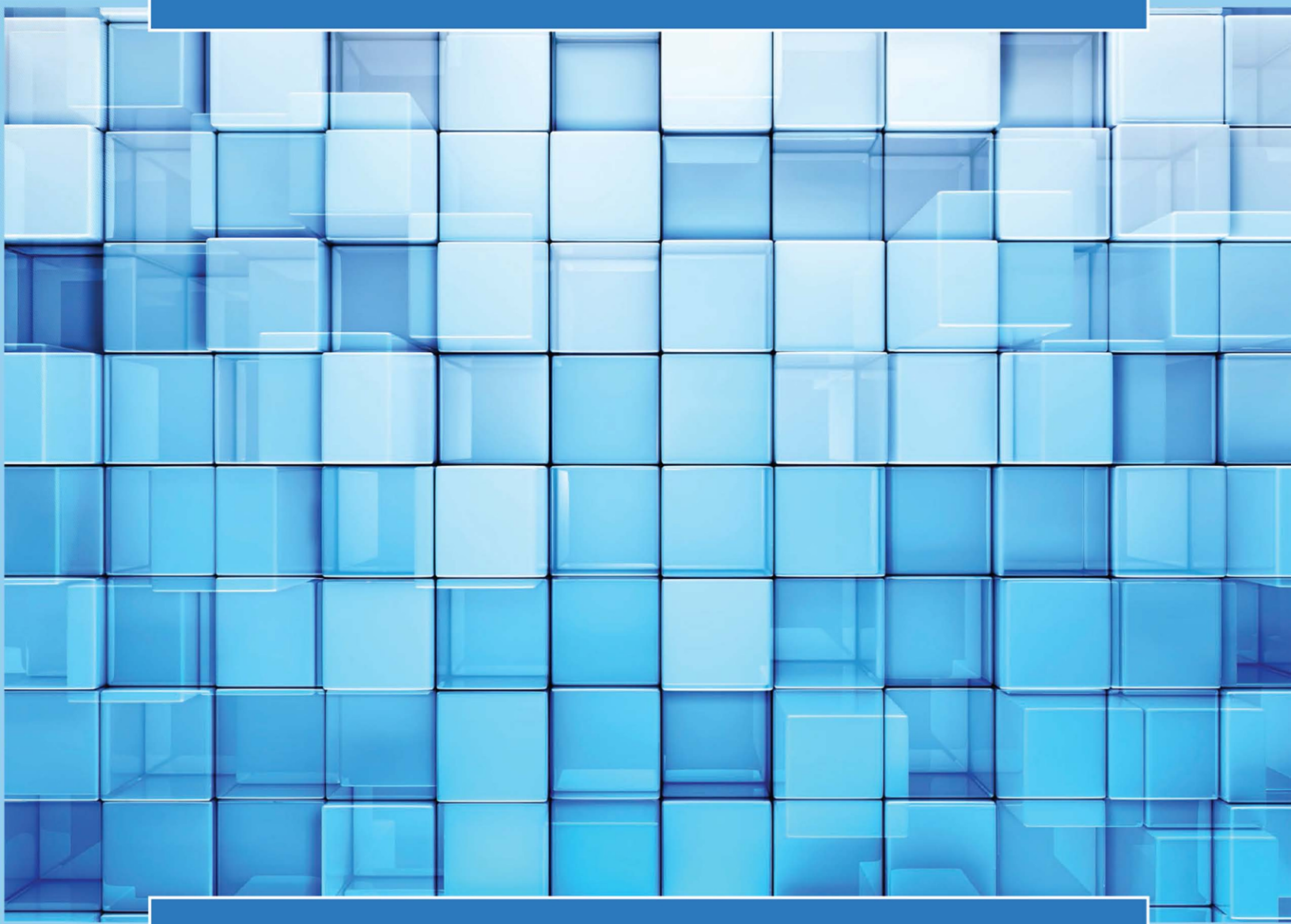
Building Bridges

Rethinking Literacy Teacher Education in a Digital Era

Clare Kosnik, Simone White, Clive Beck, Bethan Marshall, A. Lin Goodwin and Jean Murray (Eds.)

Foreword by Neil Selwyn



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PRAISE FOR
BUILDING BRIDGES

What does it mean to communicate? to know? to be literate? to learn? in a world crowded with multimodalities offered by the myriad of digital platforms, text messages, social networks, blogs, virtual friends, tweets, emoticons, and SMS codes…more importantly, What does it mean to teach in this complex communicative environment? These pressing questions are taken up in this collection of thoughtful and provocative essays that cross physical, national, and disciplinary boundaries to examine current practices, offer compelling illustrations, and propose novel solutions. Educators, researchers and policy makers wrestling with emerging dilemmas of curriculum and teaching given a rapidly digitizing 21st century will find this volume to be an accessible, refreshing, and substantive read.

– Associate Professor Ee-Ling Low, Head, Strategic Planning & Academic Quality, National Institute of Education, Nanyang Technological University, Singapore

We live in an exhilarating time when global citizens, including teachers and teacher educators, send and receive messages via social media, across vast distances within seconds. Yet integrating digital technologies into the foundations of teacher education continues to be a daunting task. The data and insights herein are *timely, challenging, and vitally necessary*. Readers will come away with broadened understandings of literacies, defined by everything from electronic communications to indispensable face-to-face human relationships. In short, the authors provide a must-read volume for all in teacher education, literacy education, and digital technology, who seek to rethink and reform their multidisciplinary fields.

