ROUTLEDGE

THE GREAT AMERICAN EDUCATION-INDUSTRIAL COMPLEX

Ideology, Technology, and Profit

Anthony G. Picciano and Joel Spring

THE GREAT AMERICAN EDUCATION-INDUSTRIAL COMPLEX

"This book offers readers the alarming facts about the influence that private, for-profit organizations and companies have on education policy and practices in the United States. Providing a cogent and thorough analysis and critique the authors have written an important and useful book in the name of reclaiming education for the good of our nation."

Ron Scapp, College of Mount Saint Vincent, USA

The Great American Education-Industrial Complex examines the structure and nature of national networks and enterprises that seek to influence public education policy in accord with their own goals and objectives.

In the past twenty years, significant changes have taken place in the way various interest groups seek to influence policies and practices in public education in the United States. No longer left to the experience and knowledge of educators, American education has become as much the domain of private organizations, corporate entities, and political agents who see it as a market for their ideas, technologies, and ultimately profits. Picciano and Spring posit that educational technology is the vehicle whereby these separate movements, organizations, and individuals have become integrated in a powerful common entity, and detail how the educational-industrial complex has grown and strengthened its position of influence. Offering a new formulation of an important dimension of the educational dynamic in the United States, this timely, carefully documented, well argued book brings together Picciano's perspective and expertise in the field of technology and policy issues and Spring's in the history and politics of education in a unique critical analysis of the education-industrial complex and its implications for the future.

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PREFACE

This book on the education-industrial complex emerged following a series of collaborations between the two authors. In addition to their many discussions, the authors have together offered seminars at their home institution, the City University of New York Graduate Center, on the topics and issues presented in this book. It is important to mention that the authors approach issues related to education policy, privatization, and technology from different perspectives. Anthony Picciano has spent his career as a proponent of policies and practices that integrate technology and innovation into education at all levels. He has published and lectured extensively on these themes, emphasizing instructional quality, respect for educators, and the primacy of student learning. In coauthoring this book, his goal was to examine the forces that are pushing technology on American education with a certain unbridled enthusiasm and often without enough evaluation. Joel Spring is interested in the social and economic forces shaping global education policy. He is concerned about the rapid growth of global education businesses and their increasing profits gained from public monies spent on schooling.

The book opens in chapter 1 with a general discussion of the components of the education-industrial complex including the powerful role of networks that link education businesses to government policies and the public purse.

Chapter 2 comprises a discussion of the people who move through these networks connecting foundations, think tanks, education businesses, for-profit education trade organizations, international organizations such as the World Economic Forum, and government bureaucracies.

This theme is continued in chapter 3 with an examination of the role of technology in the education-industrial complex and how it might increase the profits of education technology firms regardless of technology's actual benefits.

Chapter 4 examines how government education policies, particularly No Child Left Behind, have promoted the role of for-profit businesses in education including for-profit educational management companies and supplementary education services resulting in the commercialization of school life. Chapter 4 also explores the free market ideology used to justify these policies.

Chapter 5 continues this theme with an examination of the privatization movement in K-12 education, the growth of online businesses selling tutoring services, virtual schools, course management software, and the services providing testing and assessment software. In addition, chapter 5 discusses the increasing privatization of higher education.

In chapter 6, the authors analyze the role of ideology in supporting the expansion of the education-industrial complex. They discuss the organizations that promote certain ideologies, including foundations practicing venture philanthropy such as the Bill and Melinda Gates Foundation, and think tanks such as the American Enterprise Institute. Chapter 7 examines the role of the media in selling education products to schools and homes as well as its lack of critical perspective on education. In this context, chapter 7 discusses the growth of edutainment that is the attempt to make education entertaining through the sale of learning software and games, particularly to homes. In the final chapter, chapter 8, the authors offer some possible solutions to the exploitation of government monies by for-profit companies.

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INTRODUCTION TO THE EDUCATION-INDUSTRIAL COMPLEX AND THE POWER OF NETWORKS

On January 17, 1961, at 8:30 in the evening, Dwight D. Eisenhower delivered his farewell address to a nation that had respected him as its general, president, and leader. While the address evoked many memories of his lifetime of service to his country, the words which are best remembered from that night may be these:

> we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.
>
> (Eisenhower, 1961, p. 1035)

These words were spoken by a soldier prophet who personified the ideals of the U.S. military. He saw weapons and armaments being developed not to secure our country's defense but for the sake of their own development. He saw the associated costs and profits of such weaponry escalating, and feared the temptations that they provided. Fifty years later we know without a doubt that the military-industrial complex is thriving and has a significant influence on the country's military policy and expenditures. In a talk commemorating Dwight D. Eisenhower, Secretary of Defense Robert Gates commented on America's insatiable appetite for more and more weapons:

> Does the number of warships we have, and are building, really put America at risk, when the U.S. battle fleet is larger than the next 13 navies combined—11 of which are our partners and allies?
>
> Is it a dire threat that by 2020, the United States will have only 20 times more advanced stealth fighters than China?

> These are the kinds of questions Eisenhower asked as commander-in-chief. They are the kinds of questions I believe he would ask today.
>
> (Gates, 2010)

The Merriam-Webster Dictionary defines the military-industrial complex as "an informal alliance of the military and related government departments with defense industries that is held to influence government policy." This book is not about the military-industrial complex but a similar alliance that exists today in American education. One of the authors of this book first used the term *education-industrial complex* in 1994 to refer to the networks and alliances that were forming to promote the use of technology and related services in American K-12 education (Picciano, 1994). In that article, he described the education-industrial complex as being in its infancy but contended that within the next ten or more years, a major new thrust would occur that would become "very visible." The banking industry changed from the 1970s to the 1990s with automated-teller machines (ATMs) replacing human tellers for much of the routine processing of customer transactions, such as making deposits to and withdrawals from savings or checking accounts. It was difficult, but not impossible, to imagine an automated teaching machine that would replace the teacher in front of the classroom leading a lesson or delivering a lecture. The teaching machine did not materialize but Internet-based online learning has ushered in a new era of technology in American education.

While technology remains an important part of the education-industrial complex, the sphere of the complex has expanded to include ideological components and an array of for-profit corporations and service providers. The education-industrial complex can now be defined as networks of ideological, technophile, and for-profit entities that seek to promote their beliefs, ideas, products, and services in furtherance of their own goals and objectives. This complex is fueled by significant resources and advocacy provided by companies, foundations, and the media that want to shape American education policy to conform to their own ideals and that also stand to profit significantly from its development. Furthermore, the education-industrial complex is not simply a single entity conspiring to influence education policy. In fact, it is made up of multiple networks that sometimes share agendas but frequently operate independently and compete with one another for contracts and sales of goods and services.

The Components of the Education-Industrial Complex

The education-industrial complex revolves around three major components: ideology, technology, and profit-making (see Figure 1.1). These components interact with one another and are made up of multiple networks and alliances of agencies, organizations, and corporations (see Figure 1.2). In most cases, they overlap in their interests and goals.

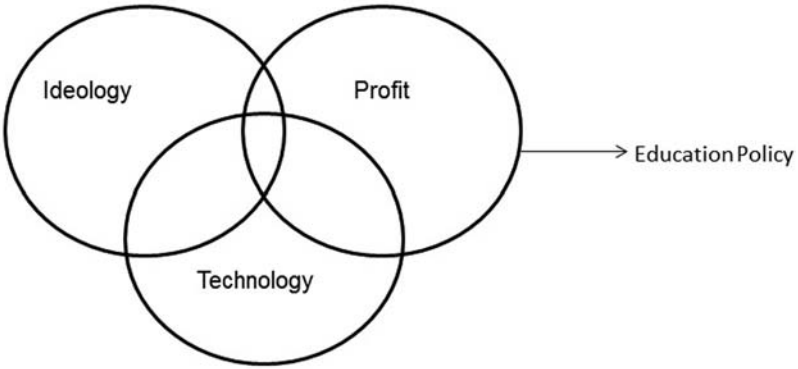

FIGURE 1.1 The Components of the American Education-Industrial Complex

School Governance and Organization

Today, American schools operate on a business model in a network of relationships which decrease voters' control. The schools didn't start out with limited voter input and modeled on a corporate structure. In their early days American schools were locally controlled by elected school boards with state and federal involvement limited to laws creating school districts, general regulations, and the collection of statistics (Tyack, 1974, pp. 37–40). By the end of the 19th

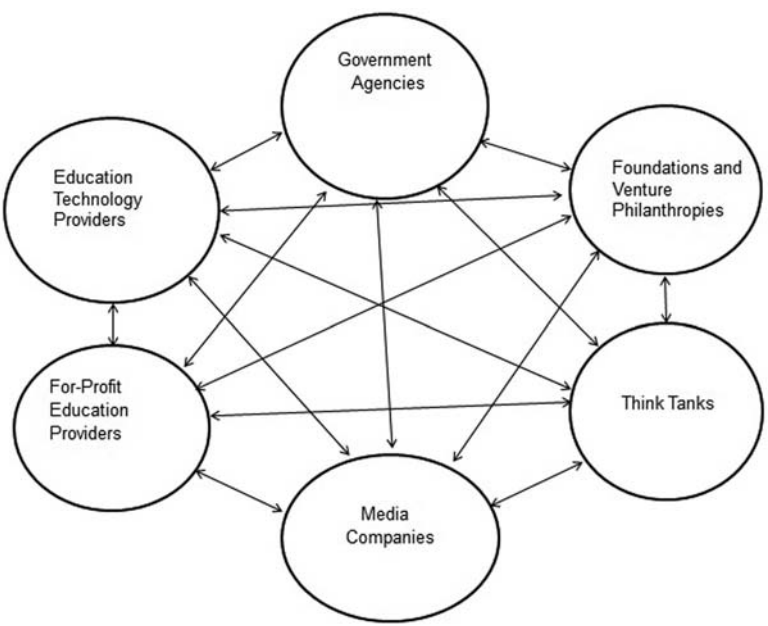

FIGURE 1.2 Networks and Alliances of the American Education-Industrial Complex

century schools adopted a corporate model with school administrators recast as corporate managers and school boards, particularly urban school boards, as boards of directors (Tyack, 1974, pp. 128–144). The new school board organization included fewer members, at-large elections of members, and, in many cases, elections held separately from general state and federal elections. This reorganization favored the election of the wealthy and the socially elite to school boards (Cronin, 1973). Only the "best" citizens, it was argued, should be trusted with the care of school children (Counts, 1927).

After World War II direct voter control of schools began to decline as federal and state governments expanded their influence over local schools through legislation such as the National Defense Education Act (1958) and the Elementary and Secondary Education Act (1965). The increasing centralization of school authority in state legislatures and Congress was challenged by free market ideologies and the reaction of some Christians and Whites displeased with U.S. Supreme Court rulings requiring the end to racial segregation, school prayer, and classroom Bible reading. This disaffected population joined with free marketers to propose school choice. Proponents of free markets wanted competition between schools to improve education and advocated a number of measures, including privatization of public schools, vouchers, and education tax credits. On the surface school choice promised democratically controlled education by letting parents "vote with their feet." Nineteenth century school elections promised democratic representation, while school choice promised direct parental control of their children's education (Spring, 2011, pp. 358–454). Choice certainly sounded democratic but in reality it was compromised by the continual expansion of state and federal involvement in schools.

