# IMPLICATIONS OF RADICALLY TRANSFORMATIONAL CHALLENGES CONFRONTING EDUCATION BUSINESS LEADERSHIP

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## ABSTRACT

This paper highlights the radical and rapid changes occurring at all levels of education that are having a profound impact on educational leadership, governance, business and administration. These far-reaching transformations include: competition from a rapidly expanding unregulated private sector; the international impact of de-regulation; the demise of union power, secure education jobs, time-honored hours and working conditions; constant, rapid education policy change and the proliferation of open access technologies which are rendering physical education campuses less relevant or obsolete. The paper suggests that at this stage in history we are witnessing game-changing forces that are fundamentally altering educational provision, the nature of education work, the education workforce, educational outcomes, educational leadership, governance and business. Most importantly, it argues that educational leaders managers need to be ready for them and more instrumental in policy debates arising in their wake. The paper concludes with ideas for responsive action from education business leaders.

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KEYWORDS: Education Game-Changers, Education Business, Educational Change

### **INTRODUCTION**

Where the production is BIG BUSINESS. From kindergarten to higher education, from basic training to the most sophisticated professional learning, from knowledge transfer to knowledge creation – no matter what form it takes, where it is conducted or at what level – education globally is a multi-trillion dollar industry (Everett, Johnson and Madden, 2007). Education employs millions of people and entails countless assets to supply the world's insatiable appetite for learning consumption and production. With formal education requirements expanding to subsume much of our individual lives and knowledge being in constant need of updating, education is now an ongoing, lifelong pursuit. The overwhelming scale of demand for education across the globe is staggering, heightening the impetus for significant transformation at a time when universal primary education for all the world's children has still not been achieved (Brown, 2011). There will never be a time when education ceases to be an expanding and integral component of life and work (Starr, 2012).

Right now, however, educational institutions are experiencing enormous flux and change, the likes of which have never been so wide reaching and disruptive. Powerful and pervasive impetuses for change are significantly altering the status quo, prevailing customs, current thinking, long-held traditions and assumptions, and the way societies work and do things. Concomitantly we are witnessing education policy and practice transformations that may be colloquially referred to as 'game changers' or 'rule breakers'. For the purposes of this paper a 'game-changer' is defined as: "an event, idea, or procedure that effects a significant shift in the current way of doing or thinking about something" (Oxford Dictionary).

Education is a globalized activity, and the impact of globalization provides a rationale for the gamechangers and their rapid emergence. Globalization has intensified international economic competition spurring governments to increase national growth, productivity, efficiency and knowledge yield via a welleducated, innovative workforce and citizenry. Education is seen to play a major role in enhancing the nation's competitiveness and productivity in a global marketplace (e.g. Productivity Commission, 2013). As a result, education policies throughout the developed world have increasingly subsumed economistic imperatives.

As a result of globalization, governments of all persuasions have instigated structural reforms to align national education agendas with the demands of intensified international competition. Education policy is, therefore, consistent with the needs, values and underlying philosophy of market economics and neo-liberal political agendas that valorize a clear set of premises and values: sovereign individualism, competition, consumer choice, institutional differentiation, innovation/entrepreneurialism, cost efficiency, user-pays principles, small government and institutional autonomy. In this context, governments (state and federal) and education "consumers" (parents and students) require greater transparency and more information to aid choice and accountability in autonomous, locally managed institutional arrangements, hence the introduction of comparative education websites (e.g. Australia's My School website that broadcasts the statistics and test results of every school in the nation).

After the catastrophic and ongoing effects of the global financial crisis (GFC) in 2008, education has been even more clearly in the sights of governments as a major vehicle for economic reform, national productivity and growth. A reinvigorated and fortified laissez-faire free market economic and neo-liberal policy hegemony is rapidly changing the operations and behaviors of educational programs and institutions. Education's role in national economic fortunes has assumed primacy over its individual, civic or social benefits (Reid, Gill & Sears, 2010; Smyth & Shacklock, 2004). Education is a contested and highly political realm of social life. Reforms are "deeply political", and raise questions about the fundamental purposes of education (Woods, 2008, p. 80). Globalization has had a profound effect, forcing education institutions to rethink their operations and behaviours as the world becomes smarter, faster and smaller (Bush, 2008).

