
A Decade of Promises: Discourses on Twenty-first-Century Schools in Library Policy and Research

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ABSTRACT

Prior to the mid-1970s, policy simply meant planning. Over time, policy studies have shifted from predominantly empirical approaches to more diverse methods emanating from postmodern and critical perspectives. More recently, the themes of equity, school choice, and social background (rather than meritocracy) have mixed with current discourses of centralization/decentralization, diversity/uniformity, and curriculum standardization in policy debate. The knowledge base of information technologies and resources held by school librarians can play a positive role in establishing successful policy frameworks for technology planning and implementation at school and district levels.

Honest differences of views and honest debate are not disunity. They are the vital process of policy making among free men.

—Herbert Clark Hoover

In a review of the effects of policy making on the expansion of school technology, Zhao and Lei (2009) showed that despite the contradictory and weak research evidence that technology enhances student learning, policy makers' "enthusiasm over technology remains unwavering" (p. 675). They go on to suggest that it is symbolic value rather than use value that plays a central role in school decision making about bringing in the latest and greatest new digital innovation, thus raising status and maintaining the appearance of progress. Further, the rapid development of new technologies and the complexity of the environments into which they are introduced bring unintended consequences. Such technological innovation requires adaptation and evolution throughout the school sys-

tem, from pedagogy, curriculum, and assessment to school organization and human infrastructure. This was echoed by a Canadian study (Jenson, Lewis, Smith, & Brushwood Rose, 2007), in which the authors found that policies were intended to “map, steer, and facilitate institutional change in light of the promise of a technological economic revolution,” but these policies were often poorly thought out, were based on simplistic views of what an information revolution would mean, and were “driven by action oriented bureaucracy and technology promoters” (p.7). They argued in such cases, the cart often drives the horse.

Honig (2006) differentiates implementable policy from successful policy, with the latter not assured by the former. As she notes, “implementability and success are the product of interactions between policies, people, and places—the demands specific policies place on implementers; the participants in implementation and their starting beliefs, knowledge, and other orientations toward policy demands; and the places or contexts that help shape what people can and will do” (p. 2). She proposes that a new generation of policy researchers is more focused on multiple dimensions and interactions than before and have shifted from worrying about universal truths to studying the variation that occurs among views about the parameters that have to be implemented if policy impacts are to be fully understood.

“As ‘policy’ has assumed an increasingly pivotal role in the educational system, a growing number of scholars have turned their attention to the process through which rules and regulations are adopted, and the consequences they have on teaching and learning” (Sykes, Schneider, & Ford, 2009, p. 1). Such studies have shown varied approaches to policy research, including statistical modeling using large datasets of economics, case studies of organizational and classroom impacts of sociology and anthropology, and the critical studies approaches that focus on power relationships and uneven benefits. Floden (2007) notes that such studies are founded on differing philosophical approaches related to knowledge claims about causation, human motivation, and what will happen in the future.

The concept of not only making policy but studying it is a fairly recent occurrence according to Zajda (2005), who writes that prior to the mid-1970s, policy simply meant planning. Over time policy studies have shifted from predominantly empirical approaches to more diverse methods emanating from postmodern and critical perspectives. More recently, the themes of equity, school choice, and social background (rather than meritocracy) have mixed with current discourses of centralization/decentralization, diversity/uniformity, and curriculum standardization in policy debate.

While policy making by school library media specialists (SLMSs) might have once been confined to setting rules for library organization, the central role of the school library media center as a digital information hub for

the school now requires a larger perspective in the school technology and futures policy arena than ever before. As indicated by earlier studies, the knowledge base about information technologies and resources represented by SLMSs can play a positive role in establishing successful policy frameworks for technology planning and implementation at school and district levels (Hoffman, 2002). But to develop such frameworks requires more attention to approaches and challenges in policy development and study.