By the 21st century actual democratic control slipped away as the federal legislation No Child Left Behind opened an era of national curriculum standards and mandated standardized testing. In most cases school choice was limited to choosing the school that best achieved the goals of the state curriculum. In this framework, parental choice did not include actual choice of instructional content for their children (Spring, 2010, pp. 121–127).

Today American schools are entangled in conflicting political and economic ideologies. Free market economists would like to privatize schooling with regulation turned over to the "invisible hand of the marketplace." Those advocating a limited free market approach to schools favor choice of public schools and charter schools that would teach a standardized state curriculum and tests. Clinging to more traditional ideas others seek to limit choice and privatization by asserting that schools should serve public goals and reflect public control. Corporate models of school organization persist even to the extent of opening school administrative ranks to those who have proven successful in the business world.

Those favoring the corporate model of schooling argue that schools should function like a business and that their balance sheets should be driven largely

by accountability as measured by assessments and testing. Decisions should be made based on clearly defined outcomes and driven by efficient data-delivery systems. Students and parents are viewed as customers rather than partners in the common good. In addition, competition is seen as desirable and if a school is not performing, it should be closed down, transformed, or its students be allowed to attend other schools. Furthermore, privatization of public education in the form of government funding, directly or indirectly, of for-profit schools and private education management companies, should be considered as policy options for reforming schools. Associated with this thinking are desires to limit the privileges and influence of teachers' unions. Tenure, seniority rights, union shops, and teacher evaluation procedures are some of the issues that are sources of contention fostered by the educational-industrial complex. Teachers' unions affiliated with the American Federation of Teachers (AFT) and the National Education Association (NEA) became powerful in the 1960s and have tried to maintain their influence by endorsing and funding political candidates at all levels of government. The rational and corporate entities of the educational-industrial complex seek to counter the unions' influence on elections by supporting candidates who agree with their own views. It would be easy to say that the teachers unions typically support the candidates of the Democratic Party and the rational and corporate entities support candidates of the Republican Party, but this is not always the case and a good deal of overlapping exists. Teachers' unions themselves have to be considered players in the educational-industrial complex that vie with rational and corporate ideological entities. They seek to preserve prerogatives that have been negotiated and established in their collective bargaining agreements. For example, a major player in the education-industrial complex is the Democrats for Education Reform (n.d.), a political action committee whose "mission is to encourage a more productive dialogue within the Democratic Party on the need to fundamentally reform American public education centered on matters of greater accountability of schools, principals, and teachers." It has frequently clashed with the NEA and AFT over matters of teacher evaluations and seniority rules.

It should be mentioned that social conservative organizations have also been involved in the education-industrial complex. Rather than being focused on rational or managerial models of decision making, they have focused on issues such as school prayer, sex education, and the teaching of creationism. They have also been active and successful in organizing at the grassroots level to influence education policy. David Brock (2003) observed that fundamentalist Christians had working majorities on perhaps hundreds of school boards around the country where they influence "decisions on everything from curricula to condoms." While acknowledging their presence, this book will focus for the most part on those entities within the education-industrial complex that promote rational decision processes, accountability, school choice, and privatization.

Technology

Another important component of the education-industrial complex is technology. The use of technology in education has been evolving for decades. In higher education, technology has been widely used for research and administration applications since the 1960s. In K-12 education, the implementation of technology for administrative uses has been increasing steadily since the 1970s, but really did not make much of an impact on instructional uses until the 1990s when educational technology software such as simulations, games, and integrated learning systems became popular. The ubiquitous Internet has provided a plethora of educational uses and has lifted the dependence on technology to new heights. This applies to all applications whether administrative or instructional as well as for research and scholarship at the college level. The Internet has spurred new educational applications in online learning, credit-recovery, and data-driven decision making that did not exist 20 years ago. In K-12 education, several million students take online courses every year (Picciano & Seaman, 2010). The Florida Virtual High School alone enrolled more than 122,000 students in its programs in the 2010–2011 academic year. In higher education, fully online programs have become commonplace with over 6 million students or 30% of the total higher education student population taking a fully online course in any given year (Allen & Seaman, 2011). Technology is fundamentally transforming much of education from what it was in the 1990s and is an important aspect of a maturing education-industrial complex.

Steven Brill, a writer who has written extensively on education issues, in his latest book, *Class Warfare: Inside the Fight to Fix America's Schools* (2011), examined school reform from the point of view of those who deeply believe in charter schools and the need to limit the influence of teachers unions. The importance of technology is for the most part not mentioned at all until the very last chapter. In an interview with David Levin, founder of the KIPP schools which are among the most successful charter schools in the country, he discussed how can some of the successful experiments in KIPP schools be scaled up to improve teaching in American education. Levin's answer is enlightening that basically you cannot expect the KIPP model to be scaled up for all schools and teachers. Instead you have to devise support systems that rely extensively on good management and "great technology" (Brill, 2011, pp. 6862–6871).

Believers in the benefits of technology have developed extensive networks at all levels of government and across all political parties to push for greater reliance on and investment in educational technology in education, particularly in K-12. They see technology as something good and feel that the more it is used the better. Given the Internet's ease of use, availability, and general adoption in most public and private endeavors, the technology component of the education-industrial complex is very strong and will continue to grow.

Profit-Making

The third component of the education-industrial complex is made up of entities that profit by providing goods and services to schools and colleges. Textbook publishers, testing and tutoring services, education management companies, and for-profit colleges are significant players in the education-industrial complex. They should not all be looked upon as unscrupulous profiteers, although some could justifiably be characterized as such. To the contrary, many provide valuable services upon which schools and colleges absolutely rely. Corporate America embodies the capitalistic aspect of American culture and has been influencing American institutions since the Revolution. In 1835, Alexis de Tocqueville in his treatise, *Democracy in America*, stated:

> I know of no country, indeed, where the love of money has taken stronger hold on the affections of men and where a profounder contempt is expressed for the theory of the permanent equality of property.
>
> (De Tocqueville, Ch. 3)

All aspects of federal, state, and local political systems including education have been influenced historically, one way or other, by the business sector. However, in the past 20 years, corporate America has become more involved in and has tried to wield more influence on education policy than was ever the case in the past. Major companies and their officers have become outspoken on their views of American education and have geared many of their positions to influence overall education policy but also to benefit their products and services. Corporate executives such as Louis Gerstner Jr. (IBM and the Carlyle Group) have called for and organized education summits. Corporate-affiliated foundations such as the Gates Foundation are investing billions of dollars in school "reform" initiatives. Think tanks such as the American Enterprise Institute and the Heritage Foundation that receive substantial contributions from corporate sponsors regularly present extensive policy papers and briefs. These position papers promulgate the need for changes in education if America is to compete internationally for economic development, new industries, and professional talent. Media conglomerates, such as the Washington Post Company and News International that control television, radio, and Internet services as well as invest in educational services, promote products and services beneficial to their investments. The New York Times Company holds conferences on "Schools for Tomorrow" that focus on "bringing technology into the classroom." In a recent such conference 37 speakers were listed on the program 29 of whom represented corporations, advocacy organizations, and technology suppliers. Eight speakers were from colleges and universities, most of whom were directors of technology centers or initiatives. Not one individual on the program was a current public school teacher or administrator (*New York Times*, 2011).

In sum, the education-industrial complex is a series of networks and alliances that strive to influence the creation or modification of policies at all levels of government consistent with views and ideas that support extensive uses of technology and are profitable for its members.

Points of Influence—American Education Policy

The points of influence in the education-industrial complex are different from those in the military-industrial complex. The policy leadership of the military and defense organizations has always been centralized in the federal government, the Pentagon being the symbol of this central leadership. Industries and contractors serving the military interact with the federal government and officials appointed or elected to national office. Most senior-level appointed officials in the military are based in Washington DC. Members of the House and Senate, while they have offices in their home districts and states, conduct much of their business in offices in Washington, DC. In sum, the main points of policy formulation for the American military are generally accepted to exist in the nation's capital.

The education-industrial complex operates in a much more dispersed manner. While the U.S. Department of Education (USDOE) is a most important point of influence in education policy formulation, it is not the only one. The USDOE is relatively new, beginning operation in 1980, while the 50-state education departments and the 15,000 school districts have been in existence much longer and maintain significant influence in the development of policy and the allocation of resources in the nation's schools. Public and private colleges and universities operate as independent entities with oversight by state education departments and independent, mostly regional, accrediting bodies. In terms of K-12 financial policy, the federal government provides approximately 8 to 9% of funding with the remainder provided by the states and local school districts (Aud et al., 2011). The governing organizations of local school districts are not very consistent. The school district of Hawaii for instance encompasses the entire state. In Maryland, every school district is managed and operates at the county or municipal level. In New York, the vast majority of its 800 school districts operate independently of any other county or municipal governing body. With so many school districts, many important policy decisions including the selection of textbooks, the purchase of educational software, and the selection of testing services are made by school board members, most of whom are members of the community and are influenced primarily by parents, neighbors, and other constituents. At this level, an active Parent-Teacher Association (PTA) and even a local collective-bargaining agency can wield significant influence. With so many stakeholders dispersed over wide geographic areas, the mass media can become important in swaying decisions about education policy. In New York, there were substantial mass media campaigns in 2011 for

and against the expansion of the number of charter schools that can operate in the state. In addition to promoting the movie, *Waiting for Superman*, pro charter school organizations held a Charter School Advocacy Day on February 7, 2011, to influence state legislators. Opponents to the expansion of charter schools such as the United Federation of Teachers (UFT) and the National Association for the Advancement of Colored People (NAACP) mounted their own anti-charter school media campaigns in response.

An important aspect of the formulation of education policy, given the many points of influence, is the struggle for power among the policy makers. The USDOE since its inception has been trying to wield more influence on education policies throughout the country. Using financial aid as incentives, it has sought common core curricula and standards, new teacher evaluation systems, and the establishment of school "report cards." Some states have supported the USDOE in this respect, but others have resisted this intrusion and invoked the U.S. Constitution which reserves to the states the right and power to govern education.