In the face of globalization, education is as fallible and vulnerable, yet as propitiously and opportunely placed to benefit as any other essential human enterprise. Through the forces of globalization, education everywhere confronts new challenges and uncertainties (Held & McGrew, 2004), although there are opportunities: decisions about what to do, how and when rest with educational leaders. In order to achieve positive outcomes, there are 'wicked' determinations to be made at the local level (Kets de Vries, 2001).

### LITERATURE REVIEW

A general literature search will attest to the assertion that 'the business of education' yields very little – mostly texts about Business Education. A literature review revealed research that relates to aspects of the current study, but none that traverses the same territory in its entirety.

Researchers covering complementary terrain include Bonk (2009) whose book *The World is Open: How Web Technology is Revolutionizing Education* discusses developments in e-learning and e-demand. This phenomena raises questions as to how much, if any, physical infrastructure in the way of campuses and buildings, and features such as rigid timetables and on-site teaching staff may be necessary for education to occur. In similar vein, Kamenetz (2010) suggests that e-learning and e-demand are producing the DIY U (do-it-yourself university), with 'edupunks' and 'edupreneurs' creating coming shifts in higher education. Kamenetz's research raises issues concerning educational access and costs associated with traditional universities while focusing on inevitable transformations created through interactive technologies while providing advice about DIY education.

Knight (2008) extends this theme by exposing the rapid changes that are occurring as universities embrace internationalization and its attendant accouterments such as commercialization, international institutional

competition and quality assurance. Globalizing tendencies are changing educational leadership, business and governance irrevocably, with universities traversing uncharted territory as they respond to rampant change.

Rothstein, Heywood, Adams & Scott's (2009) research focuses on the schooling sector and challenges current strictures around teachers' employment, including remuneration, employment conditions, vacations, health and retirement plans, as well as teaching mores, dominant education cultures and the practices of teacher unions (see also Maslen, 2013). This book discusses increasing needs for educational performance accountability and its implications, including methods of evaluating teacher performance and payment by results. Likewise, Meister & Willyerd's (2010) research on future work and impending workforce needs canvass emerging employment/employee trends and the challenges they present for employers. Like Rothstein et al (2009), the authors argue for drastic employment changes, including increasing mobility, 24/7 global accessibility, flexible hours, work location, contractual arrangements, and shifts in expectations around entitlements, promotion and retirement age.

Darling-Hammond (2010) raises the issue of closing the achievement gaps between various classes and segments of American society, finding that current policies and practices for educational equity in USA – including incessant testing regimes - are failing and creating further problems. She posits why this is the case and proposes strategies for educational reform based on improvements achieved elsewhere in the world.

While not solely focused on education, there is much research from the fields of economics and finance describing their social influences that are also of relevant to this study. For example: Shiller (2012) describes how finance can be used to create social good. He focuses on re-defining and re-thinking finance and its role for a good society and interrogates the meaning of social stewardship for positive social outcomes. Chomsky (1999) analyzes current policies underpinned by neoliberalism and economic rationalism, the interests they serve and their social and ecological consequences. Chomsky suggests that transformation towards equality will require organized social and political activitism. To achieve similar ends, Sukhdev (2012) proposes new business models to redress 'market-centricity' and problems associated with social inequalities, environmental degradation and political interference in corporate life.

Watson & Freemand (2012) study the trends, opportunities and challenges presented by relentless, rapid major change. They ponder possible future scenarios and potential problems while suggesting social actors must actively shape the future to overcome looming problems and to generate constructive, positive change. Winter (2012) writing on the same theme argues that organizations must be nimble – adaptive, innovative and high-performing to survive in a volatile, unpredictable global business environment and provides a 'blueprint' for coping with fast, frequent change to achieve business agility.