The failure of policy approaches to date in achieving the technology visions of schools is rooted in the limitations of socially constructed views of technology and the simplistic images many individuals hold that students clustered around computers equals learning. The narratives commonly told of digital natives, social networking, and ubiquitous computing can easily stand in for more focused reforms that have meaningful impact on learning and teaching. For example, Solomon (2001) has suggested that widely held images of technology establish a normative framework that prevents critical questioning and meaningful change.

Peters and Freeman-Moir (2006) place this kind of discussion within the context of society's stories of utopias and dystopias and argue for expanded dialogues in sense making. "We need to problematize official futures not only of schools but other educational institutions, and the methodologies and ideologies used to construct and sustain them, but also the new narratives of 'knowledge economy,' 'globalization,' and 'free trade' that motivate and drive them" (p. 11).

TWO VIEWS FOR SCHOOLS

Long term thinking is important especially in education. But educational policy making is often short term, responding to incidents and direct political pressures. Trends confront us with the big changes in our environment and are a starting point for thinking about the future. (Istance & Theisens, 2008)

Multiple scenarios have been proposed for the future of education ranging from philosophical and economic perspectives to the most speculative science fiction. Two projects that have been influential in the first decade of the twenty-first century are ongoing efforts, in which the changing perspectives across the years provide a rich text for review and a context for examining the discourse on policy and research. What makes these different from many efforts are longitudinal perspectives allowing insight into shifting visions and methodologies as policy foundations.

OECD Schooling for Tomorrow: Ten Years of Policy Support

The Organization for Economic Co-operation and Development (OECD) began in 1961, bringing together the governments of its thirty member countries committed to democracy and the market economy. OECD monitors and forecasts economic development, researches social change, and

is a major publisher in economics and public policy. In the education arena, OECD is probably best known for its administration of the Program for International Student Assessment (PISA), one of the major international comparative standardized tests aimed at fifteen-year-old students given every three years since 2000.

Beginning in 1997, OECD's Centre for Educational Research and Innovation (CERI) began a ten-year project on Schooling for Tomorrow (SfT) involving the development of futures-based scenarios on education and case studies in member nations on trends and policy to promote these visions. During SfT, the project produced eight books between 1999 and 2006, along with conference materials, reports and case studies, and web-based information (<http://www.oecd.org/edu/ceri>). While the project officially ended in 2008, its *Trends Shaping Education* publication is continuing (Organisation for Economic Co-operation and Development Centre for Educational Research and Innovation, 2008b).

Policy and Method. From the start, the project participants identified the lack of long-term policy development as a problem for schools, an issue that continues to be a focus in recent publications. "Policy-making, not just students, teachers and schools, must be in a process of constant learning. For this, methods and strategies for long-term thinking are needed. Despite the fact that education is par excellence about long-term investment and change, forward-thinking methodologies are woefully underdeveloped in our field," noted Ylva Johansson (2000), the conference chair for the 2000 SfT conference in Rotterdam, Netherlands.

The methodology for planning used for SfT involved educational scenario analysis in which several key outcomes were explored and then used to promote dialogue, build capacity, inform policy and strategy, and bolster decision support in case study research over the course of the project (Iverson, 2006). "Futures thinking can stimulate reflection on the major changes taking place in education and its wider environment. It helps to clarify visions of what schooling should be and how to get there, and the undesirable futures to avoid. As well as clarifying values and options, it provides tools to engage in strategic dialogue" (OECD, 2009, p. 89).

The Six Scenarios. The SfT identified six future scenarios grouped in four sets, as described in the *OECD Starter Pack*, a tool for using the scenarios in planning and policy development (OECD Centre for Educational Research and Innovation, 2006, p. 29):

- Status quo – (1) The "Bureaucratic School Systems Continue" Scenario. This scenario depicts schools as unaffected by external trends and reforms. They are strong top-down bureaucracies, closed from outside pressure.
- Re-schooling – (2) The "Schools as Focused Learning Organizations" Scenario, and (3) The "Schools as Core Social Centers Scenario. In

these scenarios, schools are strengthened by strong cultures of equity and by consensus about their value. They have undergone root-and-branch reform as systems and are dynamic. In one scenario, the school remains highly distinctive, in the other it becomes a leading feature of communities.