The Power of Networks

The education-industrial complex is made up of a series of networks that evolve and grow in many ways. Personal contacts, regular meetings, social gatherings, and associations in formal organizations are examples of network behavior. However, over the past 20 years, technology in the form of digital communications as exemplified by the Internet and its social media capabilities, has added a whole new dimension to the concept of networking. Far beyond their ability to move data more rapidly throughout an organization, networks have profound effects on how people work with one another, on how the cohesion of a group can be maintained, and ultimately on accomplishing the group's goals and objectives. Watts (2003) and Barabasi (2002) have studied the effects of networks on various people-intensive processes. What they found is that networks enable individual behavior to aggregate into collective behavior. Something special happens when individual entities such as nodes, components, and people, are able to interact to form larger wholes such as networks, systems, and communities. Furthermore, the "interaction effect" or collective behavior may result in a far more productive environment than individuals acting by themselves; one individual working with another individual does not simply comprise two individuals but a third more powerful collaborating entity which can extend the benefits beyond two. Modern data communications networks now make it possible for many individuals to share ideas, work with one another, and organize collective behavior to achieve common goals and objectives. Perhaps one of the best examples of this is the revolution that occurred in Egypt in January 2011. Internet-based networking and social media such as Facebook, Twitter, and text-messaging were important tools of the revolution's

organizers. These tools sped up the process by helping to organize the revolutionaries, to transmit their message and to galvanize support. In a piece that appeared in *Wired Magazine*, Sascha Meinrath, director of the New America Foundation's Open Technology Initiative commented:

> In the same way that pamphlets didn't cause the American Revolution, social media didn't cause the Egyptian revolution…. Social media have become the pamphlets of the 21st century, a way that people who are frustrated with the status quo can organize themselves and coordinate protest, and in the case of Egypt, revolution.
>
> (cited in Gustin, 2011)

While most observers saw the Egyptian revolution as a sudden, spur of the moment event, insiders such as Lawrence Pintak (2011), author of *The New Arab Journalist*, pointed out in a CNN interview that despite the speed with which the Mubarak regime fell, bloggers and digital activists have been working toward reform in the Middle East for years. "This is a digital revolution that has been happening for quite a while…" (Gustin, 2011). In response, Egyptian President Hosni Mubarak attempted to cut off Internet access to Facebook, Twitter, laptops, and smartphones. Iran and other countries in the Middle East and elsewhere have also been using Internet tools to monitor antigovernment activity (Shane, 2011). Likewise the networks of the education-industrial complex are attuned to the new social media technologies and have been using them extensively in conjunction with traditional people-networking to influence what happens in American education.

A Brief Look at the State of American Education

All of the important growth indicators (enrollment, revenues and expenditures, teachers and employees, number of graduates), show that American education is at an all-time high and is continuing to grow. The U.S. Department of Education, *Digest of Education Statistics* (2010) shows that enrollment in American education at all levels (pre-K through graduate school) in 2010 is almost 76 million students and it is projected to increase to more than 82 million students by 2019, with 58.5 million in K-12 schools and 23.5 million in postsecondary education. The increase is due primarily to the expected increase in the size of the national school-age population and there is nothing on the horizon that will change this projection.

In terms of teachers and other support staff, approximately 10 million people were employed in education in 2010 with 7 million employed in K-12 and 3 million in postsecondary education. If we combine student enrollment with the number of individuals employed, the combined number of people directly involved in education is 86 million, or about 27% of the total population (312 million people) in the United States.

With respect to the educational attainment of the population between 2000 and 2010, the percentage of the adult population 25 years of age and over who had completed high school rose from 84% to 87%, and the percentage of adults with a bachelor's degree increased from 26% to 30%. High school completers include those people who graduated from high school with a diploma, as well as those who completed high school through equivalency programs (i.e., GED programs). The percentage of young adults (25- to 29-year-olds) who had completed high school in 2010 was about the same as it was in 2000 (89 and 88%, respectively). The percentage of young adults who had completed a bachelor's degree increased from 29% in 2000 to 32% in 2010.

Funding the American education enterprise in 2010 reached in excess of $1.1 trillion with $650 billion provided for K-12 schools and $461 billion for postsecondary education. To provide a comparison, the military budget for the United States was $685 billion in 2010. Assuming that the level of expenditures match the growth in enrollment, the total cost for education at all levels will be in excess of $1.2 trillion by 2019. Over the next 10 years, more than $11 trillion will be spent on education.

The size and scope of the American education enterprise is enormous and far-reaching. It is growing and supports many individuals, businesses, and other enterprises. While the numbers and projections paint the picture of a vibrant growing system, there are many concerns about the quality of American education. Student performance on international assessments, high school graduation rates, time to degree at the postsecondary level, funding equity, and the cost of education have been well-documented issues that tend to dominate any discussion of American education and are an important part of the story that underlies the American education-industrial complex.

Organization of this Book

It is fair to say that many others including Henry Giroux, Stanley Aronowitz, Kenneth Saltman, and Kevin Kinser have written about particular parts of the education-industrial complex without naming it as such. It is our intention to offer a more complete critique of this complex by thoughtfully spelling out the full connections to be made and the consequences of such connections.

This book contains eight chapters designed to explore the American education-industrial complex. This chapter provides an introduction, definition, and background for the further exploration of the education-industrial complex. It draws upon the military-industrial complex, which is older and more established, as a way to introduce the concept of networks of ideological, technological, and for-profit entities that seek to promote their beliefs, ideas, products and services in accord with their own goals and objectives.

Chapter 2, "The Flat World as Shaped by the Shadow Elite," draws on Janine Wedel's framework of the "shadow elite" as used in her (2009) book.

This chapter will provide a template that tracks those who move between government, private companies, and other organizations promoting and influencing policies and practices related to American education. Specific examples will be drawn from companies such as textbook publishers, software providers, and other education services designed to operate at significant profit for their stockholders and parent companies.

Chapter 3 looks at the state of "Technology in American Education." Technology is a major aspect of the education-industrial complex and has facilitated its growth and operations. Billions of dollars are expended each year on educational technology, yet conclusive benefits of its uses are questioned. The advent of the Internet and online instruction has seen significant expansion of the use and investment in technology at all levels of education. This chapter will review the state of technology as applied in K-12 schools and colleges, focusing specifically on the growing development and demand for online learning environments.

Chapter 4, "Corporate Influences: No Child Left Behind, Privatization, and Commercialization," examines the role of corporate America in the education-industrial complex. Corporate America is a major player in the education-industrial complex, whether publishing textbooks, selling consulting services, or running for-profit educational entities. As such, it stands to benefit significantly from policies that promote the use of their products and services. Education in America has become big business with enormous expenditures to acquire the people, products, and services that make it function. While most businesses provide necessary and important products and services needed in schools and colleges, others are questionable revenue generators for private investors. This chapter will examine the role and objectives of corporations as major operators in the education-industrial complex.

Chapter 5 takes a close look at "Profits, Products, and Privatization." An important cornerstone of the education-industrial complex is the movement to privatization of public schools and colleges and their replacement by for-profit entities. The use of vouchers in K-12 education under the ideological guise of increasing competition and school choice are prime examples. For-profit colleges and universities have evolved as major players as well as competitors for public financial aid programs. This chapter will examine for-profit entities and compare their contribution to the public good with their private gain.

Chapter 6 considers the role of "Foundations and Think Tanks: Policies and Ideas Supporting the Educational-Industrial Complex," in the education-industrial complex. Funding many of the initiatives within the education-industrial complex are private foundations that have used their resources to "reform" education to conform to their own views. These foundations are further supported by think tanks, some of which are completely partisan in their views, the positions they take, and the studies that they publish. This chapter will specifically look at the role of several of the major foundations and think

tanks that fund and promote the ideas of the players in the education-industrial complex.

Chapter 7 examines, "Media: News Media, Edutainment, and the Education-Industrial Complex," in supporting the education-industrial complex. The Internet, talk radio, and cable news networks provide platforms for sending messages that support the ideology and positions of the education-industrial complex to the public. The media become especially important given the dispersed nature of the governance of American education that exists in state and local bodies as well as in Washington DC. In this chapter, a "fair and balanced" look at how the media function as indoctrinating voices for the education-industrial complex will be examined.

Chapter 8, "Conclusion: 'A Nation at Risk' Redux," will integrate the ideas and positions established in the preceding chapters. It will ask a fundamental question about the mission of the education system we want in this country: Is it one based on capitalist principles of competition and profit-making or is it one based on the need to nurture students and their minds? It concludes that the nation is indeed once again at risk, not because of the quality of our schooling but because we may be selling our children's education out to private interests.

References

Allen, I. E., & Seaman, J. (2011). *Going the distance: Online education in the United States, 2011.* Babson College Survey Research Group and The Sloan Consortium. Retrieved from http://www.babson.edu/Academics/centers/blank-center/global-research/Pages/babson-survey-research-group.aspx

Aud, S., Hussar, W., Kena, G., Bianco, K., Frohlich, L., Kemp, J., & Tahan, K. (2011). *The condition of education 2011* (NCES 2011-033). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Barabasi, A. L. (2002). *Linked: The new science of networks*. Cambridge, MA: Perseus.

Brill, S. (2011). *Class warfare: Inside the fight to fix America's schools* [Kindle version]. New York: Simon & Schuster.

Brock, D. (2003). *Blinded by the right*. New York: Crown.

Counts, G. (1927). *The social composition of boards of education: A study of the social control of public education*. Chicago: University of Chicago Press.

Cronin, J. (1973). *The control of urban schools: Perspectives on the power of educational reformers*. New York: Free Press.

Democrats for Education Reform. (n.d.). Retrieved from http://www.dfer.org/about/

De Tocqueville, A. (1835). *Democracy in America*. Retrieved from http://xroads.virginia.edu/~HYPER/DETOC/1_ch03.htm

Eisenhower, D. E. (1961). Farewell address. *Public papers of the presidents* (pp. 1035–1040). Retrieved from http://www.h-net.org/~hst306/documents/indust.htm

Gates, R. M. (2010, May 8). *Remarks on defense spending*. Retrieved from http://www.defense.gov/speeches/speech.aspx?speechid=1467

Gustin, S. (2011, February 11). Social media sparked, accelerated Egypt's revolutionary fire. *Wired Magazine*. Retrieved from http://www.wired.com/epicenter/2011/02/egypts-revolutionary-fire/

Merriam-Webster Online Dictionary. Military-industrial complex. Retrieved from http://www.merriam-webster.com/dictionary/military-industrial

New York Times. (2011). Schools for tomorrow—Bringing technology into the classroom. Retrieved from http://www.nytschoolsfortomorrow.com/speakers.html

Picciano, A. G. (1994). Technology and the evolving education-industrial complex. *Computers in the Schools, 11*(2), 85–101.

Picciano, A. G., & Seaman, J. (2010). *Class connections: High school reform and the role of online learning*. Babson Survey Research Group, Babson College. Retrieved from http://www3.babson.edu/ESHIP/research-publications/upload/Class_connections.pdf

Pintak, L. (2011). *The new Arab journalist*: Mission and identity in a time of turmoil. London: I.B. Tauris & Co. Ltd.

Shane, S. (2011, January 29). Spotlight again falls on Web tools and change. *New York Times*. Retrieved from http://www.nytimes.com/2011/01/30/weekinreview/30shane.html?_r=1&nl=todaysheadlines&emc=tha26

Spring, J. (2010). *Political agendas for education* (4th ed.). New York: Taylor & Francis.

Spring, J. (2011). *The American school: A global context from the Puritans to the Obama Era, eighth edition*. New York: McGraw-Hill.