Currently, the "business of education" is not a common research area. However, as education both recognizes and seeks to confront unprecedented business challenges, there is a rapidly growing recognition of its importance by governments, education systems and policy makers, educational boards and councils, students and parents and the media.

# DATA AND METHODOLOGY

This research involved interview and focus group data gathered from 2010 to 2013. Face-to-face, semistructured interviews and focus groups were conducted with 199 participants, digitally recorded and transcribed. This study originally occurred in Australia but was broadened to include information from the United Kingdom, the United States, Canada, South Africa and New Zealand, through participation in international conferences for education business managers, and through the Association of School Business Officials' International Aspects Committee. The research is an exercise in grounded theory building (Glaser and Strauss, 1967), which supports examination of individual standpoints within complex contexts. Grounded theory research considers the inextricability of the macro- (international and national), meso- (state and district) and micro- (institutional) connections and their effects on the experiences of individuals and groups. Real life experience is the starting point, connecting individuals with broader structural arrangements, such as global economics, government policies, national social issues and historical events. In other words, large-scale social structures affect tangible realities that are inseparable from contextualized practice or history (Ball, 1994). In this case, for example, micro-level experience is where the business effects of macro and meso actions, innovations and decisions are sensed and site-based responses instigated, with institutional experience being influenced by local, systemic, national or global decisions and events.

In grounded theory building, theory is generated from the data gathered through an inductive process - a process whereby emerging research insights are analyzed and continually tested, producing further evidence and/or new theoretical insights (Corbin and Strauss, 2008). Data were categorized and analyzed, with similarities and differences enabling the construction of propositions. As themes emerged 'loudly and clearly' through the data, a theory or picture of the actual situation could be produced. Thus a recursive relationship between data collection, analysis, and theory occurs until the data are 'saturated' - that is when similar instances appear and re-appear over and over again (Glaser and Strauss, 1967). Hence the iterative processes of developing claims and interpretations within a grounded theory approach is responsive to research situations and the multiple levels of meaning produced by the people in them (Gray, 2009). Finally, emerging theories were compared with extant literature from across the world.

## **RESULTS AND DISCUSSION**

The most often-cited game-changing challenges raised by interviewees are described below under thematic headings and include the implications for educators and educational institutions. As will be demonstrated, these game-changers are inextricably inter-linked and mutually influential and often comprise paradoxical, inconsistent and contradictory tendencies. They are altering or will alter education such that it will never be the same again, providing much grist for important decision making in educational leadership, business and governance. The major themes include the impact of increasing de-regulation in education, constant rapid policy change and disruptive technologies.

### De-regulation and Default Autonomy

Increasingly governments are devolving authority and responsibility to the education site level. Greater deregulation and policies of 'default autonomy' refer decision-making, risk management, accountability and liability to site leaders and governors. Proponents of expanding 'devolution' include those claiming such policies aid educational improvement, increasing student learning attainment and raising standards (e.g. OECD, 2010). Opponents are cynical about 'default autonomy' occurring simultaneously with downwards pressures on budgets and upwards pressures on standards after governments themselves have failed on both counts – in other words, 'pushing problems down the line' (e.g. Marginson, 2010).

Fewer government impediments to operations, however, come at the price of increasing interventions in the form of new accountabilities, regulatory compliance and mandatory audit reporting. Governments promoting autonomous educational institutions, "steer at a distance" (Kickert, 1995), mandating policy agendas and quality assurance mechanisms, devolving all operational activities to individual sites and averting risk through intensive regulatory, compliance, audit and accountability schemes. Therefore, while bureaucracies may be smaller, government interventions in education are increasing. The current education funding focus is on outputs rather than inputs; public-private partnerships and sponsorship; a 'hand up' rather than a 'hand out'. Public investment in education is squeezed with constant Treasury pressures to reduce education spending, while value-for-money (VPM) and return-on-investment are highlighted.

