

**ASSESSING
the
EDUCATIONAL DATA
MOVEMENT**

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Foreword by Allan Collins



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Preface

This book has been both a personal and professional endeavor. Often it has been hard to separate the two, as preparation for it started long before I began working on this volume for the Technology, Education–Connections series in 2010. I believe it is a project that was only possible for me after a life’s journey spent experiencing education, technology, and some of the important ways they can connect. Although this is not a personal story, it is informed by an accumulation of my personal and professional experiences that relate to many issues explored in this book. The stepping stones of my life have provided me with rare vantage points on how data and information are impacting the central activities of education, which I now believe to be one of the most important and misunderstood developments of our time.

How one sees is influenced by where one has been; what is familiar and what is new. A similar principle applies to crossing boundaries. Traversing from one domain to another reveals both a little about each and something about both. Because the boundaries of physical and conceptual places show us how they connect, form parts of larger systems, or are pulled in different directions, the crossing of boundaries can become an act of meaning making. In several consequential periods of my life, I crossed boundaries—inside and outside of educational systems; across different industries; in technical, teaching, and managerial roles; as a struggling and accomplished student; from being a professional to a non-traditional adult student to then a scholar working outside of an academic home; and now as a parent of children in public school—that have helped me provide a more holistic account of the changes occurring in education and some of the forces driving them that until now has not been available.

My road to this undertaking began before I left high school, which I did somewhat earlier than scheduled after living on the border between those who thrive in school and those who become disaffected. I grew up in a traditional middle-class community with educated parents. I loved school from my youngest days. However, by my early adolescence I was being raised in a single-parent household with many of the economic and social challenges that come to children of absent fathers. By my late teens I had stopped attending classes and shortly thereafter became a high school dropout with

limited employment choices. At times, the ways I became an adult student and then earned a Ph.D. in education seem random and accidental. This path, however, also became one of the best developmental processes I could imagine for writing this book.

I have seen many sides of education. The institution of public schools I experienced showed me some of its worst: labeling, lowered expectations, and being pushed through the system with little regard for academic development. Many of my primary and secondary school years were marked by occasional interest and marginal performance. School, for me, was often a place of confinement rather than of liberation. It was a place I ultimately sought to escape from and did. I saw then and see now good and dedicated teachers working alongside educators who are more invested in themselves than the children they should be serving. It has been an unfortunate truth across the ages.

I have also experienced some of the best that educators and educational systems have to offer. I remember being profoundly helped by some of the teachers, counselors, and staff at Eastern Junior High School who took time to advise me and make an impact on my life. At one point when the chaos of my home circumstances combined with the confusion of the adolescent years, teachers would pull me aside and offer direct words of encouragement, saying, “you can do it,” “you’re a good kid,” and, “you’ll make it through this.” These were, as I recall them, regular teachers. They worked in an era when school systems did not look at “productivity” measures. They had been in my school long before I got there and continued for years after I left. In retrospect, their actions seem now anything but random. They are clearly the moves of dedicated educators responding to the circumstances of a student in their care. I never thanked them, but their words and understanding proved transformative even though at that time no change in me or my performance would have been evident.

Educators have a voice and a position that can impress on children. Years later, after working in the technology field I was able to appreciate how those educators used their special role to give one teenager messages that were sorely needed and which other adults had been unable to do. While hard to measure or translate into data, this is the kind of act some educators do every day that does make a huge difference. Not all do this nor do all have students who need it. Education appears simple in that it is an almost universal experience. But, it is one that many experience through diverse paths. To deeply understand the public enterprise of education requires assimilating the fundamental reality of the profound differences that exist in this broad activity we call education.

Shortly after leaving high school, I began my career in the information technology field where I became a computer programmer and worked with

emerging organizational software solutions. Much of today's economic reality has roots in what was occurring in those days. That work led me to experience many new boundaries involving different kinds of institutions and fields. After spending some years as a technician, I became involved with a portion of that industry providing consulting, education, and strategic analysis to managers and executives. From week to week or month to month I was immersed in the details of different fields: one day it was military logistics, the next health care, manufacturing, retail, or finance. This experience gave me an appreciation for the different ways organizations use information for improvement. It showed me how information systems can be catalysts for reshaping professions, companies, and fields. It also showed how different endeavors could be in some ways similar while in other ways fundamentally different. Even though implementing these technologies was almost always an arduous process, those organizations that did, were the ones that thrived. I left that field at the beginning of this century to return to school and complete my undergraduate degree. Once there, I reconnected with my love of learning and interest in education.

My adult educational experience was similarly nontraditional and influenced how I approached this book. After many years of work, I completed my long deferred undergraduate degree at the University of Maryland's University College, a school for professionals where classes are often conducted in the evening and with distance technology. I followed this with a master's from Georgetown University, where the scholarship I encountered inspired me to pursue a Ph.D. at a top-tier university. At the University of Michigan's School of Education I studied cognition and learning in the comparatively new field of Learning Sciences. My interest in educational data, however, developed quickly. Through a rare graduate fellowship and combination of administrative circumstances, I was not funded by any particular program and not officially housed within a single department. This is unusual for graduate students, who typically spend much of their time affiliated with a core research program and faculty network. My unusual freedom and the interdisciplinary approach nurtured at Michigan allowed me to pursue those interests across several academic communities and in different public schools and district offices investigating both learning and organizational issues.