Tyack, D. (1974). *The one best system: A history of American urban education*. Cambridge, MA: Harvard University Press.

U.S. Department of Education, National Center for Education Statistics. (2010). *Digest of education statistics*. Retrieved from http://nces.ed.gov/programs/digest/d10/

Watts, D. (2003). *Six degrees: The science of a connected age*. New York: Norton .

Wedel, J. (2009). *Shadow elite: How the world's new power brokers undermine democracy: Government, and the free market*. New York: Basic Books.

Introduction To the Education-Industrial Complex and the Power of Networks

Allen, I. E. , & Seaman, J. (2011). *Going the distance: Online education in the United States, 2011* .Babson College Survey Research Group and The Sloan Consortium. Retrieved from http://www.babson.edu/Academics/centers/blank-center/global-research/Pages/babson-survey-research-group.aspx

Aud, S. , Hussar, W. , Kena, G. , Bianco, K. , Frohlich, L. , Kemp, J. , & Tahan, K. (2011). *The condition of education 2011* (NCES 2011-2033). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Barabasi, A. L. (2002). *Linked: The new science of networks.* Cambridge, MA: Perseus.

Brill, S. (2011). *Class warfare: Inside the fight to fix America's schools* [Kindle version]. New York: Simon & Schuster.

Brock, D. (2003). *Blinded by the right.* New York: Crown.

Counts, G. (1927). *The social composition of boards of education: A study of the social control of public education* . Chicago: University of Chicago Press.

Cronin, J. (1973). *The control of urban schools: Perspectives on the power of educational reformers.* New York: Free Press.

Democrats for Education Reform. (n.d.). Retrieved from http://www.dfer.org/about/

De Tocqueville, A. (1835). *Democracy in America* . Retrieved from http://xroads.virginia.edu/~HYPER/DETOC/1_ch03.htm

Eisenhower, D. E. (1961). Farewell address. *Public papers of the presidents* (pp. 1035–1040). Retrieved from http://www.h-net.org/~hst306/documents/indust.htm

Gates, R. M. . (2010, May 8). *Remarks on defense spending* . Retrieved from http://www.defense.gov/speeches/speech.aspx?speechid=1467

Gustin, S. . (2011, February 11). Social media sparked, accelerated Egypt's revolutionary fire. *Wired Magazine* . Retrieved from http://www.wired.com/epicenter/2011/02/egypts-revolutionary-fire/

Merriam-Webster Online Dictionary . Military-industrial complex. Retrieved from http://www.merriam-webster.com/dictionary/military-industrial

New York Times . (2011). Schools for tomorrow—Bringing technology into the classroom. Retrieved from http://www.nytschoolsfortomorrow.com/speakers.html

Picciano, A. G. (1994). Technology and the evolving education-industrial complex. *Computers in the Schools, 11*(2),85–101.

Picciano, A. G. , & Seaman, J. (2010). *Class connections: High school reform and the role of online learning.* Babson Survey Research Group, Babson College. Retrieved from http://www3.babson.edu/ESHIP/research-publications/upload/Class_connections.pdf

Pintak, L. (2011). *The new Arab journalist*: Mission and identity in a time of turmoil. London: I.B. Tauris & Co Ltd. .

Shane, S . (2011, January 29). Spotlight again falls on Web tools and change. *New York Times* . Retrieved from http://www.nytimes.com/2011/01/30/weekinreview/30shane.html?r=1&nl=todaysheadlines&emc=tha26

Spring, J. (2010). *Political agendas for education* (4th ed.). New York: Taylor & Francis.

Spring, J. (2011). *The American school: A global context from the Puritans to the Obama Era, eighth edition.* New York: McGraw-Hill.

Tyack, D. (1974). *The one best system: A history of American urban education* . Cambridge, MA: Harvard University Press.

U.S. Department of Education, National Center for Education Statistics . (2010). *Digest of education statistics* . Retrieved from http://nces.ed.gov/programs/digest/d10/

Watts, D. (2003). *Six degrees: The science of a connected age* . New York: Norton.

Wedel, J. (2009). *Shadow elite: How the world's new power brokers undermine democracy: Government, and the free market.* New York: Basic Books.

The Flat World as Shaped by the Shadow Elite

Bill and Melinda Gates Foundation . (2011, April 27). Gates foundation announces portfolio of innovative grants to develop new teaching and learning tools that support teachers and help students. Retrieved May 1, 2011, from Bill and Melinda Gates Foundation: http://www.gates-foundation.org/press-releases/Pages/common-core-tools-110427.aspxBroadCenter. (2011). *Record number of Broad Residents take on local, state, federal roles* . Retrieved from http://broadresidency.org/asset/0-tbr%20national%20press%20release.pdf

Broad Foundation . (2011). *About us.* Retrieved from http://www.broadfoundation.org/about_broads.html

Cisco . (2011, September). Welcome to the human network. Retrieved from http://www.cisco.com/web/IN/thehumannetwork/index.html

Digital Youth Network . (2011). *About us*. Retrieved from http://www.digitalyouthnetwork.org/1-about/pages/1-overview

Dillon, S. . (2011, May 21). Behind grass-roots advocacy, Bill Gates. *New York Times*, p. 1.

Dutta, S. a. . (2011). *The global information technology report 2010–2011.* Geneva, Switzerland: World Economic Forum.

Dutta, S. , Mia, I. , & Geiger, T. (2011). The network readiness index 2010. In S. a. Dutta, *The information technology report 2010–2011* (p. 3). Geneva, Switzerland: World Economic Forum.

Fang, L. (2011, November 16). How online learning companies bought American schools. Retrieved from http://www.thenation.com/print/article/164651/how-online-learning-companies-bought-americas-schools

Florida Virtual School . (2011). *About us.* Retrieved from http://www.flvs.net/areas/aboutus/Pages/default.aspx

Forbes . (2010). The world's billionaires #132 Eli Broad. Retrieved from http://www.forbes.com/lists/2010/10/billionaires-2010_Eli-Broad_599L.html

Foundation for Excellence in Education . (2011a). *Digital learning now.* Retrieved from http://www.excelined.org/DOCS/Digital%20Learning%20Learning%Now%20Report%20For%Governors.pdf

Foundation for Excellence in Education . (2011b). *Meet the sponsors.* Retrieved from http://www.excelined.org/Pages/Programs/Excellence_in_Action/Meet_the_Sponsors.aspx

Gates Foundation . (2011, April 27). *Gates foundation announces portfolio of innovative grants to develop new teaching and learning tools that support teachers and help students* . Retrieved from http://www.gatesfoundation.org/press-releases/Pages/common-core-tools-110427.aspx

Hagström, M. (2011). Transformation 2.0 for an effective social strategy. In S. a. Dutta, *The global information technology report 2010–2011* (pp. 91–99). Geneva, Switzerland: World Economic Forum.

iNACOL . (2009a, July). *Advocacy: K-12 online learning: A smart investment NOW more than ever.* Retrieved from http://www.inacol.org/advocacy/

iNACOL . (2009b, August). *Advocacy: What can Congress and the federal government do to promote quality online learning opportunity for all students?* Retrieved from http://www.inacol.org/advocacy/

iNACOL .(2011a). *iNACOL President and CEO* . Retrieved from http://www.inacol.org/about/president.php

iNACOL . (2011b). *Members.* Retrieved from http://www.inacol.org/membership/members.php

Institute of Play . (2011). *About us.* Retrieved from http://www.instituteofplay.org/about/
IQuity . (2011). *Welcome to IQuity*. Retrieved from IQuity: http://www.iq-ity.com/index.aspx
Knewton . (2011). *About Knewton*. Retrieved from Knewton: http://www.knewton.com/about
No Child Left Behind Act of 2001. Retrieved from http://www.ed.gov/policy/elsec/leg/esea02/107-110.pdf
OECD. (n.d.). *The starter pack: Futures thinking in action*. Retrieved from http://www.oecd.org/document/33/0,3343,en_2649_35845581_38981601_1_1_1_1,00.html
Pearson . (2011a). *Education: Around the business.* Retrieved from http://www.pearson.com/about-us/education/around-the-business
Pearson . (2011b). *Pearson at a glance.* Retrieved from http://www.pearson.com/about-us/pearson-at-a-glance
Pearson Education . (2011c). *Pearson education.* Retrieved from http://www.pearson.com/about-us/education
Pearson Education . (2011a). *Home.* Retrieved from http://www.pearsonfoundation.org
Pearson Foundation . (2011b, April 27). *Pearson foundation partners with Bill and Melinda Gates Foundation to create digitial learning programs* . Retrieved fro http://www.pearsonfoundation.org/pr/20110427-pf-partners-with-gates-foundation-to-create-digital-learning-programs.html
Quest Atlantis . (2011). *Welcome.* Retrieved from http://atlantis.crlt.indiana.edu/site/view/Researchers#58
Reasoning Mind . (2011). *About us.* Retrieved from http://www.reasoningmind.org/?mv=5
Reasoning Mind Technology Sponsors . (2011). *Technology sponsors.* Retrieved from http://www.reasoningmind.org/?mv=5
Rothkopf, D. (2008). *Superclass: The global power elite and the world they are making* . New York: Farrar, Straus & Giroux.
SAS .(2011a). *About.* Retrieved from http://www.sas.com
SAS .(2011b). *Analytics.* Retrieved from http://www.sas.com/technologies/analytics
SAS .. (2011c). *Education.* Retrieved from http://www.sas.com/industry/education/index.html
SAS EVAAS . (2011a). *SAS EVAAS for K-12.* Retrieved from http://www.sas.com/govedu/edu/k12/evaas/index.html#s1=1
SAS EVASS . (2011b). *SAS EVAAS for k-12: System Requirements.* Retrieved from http://www.sas.com/govedu/edu/k12/evaas/index.html#s1=4
Smith, E. (2009, January 8). *Florida Department of Education: Florida virtual school as school choice* . Retrieved from http://info.fldoe.org/docushare/dsweb/Get/Document-5250/dps-2009-07.pdf
Software & Information Industry Association . (2011a). *About SIIA.* Retrieved from http://www.siia.net/index.php?option=com_content&view=article&id=159&Itemid=6
Software & Information Industry Association . (2011b). *SIIA member programs & resources* . Retrieved from http://www.siia.net/index.php?option=com_content&view=article&id=64&Itemid=23
Software & Information Industry Association-Education . (2011). *Education and the workforce* . Retrieved from http://siia.net/index.php?option=com_content&view=article&id=641:education-a-workforce-development&catid=66:public-policy-overview&Itemid=710
Sorkin, A. . (2011, January 24). A hefty price for entry to Davos. Retrieved from http://dealbook.nytimes.com/2011/01/24/a-hefty-price-for-entry-to-davos/?hp
Spring, J. (2011a). *The American school: A global context from the Puritans to the Obama era* (8th ed.). (chapters 6, 10, 13, 15). New York: McGraw-Hill.
Spring, J. (2011b). *The politics of American education* . New York: Routledge.
SRI. . (2011). *About us.* Retrieved from http://www.sri.com/about/