- De-schooling – (4) The “Extending the Market Model” Scenario, (5) The “Learning Networks and the Network Society” Scenario. In these two scenarios schooling moves from formal institutionalized systems into more diverse, privatized, and informal arrangements. Schools themselves may even disappear. These changes are demand-driven or result from the growth of alternatives, which are more efficient for learning.
- Meltdown – (6) The “Teacher Exodus and System Meltdown” Scenario. This last scenario depicts a crisis where the authorities have not been able to respond to a mass exodus of teachers, resulting in a breakdown of the system

As a policy tool, the scenarios were used in multiple countries to bring stakeholders together to discuss alternative futures, bringing out varied perceptions, values, and meanings.

The OECD “Schooling for Tomorrow” scenarios can be understood as a kind of ideal-type methodology which seeks to describe in words what could happen to the education system under different proposals on specific dimensions—using the *if . . . then* rationale. The scenarios are social constructions devised by individuals able to design from scratch several models built on the same dimensions. They are the product of an *ex post* rationalisation and their fruitfulness lies in their capacity to provoke. . . . The richness of the scenario approach is in its capacity to reveal changing situations and to make explicit hidden variables or implicit assumptions. (Saussois, 2006, p. 56)

Future studies were found to be most successful when politicians or high level management openly supported it, there were sufficient funds to ensure strong leadership and organization, the methodology was used to give direction to existing momentum, and with capacities and practical material already developed (Istance & Theisens, 2008).

Trends and Mega-trends. At the final SfT conference in Helsinki in October 2008, project participants explored the outcomes of the ten-year process. Beyond reports by country representatives about successes in applying the scenario process, a draft report was presented indicating the trends and megatrends identified over the previous decade. The report noted that “many of the pertinent factors identified in the course of the programme relate to the ‘softer’ social and cultural changes relating to norms and lifestyles, alongside the measured socio-economic-demographic changes” (OECD Centre for Educational Research and Innovation, 2008a, p. 22).

The socioeconomic-demographic changes were reported in the first of the *Trends Shaping Education* reports (OECD Centre for Educational

Research and Innovation, 2008b). These include an increasingly older demographic in OECD countries, global challenges including digital divides and sustainability, knowledge-intensive economies, changing dimensions of work, the digital revolution, the shifts in political participation, diversity and value shifts, and questions of affluence (the latter issue was addressed before the recent global economic downturn). Among the social trends identified were the following:

- The changing nature of social connectivity
- Growing inequality and the issue of exclusion
- The decline of shared social norms and the accepted role of legitimate authority
- Greater individualism and the rise of market values
- Globalization
- Technological development and rise of the knowledge economy
- Growing diversity and mobility of the population
- In education, a shift from public to private attitudes

In general, despite the focus on schools in the project, much of the dialogue that developed concentrated on the strong changes in the educational environment from the linkages made possible by global telecommunications networks. In these large policy frameworks, technology can be seen as both an external force and, depending on the scenario, a potential internal scaffold or disruptive agent (Hepp, et al., 2003).

Horizon Report: A Technology Focus

A more recent trend spotter with a primarily technology-centric view of twenty-first-century education is the *Horizon Report*, an American produced annual publication jointly published by the New Media Center and EDUCAUSE Learning Initiative. Started in 2004, the *Horizon Report* describes major technological trends primarily impacting higher education, with projections of timelines to mainstream adoption for each innovation and discussions of the learning implications for each selected technology. More recently, reports have expanded their scope to become international, beginning with Australia/New Zealand in 2008 (see table 1) (L. Johnson, A. Levine, & R. Smith, 2008) and to become sector centric, focused on primary and secondary schools in 2009 (L. Johnson, Levine, Smith, & Smythe, 2009).