Previously dominant social democratic agendas have been marginalized, including overt equity and social justice policies in education (although lip service is paid to them).

A corollary impact of de-regulation is the arrival of new players in the education market - a burgeoning 'for-profit' sector with an escalating market share and a new labor supply of non-qualified or semi-skilled and casually-employed staff. Some governments are contemplating increasing this movement by appointing non-educators to be educational CEOs, replacing school principals and academics in top education leadership posts (e.g. Preiss, 2013). The rise of nimble, flexible, low cost, low bureaucracy, 'for profit' education providers in a deregulated market with online or low rent changeable premises, movable product & incentivized enrollments are challenging traditional educational institutions which are highly regulated, expensive to operate, with extensive premises and infrastructure; tenured, unionized staff; rigid operational hours and standard program offerings

In the United States alone, this growing sector represents 8% of all post-secondary enrolments as online education services burgeon (The Economist, 2010). Unregulated education markets such as the private tutoring industry, charging fees from \$25 to \$100 per hour, are flourishing (Australian Broadcasting Corporation, 2011). Sponsors clamber for naming rights and corporate social responsibility recognition, seeking reputational benefits and future custom. There are public-private partnerships, cross-level education provisioning and multi-service hub developments, which are changing the way education is delivered and operationalized.

De-regulatory activities have also fuelled the internationalization of education, including the enrolment of full-fee paying international students and a concomitant movement of students and teachers across the globe. Education has thereby become a tradable commodity as international student markets become critical to nations' gross domestic product. International education testing regimes and league tables for schooling and higher education (a huge education industry in itself), provide measurable and comparable outputs as a barometer of educational effectiveness. This exercise also assists potential international students in making choices about where to study, which is significant in countries such as Australia where education is the nation's third largest export earner, and for the state of Victoria, the largest income earner.

Suffice to say, these moves are not without their critics, including the overwhelming majority of respondents of this research.

### Constant Rapid Policy Turnaround

Incoming governments focusing on short-term political agendas change the education policies of their predecessors, often appealing to populist concerns through negative political and media commentary. A general distrust of educators is perpetrated with criticisms generally concerning 'provider capture', inadequate standards, the need for "back-to-basics" programs or poor returns on education investments. These disparagements serve to legitimate educational policy reforms amongst education 'consumers' whose expectations are constantly growing. Politically appointed bureaucrats ensure education policy aims and their implementation are pursued (a major change since the days of permanent bureaucratic appointments serving the government of the day irrespective of its political persuasion). Government funded 'think tanks' and independent consultants assist the pursuit of goal achievement, policy legitimation and cost savings, amidst a distrust of educational research emanating from independent university researchers.

A consequence is that education policy changes constantly which makes full implementation impossible and policy effects inestimable while ensuring that educational institutions are constantly responding to externally imposed change. With rapid technological innovation and stakeholders at every level and angle, emerging educational responses are often un-tested and disruptive to conventional practices and assumptions within educational leadership, business and governance. The longevity of formal policies, business models and governance cycles has never been shorter and the work of educational leaders, education business managers and governing councilors has never been more uncertain, experimental and equivocal. Fluidity and constant major change is the new norm making leadership and governance challenging, demanding and inherently riskier. Most frustrating for educators are policies that "come and go", wasting enormous amounts of energy and taking time and focus away from teaching and learning. Further criticisms arise when policy mandates paradoxically contradict each other and produce unintended consequences. For example, interviewees spoke about cost-cutting policies ("efficiency dividends") such as re-engineered education workplaces, replacing people with DIY technology with the result that efforts to raise productivity are frustrated. The use of technology in rapid policy upheaval provides a segue into the final major game-changer – that of disruptive technologies.

