve results *for our external clients*.

In a downturn, most organizations and individuals focus on cutting their internal costs without considering whether they are actually passing or increasing these costs along to their clients. The usual consequence of such a shortsighted approach to cost-cutting can be setting up the organization’s revenue stream for an even sharper nose dive.

Educational technology contributions under “bust” conditions must target improving both the “*bottom line*” – costs, efficiency, resource utilization - that is mostly within the organization *and* the “*top line*” – revenue, business opportunities - that operates in the real, external world of market, clients and community.

⁶ (Gery, 1992)

⁷ (Bernardez M. , Capital Intelectual: Creación de valor en la sociedad del conocimiento, 2008) (Bernardez M. , 2007)

⁸ (Bernardez M. , From E-Training to E-Performance: using online technology to work, 2003)

⁹ (Luce, 2007) (Sirkin, Hemerling, & Bhattacharya, 2008)

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Companies such as *Amazon* and *Zipcar*¹⁰ use online technology to improve *their clients'* top and bottom lines, thus simultaneously increasing their revenue during downturn cycles.

Ask yourself these questions to select value-adding educational technology applications during a recession:

1. *How can we help our clients (and our clients' clients) reduce costs (thus increasing their purchasing power)?* By creating online user communities, *Zipcar* provides its clients with a car they can use for as little as one hour (cars just-in-time and just-enough). By reducing the rental process to just four clicks, *Zipcar* cuts dramatically its own operational costs *and* saves its clients' time and their pick up and drop off costs.
2. *How can we help our clients (and our clients' clients) increase their revenue, profitability or quality?*- *UPS* and *Amazon* provide sharable, just-in-time logistics and e-commerce capabilities to small business and entrepreneurs that enable them to increase their revenue by having access to global markets. Educational technology-embedded applications such as *EPSS* to help small business optimize routes and logistic costs and *CRM* to track customers' preferences and behavior are a key part of both *UPS* and *Amazon's* value proposition¹¹ to their clients.

Reinventing the workforce

If something can be learned from downturns, it is that the best way we can save for a rainy day is to invest in our own personal or organizational *employability*.¹²

Educational technology starts with us.

A few questions can help us and our organization refocus on increasing our human and intellectual capital before we have to send out our resumes:

1. Are my competences adequate to the current market and my clients' needs?

¹⁰ For more information on *Zip Car*, see URL: <http://www.zipcar.com/>

¹¹ (Anderson, Narus, & van Rossum, March 2006)

¹² (Guerra, Bernardez, Jones, & Zidan, 2005)

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2. Am I investing in my own intellectual assets (*e.g.*: second language skills, business acumen, understanding other cultures, and markets)?
3. Is my current job vulnerable in this crisis? How? Can I do something to make it safer? Does my current job have a future? Do I have a future in this position? Where are the jobs of the future? Where are the potential employers of the future? Do I have a plan to get there?
4. Do I have a plan for thriving under the current downturn? Have I defined concrete, specific steps for the coming weeks and months? For a two to three-year “L-shaped” economic recovery scenario?
5. Which are the technological competences I should strengthen or acquire to make 1-2-3-4 happen?
6. What should I do to improve my attitudes toward change? My networking? How strong and how deep is my rolodex?
7. Do I have a “Plan B”?

No matter how good our workforce development programs are, they will never work if each individual does not take charge of developing one’s own human capital assets and thinking about oneself as an investor.

Reinventing markets and business models

Economic downturns play into the strengths of smart, technology-intensive business models. The success of the *University of Phoenix* and the *Yale-Harvard-Oxford* consortium in providing online higher education to working and lower income students at a global scale after the 1999-2000 economic downturn is an example of how crises can midwife large-scale technological adoption and spawn growth in the middle of a recession.

Recessions create opportunities for developing not just new companies, but new markets.