The development of the predictions in the *Horizon Report* involve an international advisory board, an intensive review of literature and Web resources, and a modified Delphi process to create the short lists of technologies to watch (L. Johnson, Levine, & Smith, 2009). The *Horizon Report* is intended to be the first step in building a research agenda, noting that significant work in evaluation, demonstration projects, policy formulation, tools, and technology support systems is required before these technolo-

Table 1: Key Technologies Identified in *Horizon Report* by Year

2009	2008	2007
Near Term (typically one year or less):		
Mobiles Cloud Computing	Grassroots Video Collaboration Web	User-Created Content Social Networking
Mid-Term (one to three years):		
Geo-Everything The Personal Web	Mobile Broadband Data Mashups	Mobile Phones Virtual Worlds
Longer Term (four to five years):		
Semantic-Aware Applications Smart Objects	Collective Intelligence Social Operating Systems	New Scholarship and Forms of Publishing Massively Online Educational Gaming
(L. Johnson, Levine, & Smith, 2009)	(L. F. Johnson, Levine, & Smith, 2008)	(L. F. Johnson, Levine, & Smith, 2007)
2006	2005	2004
Near Term (typically one year or less):		
Social Computing Personal Broadcasting	Extended Learning Ubiquitous Wireless	Learning Objects Scalable Vector Graphics
Mid-Term (one to three years):		
The Phones in Their Pockets Educational Gaming	Intelligent Searching Educational Gaming	Rapid Prototyping Multimodal Interfaces
Longer Term (four to five years):		
Augmented Reality and Enhanced Visualization Context-Aware Environments and Devices	Social Networks and Knowledge Webs Context-Aware Computing/ Augmented Reality	Context-Aware Computing Knowledge Webs
(L. F. Johnson & Smith, 2006)	(L. F. Johnson & Smith, 2005)	(L. F. Johnson, 2004)

gies are ready for wide-spread, mainstream use. To encourage continuous dialogue on trends, barriers, and exemplar implementations as well as input to future reports, the project maintains the *Horizon Report Wiki* (http://horizon.nmc.org/wiki/Main_Page) for community comment and links to related reports and examples of use.

Technological Megatrends Impacting Education. With six years of trends and over 175 board members who have participated over this time in the yearly rankings, the *Horizon Report* has listed seven technology mega-trends for the decade:

- Communication between humans and machines
- The collective sharing and generation of knowledge
- Games as pedagogical platforms
- Computing in three dimensions
- Connecting people via the network
- The shifting of content production to users
- The evolution of a ubiquitous platform

Of particular interest for the topic of this paper is the 2009 K-12 report, in which the authors noted that, while there was overlap with the study coming from higher education in the same year, “assessment and filtering greatly impact the degree to which some technologies can be adopted in schools” and that this was further complicated by children’s ownership of digital devices (laptops, mobile) and access to these at schools (L. Johnson, Levine, Smith, & Smythe, 2009, p. 4). As a result, technology integration is seen as proceeding at a slower but parallel pace in primary and secondary schools.

Trends and Challenges. Beyond lists of key emerging technologies that learning-focused institutions may use to support or enhance teaching, learning, or creative expression, each *Horizon Report* identifies key trends that can not only challenge educational institutions in adapting new technologies but also potentially disrupt their core missions of teaching and learning. Table 2 summarizes the main trends and challenges from the 2009 K-12 report (L. Johnson, Levine, Smith, & Smythe, 2009, pp. 6–7).

By analyzing thematically the trends and challenges across the multiple annual reports, a more comprehensive picture emerges of the institutional and social issues that are accompanying the technology shifts, a key for both policy and research from a school library media center perspective. Many of these issues parallel the issues raised by the OECD SFT studies. Trends include globalization; an increase in mobile devices and ubiquitous access; and new capabilities for communication, collaboration, and content contributions that are impacting the transmission and production of knowledge. This latter idea became a key in the 2009 *Horizon Report* that relates to continuing themes of information abundance, participatory intelligence, and content authority that appear in the earliest lists of trends in the 2006 report (L. F. Johnson & Smith, 2006).