Stanford Center for Innovations in Learning . (2011). Roy Pea. Retrieved from http://scil.stan-ford.edu/about/staff/bios/pea.html
Teachscape . (2011). Board of directors. Retrieved from http://www.teachscape.com/html/ts/nps/board_of_directors.html
Trip, G. . (2011, April 26). Jeb Bush leads broad push for educational change with “Florida Formula.” Retrieved from http://www.nytimes.com/2011/04/27/education/27bush.html?ref=todayspaper
U.S. Department of Education . (2010). *National education technology plan 2010: Transforming American education: Learning powered by technology.* Washington, DC: Author.
U.S. Department of Education . (2011a). *James H. Shelton III, Assistant Deputy Secretary for Innovation and Placement—biography.* Retrieved from http://www2.ed.gov/news/staff/bios/shelton.html
U.S . Department of Education. (2011b, May). *Karen Cator, Director of the Office of Educational Technology—biography* . Retrieved from http://www2.ed.gov/news/staff/bios/cator.html
VIP Tone . (2011). *About.* Retrieved from http://www.viptone.com/about.html
Walton Foundation . (2011). K-12 Education reform. Retrieved from http://www.waltonfamily-foundation.org/educationreform/index.asp
Wedel, J. (2009). *Shadow elite: How the world’s new power brokers undermine democracy* . New York: Basic Books.
Winerip, M. . (2011, September 19).When free trips overlap with commercial purposes. *New York Times* , p. A15.
World Economic Forum . (2011a). *About us: History.* Retrieved from http://www.weforum.org/history
World Economic Forum . (2011b). *Education.* Retrieved from http://www.weforum.org/issues/education
World Economic Forum . (2011c). *Empowering people and transforming society: The world economic forum’s technology pioneers 2011.* Geneva, Switzerland: World Economic Forum.
World Economic Forum MENA . (2010). *Global education initiative: MENA roundtable on entrepreneurship education Marrakech, Morocco.* Geneva, Switzerland: World Economic Forum.
World Economic Forum New Champions . (2011). *New solutions: Closing the education gap.* Retrieved from http://www.weforum.org/sessions/summary/new-solutions-closing-education-gap.pdf

Technology in American Education

Allen, I. E. ,… J. Seaman , (2011). *Going the distance: Online education in the United States, 2011* . Babson College Survey Research Group and The Sloan Consortium. Retrieved from http://www.babson.edu/Academics/centers/blank-center/global-research/Pages/babson-survey-research-group.aspx
Bender, B. (December 26, 2010). In large numbers, and with few rules, retiring generals are taking lucrative defense-firm jobs. *The Boston Globe.* Retrieved from http://articles.boston.com/2010-12-26/news/29319170_1_generals-defense-firms-private-sector
Campuzano, L. , Dynarski, M. , Agodini, R. , & Rall, K. (2009). *Effectiveness of reading and mathematics software products: Findings from two cohorts* (NCEE 2009-4041). Washington, DC: U.S. Department of Education, Institute of Education Sciences.
Christ, L. (March 16, 2011). More schools passing up DOE database. NY1. Retrieved from http://www.ny1.com/content/news_beats/education/135696/more-schools-passing-up-doe-database-part-1

Christensen, C. (2011). *The innovator's dilemma: The revolutionary book that will change the way you do iBusiness.* New York: HarperBusines.
Christensen, C. M. , Horn, M. B. , & Johnson, C. W. (2008). *Disrupting class: How innovation will change the way the world learns.* New York: McGraw-Hill.
Cuban, L. . (2000, February 23). Is spending money on technology worth it? *Education Week, 19*(24), 42.
Cuban, L. (2001). *Oversold and underused.* Cambridge, MA: Harvard University Press.
Dynarski, M. , Agodini, R. , Heaviside, S. , Novak, T. , Carey, T. , Campuzano, L. , … Sussex, W. . (2007). *Effectiveness of reading and mathematics software products: Findings from the first student cohort* (NCEE 2007-4005). Washington, DC: U.S. Department of Education, Institute of Education Sciences.
Florida, R. , Kaimal, G. , Oblinger, D. , & Blessing. L. (2003). How generations X and Y (Millen-nials) will reshape higher education. Society for College and University Planning, Virtual Seminar. Retrieved from http://www.scup.org/profdev/archive_cds/gen_x-y.html
Gotbaum, B. (2009). ARIS on the side of caution: A survey of New York City principals on the city's accountability computer system. Retrieved from http://publicadvocategotbaum.com/pages/documents/ARISFINAL.pdf
Graham, C. , & Robinson, R. (2007). Realizing the transformational potential of blended learning: Comparing cases of transforming blends and enhancing blends in higher education. In A. G. Picciano & C. Dzuiban (Eds.), *Blended learning: Research perspectives.* Needham, MA: The Sloan Consortium.
Hudson Institute . (2011). Leadership. Retrieved from http://www.hudson.org/learn/index.cfm?fuseaction=hudson_leadership
Kain, E. D. (2011). New York State Dept. of Education awards $27M no-bid contract to Murdoch-owned Wireless Generation. *Forbes* . Retrieved from http://blogs.forbes.com/erik-kain/2011/06/09/new-york-state-dept-of-education-awards-27m-no-bid-contract-to-news-corp-company/
Keilman, J. (April 24, 2011). Online learning for Illinois high schoolers inspires praise, suspicion. *Chicago Tribune* . Retrieved from http://articles.chicagotribune.com/2011-04-24/news/ct-met-onlineclass-20110424_1_effectiveness-of-online-courses-innosight-institute-online-classes
Lovett, K. (August 27, 2011). State hacks ed contract with Murdoch firm. *The New York Daily News*, p.21.
Nagel, D. (May 19, 2010). Education IT to grow $2.5 billion. *Campus Technology.* Retrieved from http://campustechnology.com/articles/2010/05/19/education-it-to-grow-2.5-billion.aspx
Nagel, D. (September 18, 2008). Education technology spending to top $56 billion by 2012. *T.H.E. Journal.* Retrieved from http://www.thejournal.com/articles/23299
National Commission on Excellence in Education . (1983). *A nation at risk* . Washington, DC: Author.
New York Public School Parents . (June 2011). Another super-mugging? NY State Education Department to award $27 no-bid contract to Joel Klein and Rupert Murdoch. Retrieved from http://nycpublicschoolparents.blogspot.com/2011/06/another-super-mugging-ny-state.html
Otterman, S. . (2011, March 29). In City schools, tech spending to rise despite cuts. *New York Times* . Retrieved from http://www.nytimes.com/2011/03/30/nyregion/30schools.html
Park, J. , & Staresina, L. . (2004, May 6). Tracking U.S. trends. *Education Week, 23* (35), 64–67.
Perelman, L. (1992). *School's out: Hyperlearning, the new technology, and the end of education.* New York: Morrow.
Phillips, A. M. (2012, January 23). Audit finds limited use of City's data system. *New York Times* . Retrieved from http://www.nytimes.com/schoolbook/2012/01/23/citys-data-system-is-being-underused-liu-audit-

finds/?scp=1…sq=john%20liu%20ARIS…st=cse
Picciano, A. G. , & Seaman, J. (2010). *Class connections: High school reform and the role of online learning* . Needham, MA: Babson College Survey Research Group. Retrieved from http://www3.babson.edu/ESHIP/research-publications/upload/Class_connections.pdf
Raney, M. J. . (1997, Fall). Interview with Lewis Perelman. *Technos Quarterly, 6*(3). Retrieved from http://www.ait.net/technos/tq_06/3perelman.php
Richtel, M. (September 3, 2011). In classroom of the future, stagnant scores. *New York Times*. Retrieved from http://www.nytimes.com/2011/09/04/technology/technology-in-schools-faces-questions-on-value.html?pagewanted=6…nl=todaysheadlines&emc=tha2
Rogers, M. , Oblinger, D. , & Hartman, J. (2007). Education in exponential times: How technology-enabled change is reshaping higher education. Society for College and Univer-sity Planning Webcast. Retrieved from www.lib.washington.edu/about/vision2010/2007initiativesupdates/Vision2010Undergraduates.ppt
Santos, F . (2010, November 23). News Corp., after hiring Klein, buys technology partner in a city schools project. *New York Times* . Retrieved from http://www.nytimes.com/2010/11/24/nyregion/24newscorp.html
Sarason, S. (1995). *Parental involvement and the political principle: Why the existing governance structure of schools should be abolished* . San Francisco, CA: Jossey-Bass.
Sherry, M. (1990). An EPIE Institute report: Integrated instructional systems. *Technological Horizons in Education, 18* (2), 86–89.
Sourcewatch . (2010, December 1,). Hudson Institute. Retrieved from http://www.sourcewatch.org/index.php?title=Hudson_Institute
U.S. Department of Education, Office of Educational Technology . (2010). *Transforming American education: Learning powered by technology* . Washington, DC: Author.
U.S. Department of Education, Office of Planning, Evaluation, and Policy Development . (2010). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of Online learning studies,* Washington, DC: Author.

Corporate Influences

Adarle, S. (January 27, 2012). Judge orders Newark to release document list on Facebook dona-tion. *NewarkPatch.* Retrieved from http://newarknj.patch.com/articles/judge-orders-newark-to-release-documents-on-facebook-donation.
BOOK IT! (2012). *You are your child's first reader* . Retrieved from http://www.bookitprogram.com/Parents/about.asp
Chronicle of Philanthropy (2012, January 29). Consultants top recipients so far of Newark Facebook money. Retrieved from http://philanthropy.com/blogs/philanthropytoday/consultants-top-recipients-so-far-of-newark-facebook-money/41537
Connections Academy . (2011, September 15). *Pearson acquires Connections Education.* Retrieved from http://www.connectionsacademy.com/news/pearson-acquisition.aspx
CTB/McGraw-Hill . (2011). *About us.* Retrieved from http://www.ctb.com/ctb.com/control/ourHeritageAction?p=aboutUs
EdisonLearning . (2011a, November 9). *About EdisonLearning* . Retrieved from http://edisonlearning.com/index.php?q=about-edisonlearning
EdisonLearning . (2011b, November 12). *Alliance-school turnaround service* . Retrieved from http://edisonlearning.com/alliance-school-turnaround-model

EdisonLearning . (2011c, November 12). *Learning force* . Retrieved from http://edisonlearning.com/learning-force

EdisonLearning . (2011d, November 12). *Products and services* . Retrieved from http://edisonlearning.com/products-services

Educate Online . (2011e, December 12). *Our programs* . Retrieved from http://www.educate-online.com/#/our_programs/k12_academic_intervention/how_educate_online_works

Education Industry Association . (2010a). *Middle class tax incentives for tutoring.* Retrieved from http://www.educationindustry.org/index.php?option=com_content&view=article&id=51:middle-class-tax-incentives-for-tutoring&catid=19:news-and-policy

Education Industry Association . (2010b, March 2). *SES/Public Policy.* Retrieved from http://www.educationindustry.org/tier.asp?sid=2

Education Industry Association . (2011a, January). EIA's 11th Annual Education Industry Days Legislative Conference. *Enterprising Educators: The Education Industry Association's Monthly Publication* , p. 3.