#### **Disruptive Technologies**

This game-changer represents the largest challenge and concern for the educational leaders interviewed. Research respondents were concerned about a general inability in education to quickly adopt and adapt quickly enough to emerging disruptive technologies. Costs, capacity and the adaptability of staff are hindrances to the current 'Old World' (industrial thinking), which is increasingly outmoded and outdated, being replaced with New World, digital thinking and networked behaviors. Education can't keep up with constant change and innovation and is seen to be still deep-rooted in the industrial factory age, with government policies reinforcing this business model. Research commentators referred to the difficulty of promoting creativity, problem-solving, critical thinking and teamwork in schools - New World skills while politicians are calling for 'back-to-basics' reforms and reinvigorated standardized testing regimes that narrowly focus the curriculum on Mathematics, Reading and Science. Unwittingly an insatiable appetite for testing and comparative world rankings is creating a 'core-and options' curriculum, with the three test areas being 'core' and all other learning areas 'optional'. This reversion to the 1960s elides current education arguments supporting diversity and creativity and constrains educational aims. These aims include providing a broad and balanced education in all areas of knowledge during the compulsory years of schooling, leaving specialization until senior secondary and tertiary years; meeting the learning needs to different talents and interests; and developing students' capacity to apply knowledge to real world problems through interdisciplinary learning applications.

The proliferation of technologies enabling education to occur anytime, anywhere, on any device make physical attendance in classrooms and lecture theaters unnecessary, although educators concede that onsite attendance is beneficial, especially for the compulsory schooling years. One professor said: A new lecture theater has been built right next to the building where my office is located. It's beautiful – a magnificent piece of architecture and the technological equipment is amazing. It's a joy to be in and work in. BUT, last week was the first week of Semester. Of the 123 students in my course, only 32 turned up.... Why would they turn up when the lecture is recorded and can be downloaded at any time? And it's down hill from here because attendance goes down as the semester progresses. Why are we are still building lecture theaters and wasting millions of dollars? Our students are in a different era...

Kurzweil's (2005) prophecy about 'singularity' whereby technology and biology merge to augment our physical lives, senses and experiences, is almost complete. We carry or wear digital devices that have transformed the world in every way, providing constant access to reality and virtual reality. Technologies such as Google Glass, the *hands-free multi-function internet device* worn like eyeglasses enables simultaneous reality and virtual reality experience, challenging the usefulness or necessity of traditional textbooks and the didactic rote learning of facts. *At the time of writing the release of this amazing development is imminent, with global demands expected to rival the advent of smart phones and i-pads. Take-up will no doubt be speedy as Google Glass becomes the next 'must-have' device.* 

Social media enables anyone with a web 2.0 enabled device to create, share and comment on content from anyone anywhere. Interviewees referred to *Tumblr, Gowalla, Foursquare, Posterous, Quantcast, Friendster, Fromspring, Quora.com, Hunch.com, Facebook* and *Twitter* which are consuming increasing amounts of students' time while creating anxiety for many educators who feel overwhelmed and out-of-date.

Educators were aware of emerging technologies that will be commonplace in no time. The advent of 3D printing challenges traditional manufacturing, providing the means by which a massive range of physical objects can be created onsite, tailored and individualized, as needed by anyone, anywhere. The specter of 4D printing that enables material objects to change their properties like chameleons to suit varying conditions (for example, glass could become opaque or transparent, clothing could become cooler or warmer as required) will have even more impact. The first generation of quantum computers are appearing - computers based on quantum mechanics that have such enormous capacity, are so fast and powerful, they will challenge human intelligence as they solve problems in seconds that would require eons through conventional computers. The developers of this D-Wave technology admit themselves that it is difficult to imagine how quantum computers or 'genius machines' will be used or their effects, but there is no doubt they will and the impacts will be astonishing and inconceivable in terms of current understandings about the world.