My doctoral studies revealed the frequent disconnect between a segmented academy and the complex interconnected realms of practice; how the boundaries of academic fields structure and shape the questions that are asked. These factors converged around the brand new topic of educational data. As early research about this topic appeared, it came tentatively from different communities and almost always equating data with test scores. Those scholars not studying this area often showed trepidation—treating

this movement as another ill-conceived reform effort with the potential to harm educators. While waves of organizational technology and ideas were moving into education from other fields, the emerging studies were almost entirely framed in purely educational rather than interdisciplinary terms. Few connections were made across different education communities let alone to other fields that were implicated in these developments. As education scholars looked at these practices it was often as a kind of program or intervention that could be studied with before and after snapshots looking for impact in student achievement. Little of the extant research investigated what I believed were the most important perspectives of this phenomenon: that it is historical process affecting the entire field at the same time and that information of many kinds can be used as systemic resources to connect different organizations in addition to improving productivity. The historical aspect is one that those who work with technology learn by living since the natural evolution of technology and adoption invariably drives rapid changes across systems and sectors.

In the few years since I finished my doctoral degree, the emphasis on educational data has increased, especially in national policy. During this time, I have found practitioners often wondering how to make the best use of limited and imperfect information given to them amid policies that compel them to do so. Advocacy organizations often present simplistic visions that do not acknowledge the serious challenges to using the data in different educational practices. Unfortunately the research is still catching up and rarely actionable. Before leaving my earlier career with information tools and becoming re-immersed in education, I might have seen education as an easy addition to that list of fields that had benefitted from a data movement. Now, after having spent many years with educators, studying what occurs in schools, working with teachers and leaders up close and seeing the work they do day after day, I see that the transformation for education will be special. It is going to be difficult and require a translation of many concepts from industry into the unique practices of schooling. It is not just that education is a social practice, but that it is social across many levels, which complicate this translation. It is also an intellectual area rife with contradictions. Accountability policies that cause data to be collected often have negative side effects at the same time. Although the policies may be from some perspectives necessary they are also not neutral.

The result here is not a typical academic book. It is also not exactly the book I started to write either. As I began this work I too saw this movement negatively impacting, and being resisted by educators and teachers. As well intentioned as the efforts to bring data into education were and are, at the beginning I saw data policies as largely in opposition to those working with children. Not that they should have been, but that the world of educational

research that I had spent a lot of time in had reinforced certain stereotypes about educators. I began with a view of data as often inhibiting the work teachers do. And, there are many cases where data-oriented policies do have a negative effect. At the same time, the research for this book has shown that there are many different kinds of educators, why there can be valid reasons for some of the more difficult policies built around data, and how many educators do not resist the idea of using data and information in their work. Rather than educators generally being opposed to the data movement, many are interested and willing, but have not yet seen the promise fulfilled in the tools that are provided them.

There are three things I wanted to convey with this book. First, that what is unfolding now on many levels, often with great difficulty, is bigger than a single program or policy. It is a sociotechnical transition I name the educational data movement. The assessment this book provides is not a concise score or grade. I will not argue here that the data movement has been good or bad or that the field should or should not proceed with it. Sociotechnical revolutions are complex. Like the physiological transitions individuals experience as they mature, these processes fundamentally reshape. They can be trying. They often get better with time. And, they are not optional. Second, I seek to use a wide lens that includes and values different perspectives. As with other sociotechnical transitions, this one plucks cultural chords and brings quickly to the surface important differences in how different people view education. Many of the ideas and tools now being brought into education are from different fields, including business, and often based on different logics and with different core principles than those that have dominated the field of education for a long time. Part of what I want to accomplish in this book is to explain those logics and to reflect as best I can some of particular players and organizations that are part of this movement. Many of them—philanthropies, charter organizations, reform and advocacy groups, the U.S. Department of Education, and even educational researchers themselves—are typically not discussed in educational scholarship. Our research is usually focused on subjects rather than on those funding or conducting the research, let alone on the tools they use to make meaning. In reflecting these different interests and agents I seek to advance a common understanding. This book contains few heroes or villains. I believe the vast majority of those with different approaches to educational improvement share a common concern for children and for those who serve them. The third thing I wanted to convey in this book is the uncertainty of this time. This book is not intended as final word. Because it is dealing with the ever changing nature of technology, it cannot be. Look at the data movement in once place and time and a clear image may appear. Blink and look again and it will almost certainly will seem to have changed.

My hope is that this book can help readers ask good questions in the new era and even consider different perspectives. I firmly believe that education's information practices can and will get better. This is a lesson of history. How quickly and for whom this part of education improves, however, is still unclear. My expectation is that these different perspectives will help develop an appreciation for how information tools might be co-designed in a way that can more fully help those working with children, including those like my own, like others of their generation, and those like the student I once was.

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