Indian companies such as *Tutor Vista*¹³ thrived during the past five years by providing online tutoring to K-12 American students to meet the *No Child Left Behind* standards. Today, the Indian directory for such services includes more than 100 new companies

¹³ (Bernardez M. , *Capital Intelectual: Creación de valor en la sociedad del conocimiento*, 2008)

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serving the United States, the European Union and India and employing an average of 400 teachers and a new online workforce of over 20,000.

Massive applications – and thus demand - of *EPSS* and collaborative online, virtual work systems to reduce transaction costs and to increase large and small businesses and “*prosumers*¹⁴” revenues at a global scale are already taking place in OECD and BRIC countries.

A sharp, prolonged “L-shaped” recession will only increase the demand for such smart applications of educational technology.

Graduating organizations, not just individuals

New and innovative business models for universities focused on graduating organizations rather than only individuals that have been pioneered in the United States by MIT are likely to thrive under hard times¹⁵.

India’s Institutes of Technology (IITs) and Mexico’s Sonora’s Institute of Technology (ITSON) - are good examples of universities helping to create new organizations and jobs for their graduates through a “graduation” process that dramatically improves the rate of survival and success as well as the retention of talented human capital.

Developing business ecosystems

Reestablishing the flow of supply and demand during downturns requires going beyond the rescue of single organizations through bailouts towards improving and developing new business ecosystems that can generate the conditions for a wider and faster recovery.

China emerged from the massive famines and obsolete infrastructure left by 50 years of crippling communist centralized planning, Red Guards persecution and massive bureaucracy by establishing Special Economic Zones (SEZ) that operate as free market, free trade, entrepreneurial ecosystems bringing 400 million Chinese into the ranks of the middle class in a decade.

¹⁴ (Anderson C. , 2006)

¹⁵ (Barrow, 2001), (Bernardez M. , *Desempeño Organizacional: conceptos y herramientas para la mejora, creación e incubación de nuevas organizaciones*, 2007)

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*Silicon Valley*¹⁶ is another example of a successful business ecosystem built by software engineers laid off during the 1960s that helped bring about new startups that created the PC boom of the 1980s and the Internet boom of the 1990s.

Educational technology can provide not only the tools for collaboration and communication among entrepreneurs but also new educational models focused on developing and improving business ecosystems.

Extract more “bangs” out of your Intellectual Capital “bucks”

As Rivette and Kline point out in “*Rembrandts in the Attic*”¹⁷, most organizations and individuals do not realize the full potential of their intellectual capital assets.

Critical innovation and other valuable intellectual capital assets remain ignored, dormant or only partially utilized.

Intellectual capital is not only about technology. It is also art, environment, lifestyle and culture.

Santa Fe was a solitary town following the decline of the railroad and farming until Georgia O’Keefe put its landscape into art exhibitions in New York. Today, Santa Fe is one of the five most important art and real estate markets in the United States and upscale versions of O’Keefe adobe homes are built and sold for six figure values.

Americans used to drink instant coffee until Howard Schultz introduced the European café that he discovered during a trip to Italy through *Starbucks*¹⁸.

Intellectual Capital is therefore in the eye of the beholder, and educational technology can help to uncover and discover its potential by unveiling it to new consumers as Schultz did with coffee, and Robert Mondavi did with his pioneering wine tasting courses at the 1964 World Fair.

¹⁶ (Kenney, 2000)

¹⁷ (Rivette & Kline, 1999)

¹⁸ (Schultz & Jones Wang, 1997)

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Think of what *Home and Garden TV* and *Fine Living.com*¹⁹ have done for the real estate and home renovation industries, and you will have a full picture of the impact smart educational technology applications can have in creating new markets and boosting the economy during slowdowns.

Instead of hunkering down and waiting for the next nuclear attack of economic recessions, smart uses of educational technology can help individuals, organizations and communities reinvent themselves and more quickly return to even better businesses than those they left behind.

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¹⁹ For more information on HGTV and Fine Living check URL: www.hgtv.com and URL: www.fineliving.com

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