The notion of collective intelligence is redefining how we think about ambiguity and imprecision. Collective intelligence may give rise to multiple answers, all equally correct, to problems. The notions of collective intelligence and mass amateurization are redefining scholarship as we grapple with issues of top-down control and grassroots scholarship. Today’s learners want to be active participants in the learning process – not mere listeners; they have a need to control their environments, and they are used to easy access to the staggering amount of content and knowledge available at their fingertips. (L. Johnson, Levine, & Smith, 2009, p. 5)

Table 2: "2009 Horizon Report: K-12" Identified Challenges and Trends

Challenges for K-12	Trends in K-12
<ul style="list-style-type: none"> • There is a growing need for formal instruction in key new skills, including information literacy, visual literacy, and technological literacy. • The changing state of pedagogy, curriculum, and teaching practice is an ongoing challenge. • Students are different, but educational practice and the material that supports it is changing only slowly. • Learning that incorporates real life experiences is not occurring enough and is undervalued when it does take place. • There is a growing recognition that new technologies must be adopted and used as an everyday part of classroom activities, but effecting this change is difficult. • A key challenge is the fundamental structure of the K-12 education establishment. • As we enter the digital age, a new system of ethics is called for. 	<ul style="list-style-type: none"> • Technology continues to profoundly affect the way we work, collaborate, communicate, and succeed. • Technology is increasingly a means for empowering students, a method for communication and socializing, and a ubiquitous, transparent part of their lives. • The Web is an increasingly personal experience. • The notion of collective intelligence is redefining how we think about ambiguity and imprecision. • The ways we think of learning environments is changing. • The perceived value of innovation and creativity is increasing. • Web 2.0 applications continue to grow in popularity in a variety of forms but remain hard to bring into schools.

The challenges arise in areas that are also familiar to school library media specialists: information literacy, copyright, and intellectual property; the gap between Net generation students and older style educational content; needs for new kinds of research and leadership; and the speed of change and uncertainty in direction for setting policy. As early as 2006, the *Horizon Report* suggested the following:

The phenomenon of technological "churn" is bringing new kinds of support challenges. Clearly support needs are increasing; each new technology comes with its own requirements for support, of course, while the support needs of established technologies also remain. The very pace of the churn, however, is also creating a backlash effect from those who are asked to change the way they work, often just as they are settling into full productivity. (L. F. Johnson & Smith, 2006, p. 4)

POLICY IMPLICATIONS FOR SCHOOL LIBRARIES

Questions about education are questions about future society. Education policies affect the relative positions of social groups, as well as the life courses of individual students and educators. (Floden, 2009, p. 713)

The complexity of the technical and sociopolitical environment suggested in these futuristic views will have radical impacts on all aspects of school systems. For school library media centers, with their foundations in infor-

mation resources and increasingly digital collections, the pressures will be direct and powerful because of the central role played by school libraries in the school's knowledge economy. The technology shifts may be seen as affordances or disruptive pressures (Mardis & Hoffman, 2005; Mardis, Hoffman, & Marshall, 2008). At the extreme, education's critics are proposing that digital technologies will end school as we know it and school libraries will only be one of the many victims of changing concepts of teaching and learning left behind in the industrial age (Christensen, Horn, & Johnson, 2008).

A key element that emerges in the long-term visions and methods for examining schools and policy framed in the two projects described above is that, even over extended periods, environmental shifts can be dissected and used for reexamining current practice and establishing discourse on policy directions and meaning. As Kapitzke (this volume) has proposed, policies of normalization of power structures and constrained social relations will need to be challenged to meet new demands by users for services and content in support of active and collaborative learning. This will require a critical appraisal of the multitude of internal and external actors, technologies, and organizational structures involved, but data and methods are available for shaping policy discussions. Despite the extreme views of some popular culture authors, the trends of over a decade of evaluation and case studies do not suggest the scenario of a system meltdown. The next decade is likely to be one of continued change but the trends suggest an exciting if bumpy trajectory.

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