The Kahn Academy offers free self-paced online courses, materials, resources and assessment tools in a wide range of subjects at varying education levels and offers 'badges' for achievement. Massive Online Open Courses (MOOCs) are open-license e-learning courses offered free of charge to anyone (without pre-requisites), anywhere in the world via the internet that have rapidly swept through the global higher education landscape. MOOCs are credited with opening up Ivy-league universities and high-profile professors to the masses (Bohle, 2013). The take-up of these self-directed courses has quickly run into the millions – faster than Twitter or Facebook (Lewin, 2013).

The business model behind MOOCs might appear perplexing because the courses on offer cost around \$50,000 to produce (with videography being the biggest cost), they still require staff to monitor discussion forums, yet they are free to students. However, revenue streams can be generated through licensing, assessment fees, fees for certificates of completion, provision of recruitment data to potential employers, kick-backs from recommended text book sales, and through generating recruits into degree courses through MOOC credits. Further revenues are being canvassed through advertising or sponsorships on MOOC sites and through the development of paid introductory and remedial courses. MOOCs enable students to 'dip in and out' of education courses and coordinate the attainment of education credentials around their life events and activities. Friedman (2013) sums up the fears of many interviewees when he says:

I can see a day soon where you'll create your own college degree by taking the best online courses from the best professors from around the world ... paying only the nominal fee for the certificates of completion. It will change teaching, learning and the pathway to employment. There is a new world unfolding and everyone will have to adapt.

While universities are currently the most affected by MOOCs, there are moves for their introduction for school age children as a means of providing education in developing countries. For example, Mitra (2013) asks, "What is going to be the future of learning?" to which his answer is free, open courses in the cloud. These enabling technologies are democratizing, empowering networks and friendship groups and supporting people power. But there are downsides. Educators speak of increasing problems with cyberbullying and rising litigation for technologically created problems. Many young people are living hyper-connected lives. Educators are concerned about continuous connectivity and 'always-on' tech-savvy lifestyles that are influencing students and their learning. Concerns include students becoming easily bored or impatient with traditional teaching and learning activities, needing 'quick-fixes', instant gratification and

being disinclined towards deep-thinking and time-consuming lengthy learning tasks. This new generation of students is challenging the technological capabilities of many teachers, a fact highlighted by the OECD (2010).

The cost of technological provisioning which is quickly out-of-date is taking increasing percentages of education budgets. Further worries for education business leaders concern privacy and data security that are enormous new realms of risk to be managed.

Finally educators are aware that these game-changers raise the question – are educational institutions necessary? For example, Michigan state is enabling students from Grades 5 - 12 to take two online subjects per semester through Michigan Virtual University. And if we decide that schools, training colleges and universities are necessary, how many are necessary?

### **IMPLICATIONS**

In the high-stakes environment of educational leadership, business management and governance, the overwhelming sense derived from the interviews was a sense of the demise of 'the way we were' amidst concerns about 'the way we are' and 'are becoming'. There is much fear and anxiety about rapid, complex change and uncertainty. At the same time, there is optimism and amazement about the possibilities inherent in these game-changing forces. It would be fair to say, however, that feelings about being pushed outside of 'comfort zones' are having corporeal effects.

Interviewees mentioned the need for educational institutions to collaborate more in order to survive. Viability is strengthened through networks, federations, amalgamations amidst a larger number of educational institutions going into receivership or closing; or the cessation of less popular courses or having to implement staff redundancies. Ironically, this need arises as there is more competition between educational institutions and less cooperation as they battle for market share and as educational leaders are consumed with issues about individual sites and not 'the system'. Simultaneously there are increasing calls for individualized student programming (while the curriculum and assessment instruments are standardized) and for specializations to be available across education facilities. Interviewees argue that implementing 'individuation' policies is frustrated by educators having less time and focus on teaching and learning as more time and effort is spent on test ranking attainment and compliance mandates.