Education Industry Association . (2011b, December 5). *Make history on December 6, 2011 by helping launch global initiative for education entrepreneurs.* Retrieved from http://www.educationindustry.org/index.php?option=com_content&view=article&id=77:icee-meeting-istanbul-turkey&catid=19:news-and-policy&Itemid=158

88Education Industry Association . (2011c, December 11). *Mission and goals.* Retrieved from http://www.educationindustry.org/mission-and-goals

Education Industry Association . (2011d, January). New faces at EIA. *Enterprising Educators: The Education Industry Association's Monthly Publication* , p. 5.

Education Industry Association . (2011e, December 5). *SES coalition.* Retrieved from http://www.educationindustry.org/ses-coalition

Education Industry Association . (2011f, December 5). *Who we are.* Retrieved from http://www.educationindustry.org/who-we-are

Elementary and Secondary Education Act of 1965. In S. B. Mosher (Ed.), *ESEA: The Office of Education administers a law* (pp. 235–266). Syracuse, NY: Syracuse University Press.

Entrepreneur Magazine . (2010, March 12). *Kumon math and reading centers: Supplemental education.* Retrieved from http://www.entrepreneur.com/franchises/kumonmathandreading-centers/282507-0.html

Ewen, S. (1996). *PR! A social history of sprin.* New York: Basic Books.

Field Trip Factory . (2010a). *Real learning meets real life at the Field Trip Factory.* Retrieved from http://www.fieldtripfactory.com/tour-factory/who-we-are

Field Trip Factory . (2010b). *Speak out. It's your earth.* Enviromental Programs. Retrieved from http://www.fieldtripfactory.com/ralphsearthday

Field Trip Factory . (2010c). *Nutrition detective.* Retrieved from http://www.fieldtripfactory.com/peapod

Friedman, M. (1962). *Capital and freedom.* Chicago, IL: University of Chicago Press.

Hayek, F. (1962). *The road to serfdom.* Chicago, IL: University of Chicago Press.

Hu, W. (December 17, 2010). Christie picks Klein ally for New Jersey Schools. *New York Times* . Retrieved from http://www.nytimes.com/2010/12/18/nyregion/18cerf.html

K12. Inc . (2011, December 12). *Online public schools.* Retrieved from http://www.k12.com/schools-programs/online-public-schools

Kaplan . (2009). *History.* Retrieved from http://www.kaplan.com/about-kaplan/history

Kaplan . (2011, November 15). *Kaplan K12 learning services and K¹² partner to maximize college preparation.* Retrieved from http://www.kaplan.com/newsroom/Pressreleases/Pages/PressReleases.aspx?ID=647

Kumon Learning Centers . (2011, December 12). *Franchise home.* Retrieved from http://www.kumonfranchise.com/

McGraw-Hill Companies . (2010). *A smarter, better world: 2009 annual report.* New York: McGraw-Hill.

McGraw-Hill Companies . (2011). *What does it take to succeed in the knowledge economy?: 2010 annual report.* New York: McGraw-Hill.

Molnar, A. (2005). *School commercialization: From democratic ideal to market commodity.* New York: Routledge.

National Center for Education Statistics . (2010). *The condition of education 2010.* Washington, DC: U.S. Department of Education.

No Child Left Behind Act of 2001 . (2002, January 8). Retrieved from http://www2.ed.gov/policy/elsec/leg/esea02/index.html

Pearson . (2010a, September 15). *Danville, Virginia School District chooses Pearson as school turnaround partner.* Retrieved from http://www.pearsoned.com/danville-virginia-school-district-chooses-pearson-as-school-turnaround-partner/

Pearson . (2010b). *Open to learn: Pearson annual report and accounts 2010.* London: Pearson.

PepsiCo . (2011). *PepsiCo global policy on the sale of beverages to schools.* Retrieved from http://www.pepsico.com/download/PepsiCo_Global_Policy_On_The_Sale_Of_Beverages_To_Schools.pdf

Popovich, N. . (2010, March 18). *Pepsi to restrict caloric drinks in schools worldwide.* Retrieved from http://www.npr.org/blogs/health/2010/03/pepsi_global_school_soda_polic.html

Princeton Review . (2011). *2010 annual report.* Farmingham, MA: Author.

Princeton Review . (2012). *About the Princeton Review* . Retrieved from http://www.princetonreview.com/about-us.aspx

Princeton Review Foundation . (2011). *About us*. Retrieved from http://www.princetonreview.com/corporate/foundation.aspx

Saltman, K. (2005). *The Edison schools: Corporate schooling and the assault on public education.* New York: Routledge.

Saul, S. . (2011, December 12). Profits and questions at online charter schools. *New York Times* , pp. A1, A24–25.

Spring, J. (2010). *Political agendas for education* (4th ed.).New York: Routledge.

Star-Ledger Staff (2011, March 13). N.J. acting schools chief faces questions about transparency, imperiling his confirmation. *Newark Star-Ledger.* Retrieved from http://www.nj.com/news/index.ssf/2011/03/nj_acting_education_commission.html

Sylvan Learning . (2011a, December 12). *Sylvan builds the skills, habits and attitudes your child needs for lifelong success.* Retrieved from http://tutoring.sylvanlearning.com/tutoring_programs.cfm

Tennessee Virtual Academy . (2011, December 12). *Who we are.* Retrieved from http://www.k12.com/tnva/who-we-are U.S. Department of Education. (2010, March 17). Retrieved from http://find.ed.gov/search?q=supplemental+education+services&client=default_frontend&output=xml_no_dtd&proxystylesheet=default_frontend&sa.x=18&sa.y=11&ie=UTF-8&ip=74.101.47.5&access=p&entqr=3&entsp=a&oe=UTF-8&ud=1&sort=date%3AD%3AL%3Ad1

Washington Post . (2011). *2010 Annual Report.* Washington, DC: Author.

Wilwohl, J. (2011, August 24). ACLU sues Newark for details of $100M Facebook cash. *NewarkPatch* . Retrieved from http://newarknj.patch.com/articles/aclu-sues-newark-for-details-of-100m-facebook-cash

Profits, Products, and Privatization

American Public University . (2010). American Public University to expand higher education opportunities for Wal-Mart Associates. Retrieved from http://www.apus.edu/news-events/news/2010/06-03-10-apu-walmart-partnership.htm

Burd, S. . (2011, April 28). Democratic bigwigs cash in on for-profit college lobbying blitz. Higher Ed Watch Blog from the New American Higher Education Initiative. Retrieved from http://higheredwatch.newamerica.net/blogposts/2011/democratic_bigwigs_cash_in_on_for_profit_college_lobbying_blitz-49471

Cheaters sometimes win . (2011, October 15). [Editorial]. *New York Post.* Retrieved from http://www.nypost.com/p/news/opinion/editorials/cheaters_sometimes_win_LVQR6EVGE32UnyKKpQZ62L

Clabaugh, G. K. , & Rozycki, E. G. (1990). *Understanding schools: The foundations of education.* New York: Harper … Row.

Cole, J. R. (2009). *The great American university* . New York: Public Affairs.

Dillon, S. (March 1, 2006). Online colleges receive a boost from Congress. *New York Times.* Retrieved from http://www.nytimes.com/2006/03/01/national/01educ.html?pagewanted=all

Edelman, S. . (2011, October 22). “Remedial class” nightmare at CUNY. *New York Post.* Retrieved from http://www.nypost.com/p/news/local/remedial_class_nightmare_at_cuny_5JruiGppYWONCT1gE5xcyL

Education Trust . (2009). About the Education Trust. Retrieved from http://www.edtrust.org/dc/about

Glod, M. . (2008, June 13). Mandated tutoring not helping MD, VA scores. *Washington Post.* Retrieved from http://www.washingtonpost.com/wp-dyn/content/article/2008/06/12/AR2008061203681.html

Golden, D. (2009, December 30). For-profit colleges target the military. *Bloomberg Business Newsweek.* Retrieved from http://www.businessweek.com/magazine/content/10_02/b4162036095366.ht

Gootman, E. , & Coutts, S. (2008, April 11). Lacking credits, some students learn a shortcut.*New York Times.* Retrieved from http://www.nytimes.com/2008/04/11/education/11graduation.html

Kinser, K. (2006). *From Main Street to Wall Street: The transformation of for-profit higher education* (ASHE Higher Education Report, Vol. 31, no. 5). Hoboken, NJ: Association for the Study of Higher Education.

Kirkham, C. . (2011a, April 25). For-profit colleges mount unprecedented battle for influence in Washington. *Huffington Post* . Retrieved from http://www.huffingtonpost.com/2011/04/25/for-profit-colleges_n_853363.html?page=1

Kirkham, C. . (2011b, July 29) John Boehner backed deregulation of online learning, leading to explosive growth at for-profit colleges. *Huffington Post* . Retrieved from http://www.huffing-tonpost.com/2011/07/29/john-boehner-for-profit-colleges_n_909589.html?page=1

Knepper, E. G. (1941). *History of business education in the United States.* Ann Arbor, MI: Edward Brothers.

Kutz. G. A . (2010, August 4). *Testimony before the Committee on Health, Education, Labor, and Pensions, U.S. Senate. Based on a report: For-Profit Colleges: Undercover Testing Finds Colleges Encouraged Fraud and Engaged in Deceptive and Questionable Marketing Practices.* Washington, DC: U.S. Government General Accountability Office. Retrieved from http://www.gao.gov/new.items/d10948t.pdf

Lictblau, E. (2012, January 15). Romney offers praise for a donor’s business.*New York Times* . Retrieved from http://www.nytimes.com/2012/01/15/us/politics/mitt-romney-offers-praise-for-a-donors-business.html?_r=1…nl=todaysheadlines…emc=tha2

Lynch, M. , Engle, J. , & Cruz, J. L. (2010). *Subprime opportunity: The unfulfilled promise of for-profit colleges and universities.* Washington, DC: Education Trust.

Retrieved from http://www.edtrust.org/dc/Subprime

118Media Matters for America . (2006, January 5). Despite controversial comments and GAO investigation, Bill Bennett reportedly joining CNN as political analyst. *Media Matters.* Retrieved from http://mediamatters.org/research/200601050002

Metcalf, S. (2002). Reading between the lines. *The Nation.* Retrieved from http://www.the-nation.com/article/reading-between-lines?page=0,0

Miron, G. , Urschel, J. L. , Yat Aguilar, M. A. , & Dailey, B. (2011). *Profiles of for-profit and nonprofit education management organizations: Thirteenth annual report—2010–2011* .Boulder, CO: National Education Policy Center. Retrieved from http://nepc.colorado.edu/publication/EMO-profiles-10

Moe, M. T. , Bailey, K. , & Lau, R. (1999). *The book of knowledge* . San Francisco, CA: Merrill Lynch. Retrieved from http://news.heartland.org/newspaper-article/1999/10/01/book-knowledge

National Research Council . (2011). Incentives and test-based accountability in education. In M. Hout & S. W. Elliot (Eds.), *Committee and test-based accountability in public education, Board on Testing and Assessment, Division of Behavioral and Social Sciences and Education* . Washington, DC: The National Academies Press.

Pearson . (2010). Invitation to participate in the ADP Algebra II end-of-course exam—Spring 2010. Retrieved from http://www.nj.gov/education/assessment/hs/alg/NJAlgebraIISpring-2010Invitationletter.pdf

Picciano, A. G. , & Seaman, J. (2010). *Class connections: High school reform and the role of online learning* . Needham, MA: Babson College Survey Research Group. Retrieved from http://www3.babson.edu/ESHIP/research-publications/upload/Class_connections.pdf

Providence Equity . (2008). Retrieved from http://www.provequity.com/about_us/index.asp?Section=1,0,0

Scher, A. , & Burchard, S. (2009). Bush profiteers collect billions from No Child Left Behind. Retrieved from http://www.projectcensored.org/top-stories/articles/12-bush-profiteers-collect-billions-from-no-child-left-behind/

Topol, B. , Olson, J. , … E. Roeber , (2010). *The cost of new higher quality assessments: A comprehensive analysis of the potential costs for future state assessments* . Stanford, CA: Stanford University, Stanford Center for Opportunity Policy in Education.

Tucker, B. (2010, February 7). For-profit colleges change higher education's landscape. *Chronicle of Higher Education.* Retrieved from http://chronicle.com/article/For-Profit-Colleges-Change/64012/

U.S. Department of Education, National Center for Education Statistics . (1993). *120 years of American education: A statistical portrait.* Washington, DC: Author. Retrieved fro http://nces.ed.gov/pubs93/93442.pdf

Wilson, R. . (2011, October 11). The truth about testing costs. *Education Week* . Retrieved from http://www.edweek.org/ew/articles/2011/10/12/07tucker.h31.html?tkn=OQUF9Q%2Fq1Md5IMYEvUliV39KrQN8djmgSk%2B3&print=1

Winerip, M. (2011a, October 24). In college, working hard to learn high school material. *New York Times.* Retrieved from http://www.nytimes.com/2011/10/24/education/24winerip.html?ref=nyregion

Winerip, M. (2011b, September 18). When free trips overlap with commercial purposes . *New York Times* . Retrieved from http://www.nytimes.com/2011/09/19/education/19winerip.html?scp=1…sq=Pearson&st=cse

Foundations and Think Tanks

Adamiec, E. . (2011, October 20). *Senate guts school accountabiltity.* Retrieved from http://progres-sivepolicy.org/senate-guts-school-accountability

American Enterprise Institute . (2011). *American Enterprise Institute: 2011 annual report.* Washington, DC: Author..

American Enterprise Institute (2012a). *Frederick Hess* . Retrieved from http://www.aei.org/scholar/frederick-m-hess/

American Enterprise Institute (2012b). *AEI's organization and purposes* . Retrieved from http://www.aei.org/about/

Barkan, J. (Winter 2011). Got dough? How billionaires rule our schools. *Dissent* . Retrieved from http://www.dissentmagazine.org/article/?article=3781

Burke, L. (2010, August 10). The assault on for-profit universities. Retrieved from http://blog.heritage.org/2010/08/10/the-assault-on-for-profit-universities/?query=The+Assault+on+For-Profit+Universities

Carnegie, A. (1889). The gospel of wealth. Retrieved from http://us.history.wisc.edu/hist102/pdocs/carnegie_wealth.pdf?

Cities for Education Enterprenuership Trust and the Thomas B. Fordham Institute . (2011). *Better choices: Charter incubation as a strategy for improving the charter school sector.* Washington, DC: Thomas B. Fordham Institute.

Dillon, S. . (2011a, April 27). Foundations join to offer online courses for schools. *New York Times* . Retrieved from http://www.nytimes.com/2011/04/28/education/28gates.html?nl=todaysheadlines&emc=tha26

Dillon, S. . (2011b, May 21). Behind grass-roots school advocacy, Bill Gates. *New York Times.* Retrieved from http://www.nytimes.com/2011/05/22/education/22gates.html?_r=2&adxnnl=1&pagewanted=print&adxnnlx=1322465423-YRvgm8zUXA0JGY0doaKfGA

Evers, W. (2010). *American education in 2030: Standards and competitive rigor.* Palo Alto, CA: Stanford University.

Finn, C. (2010). *American education 2030: School choice.* Palo Alto, CA: Stanford University.

Florida State University . (2011, July). Koch Foundation memorandum of understanding. In *Faculty Senate ad hoc Committee review report* . Retrieved from http://president.fsu.edu/down-loads/Full_Report.pdf

Fordham Institute . (2012). *The Fordham mission* . Retrieved from http://www.edexcellence.net/about-us/fordham-mission.html

Friedman, M. (1978). Preface. In W. Simon, *A Time for Truth* (p. xii). New York: Readers Digest Press.

Greenblatt, A. (2011, April 27). Billionaires in the classroom. *Governing the States and Localities.* Retrieved from http://www.governing.com/topics/education/billionaires-in-the-class-room.html#

Greene, J. , & Symonds, W. C. . (2006. June 26). Bill Gates gets schooled. *Business Week* . Retrieved from http://www.businessweek.com/magazine/content/06_26/b3990001.htm

Hammond, B. , & Lednicer, L.G. (2008, June 23). Small-school experiment doesn't live up to hopes. *Seattle Times.* Retrieved from http://seattletimes.nwsource.com/html/education/2008012076_smallschools23.html

Heritage Foundation . (2011). *Issues 2010: Candidates briefing book.* Washington, DC: Author.

Heritage Foundation . (2012). *About us.* Retrieved from http://www.heritage.org/about

Hoover Institute . (2012a). *Task force and working groups: American education 2030* . Retrieved from http://www.hoover.org/taskforces/education/AE2030

Hoover Institute . (2012b). *Koret task force* . Retrieved from http://www.hoover.org/taskforces/education

Hoover Institute . (2012c). *K-12 Education task for members appear on Rick Hess's top scholars list* . Retrieved from http://www.hoover.org/news/103886
Hoover Institute . (2012d). Williamson Evers. Retrieved from http://www.hoover.org/fellows/10136
Hundley, K. (May 10, 2011). Billionaire's role in hiring decisions at Florida State University raises questions. *Tampa Bay Times* . Retrieved from http://www.tampabay.com/news/business/billionaires-role-in-hiring-decisions-at-florida-state-university-raises/1168680
Jenning, J. L. , & Pallis, A. M. (2010). *Do New York City's new small schools enroll students with different characteristics from other NYC Schools?* Providence, RI: The Annenberg Institute for School Reform, Brown University.
Leibell, D. T. . (2009, December 30). Gates embraces philanthro-capitalism: The world's largest private foundation bets big on venture philanthropy. Retrieved from http://trustsandestates.com/wealth_watch/gates-foundation-venture-philanthropy1230/
Letts, C. W. , Ryan, W. , & Grossman, A. . (1997, March–April,). Virtuous capital: What foundations can learn from venture capitalists. *Harvard EducationBusiness Review,* 36–44. Retrieved from http://www.halftime.org/wp-content/uploads/2011/07/Virtuous_Capital_HB.pdf
Levine, M. (2011, September). *The digital teaching corps.* Retrieved from http://progressivepolicy.org/?s=21st+century+schools
Lewis, S. (1922). *The goose step.* Pasadena, CA: Author.
Lewis, S. (1924). *The goslings.* Pasadena,CA: Author.
Lubove, S. , & Staley, O. (2011, May 14). College gifts now coming with strings attached. *The Washington Post.* Retrieved from http://www.washingtonpost.com/business/college-gifts-now-coming-with-strings-attached/2011/05/08/AF9TEf3G_story.html
National Association of Charter School Authorizers . (2012). *Funders.* Retrieved from http://www.qualitycharters.org/about/sponsors
National Association of Charter School Authorizers . (2012). *Mission.* Retrieved from http://www.qualitycharters.org/about/mission-2
Otterman, S. (2011, August 29). Subsidiary of News Corp. loses deal with state. *New York Times* . http://www.nytimes.com/2011/08/30/education/30wireless.html
Porter, M. E. , & Kramer, M. R. . (1999, November). Philanthropy's new agenda: Creating value. *Harvard Education Review.* Retrieved from http://hbr.org/1999/11/philanthropys-new-agenda-creating-value/ar/1
Progressive Policy Institute . (2011, September 14). *PPI statement on empowering parents through Quality Charter School Act.* Retrieved from http://progressivepolicy.org/ppi-statement-on-empowering-parents-through-quality-charter-schools-act
Progressive Policy Institute . (2012a). *New schools for the twentieth century* . Retrieved from http://progressivepolicy.org/education-reform
Progressive Policy Institute . (2012b). *Who we are* . Retrieved from http://progressivepolicy.org/about-us/who-we-are
Ravitch, D. (2010). *The death and life of the great American school system* . New York: Perseus.
Ricci, D. (1993). *The transformation of American politics: The new Washington and the rise of think tanks.* New Haven, CT: Yale University Press.
Rich, A. (2004). *Think tanks, public policy, and the politics of expertise* [Kindle version]. Cambridge, England: Cambridge University Press.
Simon, W. (1978). *A time for truth.* New York: Readers Digest Press.
Smith, J. (1991). *The idea brokers and the rise of the new policy elite.* New York: Free Press.
Visconti, V. , & Thiam, S . (2009, December 3). Race to the top podcast: Diane Ravitch ques-tions the new role. Retrieved from http://learningmatters.tv/blog/podcasts/race-to-the-top-podcast-play-money/3428/

Walton Family Foundation . (2012). *4.0 SCHOOLS* . Retrieved from http://www.waltonfamily-foundation.org/grantees/4.0-schools
Washburn, J. (2005). *University, Inc* . New York: Basic Books.
Weiss, J. (March 31, 2011). The innovation mismatch: “Smart capital” and education innovation. *Harvard Business Review.* Retrieved from http://blogs.hbr.org/innovations-in-education/2011/03/the-innovation-mismatch-smart.html