Educators believe that this testing emphasis is 'dumbing down' the curriculum and, ironically, causing standards to drop. Teaching is being de-professionalized in the process with respondents arguing that teachers are well aware of what students know and do not know – standardized tests produce information that is already known within educational institutions. There were concerns raised about the diminishing worth of education qualifications as the numbers of unemployed graduates grow.

Cheaper 'efficient' provisioning makes education 'mean and lean' but staff cuts and redundancies are occurring at the same time as education work is intensifying, with expectations of 24/7 availability, more unpaid out-of-hours work and reduced work-life balance. Educational institutions are becoming more flexible to cater for twenty-first century lifestyles (for example, Free Schools in England establish operational hours and school calendars based on the needs of working parents). Teleworking is being promoted in universities as a means of relieving car parking and office space provisions and utilities costs.

Ironically, devolved authority, responsibility and default autonomy at the site level is perceived to create a center – periphery power structure, relegating the position of educational leaders to that of perfunctory middle managers with little time or incentive to pursue institutionally inspired major change.

Many ideas about responding to game-changing challenges were recorded in the research. These mostly concerned areas for contemplation and action. These ideas are summarized in Table 1 under three main organizing themes for educational business leadership: discover, educate, advocate.

### CONCLUSION

This paper delineates radical changes influencing education and their implications for education business and governance. Data were derived from a grounded theory research conducted from 2010 to 2013 spanning Australia, USA, Canada, UK, New Zealand and South Africa. While many fundamental changes were identified, three major challenges were seen to have far-reaching effects: increasing de-regulation that is creating new players in the education market place alongside the growing prevalence of 'default autonomy' polices that increase responsibility and accountability at the institutional level; a more rapidly changing education policy environment that creates extra work for educational leaders and hinders teaching and learning; and a proliferation of disruptive technologies that are influencing education access, participation, programs, policies and budgets. These transformational challenges have their basis in the imperatives of globalization, technological innovation and a fundamental shift in the purposes, expectations and outcomes of education. Collectively they are transforming education business, governance and leadership, the role of governments and regulators, the work of educators and the learning experiences of students.

The educational business leaders in this research argue most emphatically for a re-thinking of educational leadership and education business, including the need for wrestling education out of political realm and the short-term agendas of politicians, to pursue education business 'for good'.

DISCOVER	How worldwide pervasive changes are affecting and are likely to affect education. What the challenges will mean for education business, education business models. The short, medium and longer term implication of challenges for educational institutions. Imminent and current education policy and take a position on how policy agendas should change.
EDUCATE	Work alongside educational leaders and their national professional associations to form alliances for policy change. Educate educators about education business and business implications. Overcome the education business 'backlash' (business is a 'dirty' word in education): re-brand 'business' as the means by which education happens and demonstrate how education business can improve education. Promote distributed leadership in education and demonstrate how the business side of education can create more time for teaching, learning and educational leadership.
ADVOCATE	<ul> <li>Re-think the purposes of education: the economistic/vocational vision needs to be balanced by notions about the intrinsic worth of education.</li> <li>Take a proactive stance on education policy.</li> <li>Develop alternative measures of institutional and student success and educational 'quality'.</li> <li>Question the equity impact of education policies. Denounce assumptions about a 'level-playing field' that underpin testing, rankings and institutional funding.</li> <li>Promote 'prosumption' in its broadest sense so that educational facilities, knowledge and resources are more evenly shared and costs lowered.</li> <li>Create commercial partnerships and networks for school sustainability.</li> <li>Broadcast education's good news and great achievements.</li> <li>En masse refuse to implement policy that we know to be 'bad'.</li> <li>Take political action, including making public pronouncements, political lobbying, press statements and media announcements – telling it as it is and what is required to fix problems (and pushing for fewer interventions, greater trust and not simply more money).</li> <li>Stick up for education, educators, students – everywhere.</li> </ul>

Table 1: Responses to Challenges

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