Media

Alexander, G. (2010). *Academic films for the classroom: A history.* Jeff erson, NC: McFarland.
Amazon . (2012a). *Teletubbies dolls* . Retrieved from http://www.amazon.com/gp/search/ref=sr_st_scat_phl_165793011?rh=n%3A165793011%2Ck%3Ateletubbies+dolls&sort=-price&keywords=teletubbies+dolls&ie=UTF8&qid=1328214602&scn=165793011&h=a389d34fe0ad4870b8186ba4a3c264beceda8a54
Amazon . (2012b). *Kermit the frog puppet replica* . Retrieved from http://www.amazon.com/Kermit-Frog-Photo-Puppet-Replica/dp/B000J680AM/ref=sr_1_1?s=toys-and-games&ie=UTF8&qid=1328279173&sr=1-1
Amazon . (2012c). *Sesame Street Elmo room in box 5 pc.* Retrieved from http://www.amazon.com/SESAME-STREET-ORGANIZER-ASSEMBLY-REQUIRED/dp/B001KZBMK6/ref=sr_1_3?s=toys-and-games&ie=UTF8&qid=1328279173&sr=1-3
Amazon . (2012d). *Tellytummy Teletubbies—La La doll toy.* Retrieved from http://www.amazon.com/Tellytummy-Teletubbies-Doll-Toy/dp/B003WUKQEK/ref=sr_1_1?s=toys-and-games&ie=UTF8&qid=1328214849&sr=1-1
Amazon . (2012e). *Tomy Teletubbies dance with me Teletubby lala doll toy.* Retrieved from http://www.amazon.com/Tomy-Teletubbies-Dance-Teletubby-Doll/dp/B002RJESPA/ref=sr_1_2?s=toys-and-games&ie=UTF8&qid=1328214849&sr=1-2
AMD . (2012a). *About AMD.* Retrieved from http://www.amd.com/us/aboutamd/Pages/Abou-tAMD.aspx
AMD . (2012b). *AMD foundation.* Retrieved from http://www.amd.com/us/aboutamd/corporate-information/corporate-responsibility/community/foundation/Pages/information.aspx
Apple . (2011a). *Apple in education.* Retrieved from http://www.apple.com/education/ipad/
Apple . (2011b). *Thousands of apps. Endless potential.* Retrieved from http://www.apple.com/education/apps/
Apple . (2011c). *iBooks textbooks for iPad.* Retrieved from http://www.apple.com/education/ibooks-textbooks/
Aylesworth, M. (1934). Radio as a means of public enlightenment. In National Education Asso-ciation, *Proceedings* (pp. 99–102). Washington, DC: National Education Association.
Baugham, J. (1985). *Television’s guardians: The FCC and the politics of programming, 1958–1967.* Knoxville: University of Tennessee Press.
BlackBerry . (2011). *Appworld: “TVOKids Polka Dot Shorts.”* Retrieved from http://appworld.BlackBerry.com/webstore/content/26663?lang=en
Carnegie Commission on Education Television . (1967). *Public television: A program for action.* New York: Harper & Row.
Epsilen . (2012). *About.* Retrieved from Epsilen: http://corp.epsilen.com/about/

Fisher-Price . (2012). *Online games & activities.* Retrieved from http://www.fisher-price.com/fp.aspx?st=30&e=gameslanding&mcat=game_infant,game_toddler,game_preschool&site=us

Gates Foundation . (2011). *Grants.* Retrieved from http://www.gatesfoundation.org/Grants-2010/Pages/New-York-University-OPP1019503.aspx

Gerstl-Pepin, C. (2002). Cynthia I. GeMedia (mis)representations of education in the 2000 presi-dential election. *Education Policy*, *16,* 37–55.

Graham, N. (1914). Discussion. In National Education Association, *Proceedings* (p. 746). Ann Arbor: National Education Association.

Gunter, B. , Oates, C. , & Blades, M. (2005). *Advertising to children on TV: Content, impact, and regulation.* Mahwah, NJ: Erlbaum.

Houghton Mifflin Harcourt . (2011). *Executive leadership.* Retrieved from http://www.hmhco.com/leadership.html

Hu, W. (2011, January 4). Math that moves: Schools embrace the iPad. Retrieved from http://www.nytimes.com/2011/01/05/education/05tablets.html?sq=iPadschools&st=nyt&scp=1&pagewanted=print

Ito, M. (2009). Engineering play: A cultural history of children's software. Cambridge, MA: MIT Press.

Joy, J. (1927). Motion pictures in their relation to the school child. In National Education Association, *Proceedings* (pp. 964–969). Washington, DC: National Education Association.

Judd, C. (1923). Report of Committee to Cooperate with National Education Association, *Proceedings* (pp. 243–244). Washington, DC: National Education Association.

JumpStart . (2011). Preschool magic of learning. Retrieved from http://ax.itunes.apple.com/us/app/jumpstart-preschool-magic/id395058540

Knowledge Adventure . (2011). Financing history. Retrieved from http://www.knowledgeadven-ture.com/CompanyInfo.htm

Learning Company , The (2011). *History of Carmen Sandiego brand.* Retrieved from http://carmen-sandiego.com/hmh/site/carmen/home/articles?article=2560

Linn, S. (2004). *Consuming kids: Protecting our children from the onslaught of marketing and advertising.* New York: Anchor Books.

Milligan, H. (1938). Mrs. Harold Milligan. In C. Marsh (Ed.), *Educational broadcasting 1937* (pp. 258–261). Chicago, IL: University of Chicago.

Morgan, J. (1934). A national culture: By-product or objective of national planning? In National Education Association, *Proceedings* (pp. 29–36). Washington, DC: National Education Association.

New York Times . (2012a). Knowledge network. Retrieved from http://www.nytimesknownow.com/

New York Times . (2012b). Take an online course with the *New York Times* and see where that course takes you. In *The New York Times Knowledge Network Winter and Summer 2012 Catalog* . New York: Author.

New York Times . (2012c). *About us.* Retrieved from http://www.nytimesknownow.com/index.php/about-us/

New York Times . (2012d). *All courses.* Retrieved from http://www.nytimesknownow.com/index.php/category/subject/all-courses/

Olesen, P. (1914). Discussion. In National Education Association, *Proceedings* (p. 747). Ann Arbor, MI: National Education Association.

Paley, W. (1934, October 17). Radio as a cultural force. *CBS Reference Library* . New York: CBS Reference Library.

PBS Educational Media, Shop . (2012). *PBS teacher shop* . Retrieved from http://teacher.shop.pbs.org/family/index.jsp?categoryId=3710164

PBS Educational Media, Shop . (2012). *Educator's top picks* . Retrieved from http://teacher.shop.pbs.org/family/index.jsp?categoryId=1411597&clickid=header&cp=

1398013
PBS Kids Shop . (2012a). *Toy blocks* . Retrieved from http://pbskidstoys.shop.pbskids.org/toys-games/blocks.html?dir=desc&order=price
PBS Kids Shop . (2012b). *Shop—Sid the science kid* . Retrieved from http://sidscience.shop.pbskids.org/clothing.html
PBS KIDS (2012c). *2012 National STEM video game challenge.* Retrieved from http://pbskids.org/stemchallenge/
Quillen, I. (2010, December 8). Rupert Murdoch moves into K-12 tech. market. *Education Week, p. 16.*
Rio Salado College . (2012). *Teacher education.* Retrieved from http://www.riosalado.edu/pro-rams/education/postbacc/Pages/default.aspx
Saunders, A. (1914). Motion pictures as an aid to education. In National Education Association, *Proceedings* (p. 744). Ann Arbor: National Education Association.
Schrum, K. (1998). Teena means business: Teenage girls' culture and "Seventeen Magazine," 1944–1950. In S. A. Inness (Ed.), *Delinquents and debutantes: Twentieth-century girls' cultures* (pp. 136–156). New York: New York University Press.
Sesame Street . (2012). *Sesame Street store* . Retrieved from http://store.sesamestreet.org/
Snedden, D. (1914). Discussion. In National Education Association, *Proceedings* (p. 746). Ann Arbor, MI: National Education Association.
Spring, J. (1992). *Images of American life: A history of ideological management in schools, movies, radio, and television.* Albany, NY: SUNY Press.
Spring, J. (2011). *The politics of American education.* New York: Routledge.
Stelter, B. (2012, February 6). Print news media go live with video programming. *New York Times* , pp. B1–2.
Stout, H. (2010, October). Toddlers' favorite toy: The iPhone. Retrieved from http://www.nytimes.com/2010/10/17/fashion/17TODDLERS.html?scp=1&sq=toddler+iphone&st=nyt
Tomassini, J. (2012, January 25). Apple unveils e-textbook strategy for K-12. *Education Week*, p. 8. U.S. Department of Education. (2010). *National education technology plan 2010: Transforming American education: Learning powered by technology.* Washington, DC: U.S. Department of Education.
Variety. (1933, August 29). British vs. American radio slant, debate theme in 40, 000 schools. *Variety*, p. 1.
Virtual Performance Assessment (2011). Using immersive technology to assess science inquiry learning. Retrieved from http://vpa.gse.harvard.edu/about/
Vivendi . (2011). *Group.* Retrieved from http://www.vivendi.com/vivendi/-Group
WDCore Editorial . (2011). *A brief history of the iPad-infographic.* Retrieved from http://www.web-designcore.com/2011/04/30/a-brief-history-of-the-ipad-%E2%80%93-infographic/
West, D. , Whitehurst, G. , & Dionne, E. (2009). *Invisible: 1.4 percent coverage for education is not enough.* Washington, DC: Brookings Institute.

Conclusion

Brill, S. . (2011). *Class warfare: Inside the fight to fix America's schools.* New York: Simon & Schuster.
Cronin, J. (1973). *The control of urban schools* . New York: Free Press.
Hawley, W. (1973). *Nonpartisan elections and the case for party politics* . New York: Wiley.
Kerr, C. (2001). *The uses of the university* (5th ed.). Cambridge, MA: Harvard University Press.

Lackoff, G. (2002). *Moral politics: How liberals and conservatives think* (2nd ed.). Chicago, IL: University of Chicago Press.
Mencimer, S. (October 14, 2011). Rupert Murdoch compares US education system to Third World country's. *Mother Jones* . Retrieved from http://motherjones.com/mojo/2011/10/rupert-murdoch-compares-us-education-system-third-world-countrys
Mill, J. S. (1956). On liberty. Indianapolis, IN: The Liberal Arts Press (Original work published 1859)
National Commission on Excellence in Education . (1983). *A nation at risk: The imperative for educational reform*. Washington, DC: Author. Retrieved from http://www2.ed.gov/pubs/NatA-tRisk/index.html
Newman, J. (1990). *The idea of a university* . South Bend, IN: University of Notre Dame Press.
Occupy Wall Street . (2011, September 30). *Declaration of the occupation of New York City.* Forum Post: First official release from Occupy Wall Street. Retrieved from http://occupywallst.org/forum/first-official-release-from-occupy-wall-street/
Phillips, A.M. (2012, February 10). Amid protesters disruptions, City board votes to close 18 schools and truncate 5 others. *New York Times* . Retrieved from http://www.nytimes.com/schoolbook/2012/02/10/amid-protesters-disruptions-city-board-votes-to-close-18-schools-and-truncate-5/
Rudolph, F. (1962). *The American college and university* . New York: Knopf.
Spring, J. (2011a). *The American school: A global context from the Puritans to the Obama era* . New York: McGraw-Hill.
Spring, J. (2011b). *The politics of American education* . New York: Routledge.
Witt, S. (July 21-27, 2011). On the Bloomberg-Murdoch trail: Influence peddling reportedly swirling around the DOE's $22 billion cash cow. *Our Time Press* . Retrieved from http://www.ourtimepress.com/upload/July212011sm