– Celia Genishi, Professor Emerita, Teachers College, Columbia University

Taking a multi-disciplinary perspective (literacy, teacher education and digital technology) and informed by a range of empirical studies, policy analyses and scholarly reflection, this book makes a unique contribution to the literature on one of education's most pressing challenges: how we prepare teachers of literacy at a time when understandings of literacy are expanding. Chapters by leading researchers are complemented by those offering illuminating vignettes of practice that, in turn, provide opportunities for interrogation by the rich theoretical toolkit that characterizes the field. The book is thoughtfully structured and manages a coherence that is rare in edited collections. An impressive and heartening read.

– Viv Ellis, Professor of Education at Brunel University, England and Bergen University College in Norway

To teacher educators and teachers around the world whose creative, skillful, and dedicated work is helping us meet the challenges of the digital era.

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FOREWORD

Anyone interested in technology and education will know that there is already a wealth of writing on the subject. Increasingly the most compelling commentaries are those circulated through tweets, blog posts and other forms of 'fast scholarship' that new media scholars are understandably attracted toward. A platform such as Twitter offers a fascinating stream of rapid responses and immediate reactions to what is a fast-changing area of debate. In contrast, then, a book such as *Building Bridges* marks a decidedly 'old school' approach. Yet in many ways this should be seen as a strength rather than weakness. A 200 page edited collection certainly provides a welcome break from the online chatter and churn that passes for informed discussion in this area. Perhaps, then, this book's virtues lie in what might appear to be its outdated approach.

Firstly, this is a book that is admirably old-fashioned in terms of *how* it was produced. Rather than constituting a quick cut-and-pasting together of fourteen disconnected essays, *Building Bridges* is the culmination of collective conversations that developed over time. Despite being scattered around the world, the authors and editors made the effort to meet and talk through these topics in person. They then worked over a prolonged period to produce this long-form book. In terms of 'digital scholarship' and the 'accelerated academy' these might all be deemed inefficient ways of going about things. Yet I am sure that the contributors consider their end-product to be much richer as a result. This project should remind the Twitterati what can be achieved through a sustained project of face-to-face discussion and long-form writing.

Secondly, *Building Bridges* is pleasingly old-fashioned in terms of *what* its authors are discussing. It might even be reasoned that the book contains a set of timely contributions – not because they are particularly new or 'of the moment' but because they tackle topics that have fallen somewhat out of sight. While the 1990s and 2000s was a period of ongoing deliberation of 'new literacies' and 'multi-modalities' these are no longer the hot topics that they once were. Imperatives of 'critical digital literacy' and 'twenty-first century skills' have also begun to disappear from policy priorities, funding streams and call for papers. Instead recent discussions of technology and education have taken a distinctly computational turn – addressing the challenges posed by big data, analytics, algorithms and coding. As such, *Building Bridges* might serve to remind people working in the area of education technology of the contribution that literacy educators can still make. It might even be that the book leads to the rebuilding of some old bridges.

Thirdly, this book is old-fashioned in terms of *who* is being talked about. Few writers currently working in the area of technology and education seem to care much for classroom teachers … and even fewer seem to care for teacher education.

If anything, many commentators appear distracted by questions of how digital technology might do away with the need for teachers altogether (as evident in discussions of teacherbots, virtual assistants and self-organized learning). In this sense, *Bridges* marks a commendable attempt to restate the importance of 'the teacher' in the digital age. Teachers and teacher education are unlikely to fade away as quickly as some technologists would like us to believe. As such, this book serves as a valuable corrective to such (mis)assumptions.

In many ways, then, these fourteen chapters remind us how educationalists working in the literacy tradition have long been attuned to the broader contexts of technology use, especially in comparison to disciplines with more technical and scientific pretentions. Indeed, some of the most rounded accounts of education and technology have been those produced by literary scholars working along sociocultural and sociopolitical lines. Here one thinks of Michelle Knobel, Colin Lankshear, Bill Green, James Gee, Gunter Kress and others. Of course, the momentum of these authors' work has faded during the 2010s, yet perhaps new titles such as *Building Bridges* herald a revival of this tradition. Certainly, the chapters in this book provide a decent account of technology use as embedded social practice – highlighting the history, philosophy, ethics and poetry of technology use in education.

Whether or not we are on the cusp of a full-scale renaissance, I have always appreciated how literacy scholars bring a subtly critical dimension to discussions of technology and education. This quality is certainly evident in many of the chapters in *Building Bridges*. These are accounts that do more than restate the exaggerated promises that often pervade discussions of digital education. Instead these accounts are suspicious of the reductive 'technology imperative', and question the cultural conservatism of official discourses of 'ICT' and 'technology enhanced learning'. Many of these chapters point to the complicated and constrained realities of teacher education in universities and schools. While no one is denying that teacher education and literary education are in the midst of significant change, the key questions running throughout the book relate to if/how teacher educators are able to influence this change.

Of course, few commentators want to be seen as out-of-touch 'dinosaurs' railing against 'innovation' and 'progress'. Yet as *Building Bridges* illustrates, being critical need not involve opposing the existence of digital technology altogether. One can speak against current forms of technology use in education without engaging in relentless doom-mongering. Instead the best chapters in this book also suggest ways of pushing back against current forms of technology use in schools and teacher education, and point hopefully to realistic alternatives. In this respect I would hope the book has something to offer all readers, from the most digitally immersed to the most digitally disinclined. These are conversations that everyone in education needs to be part of, and this book marks some very useful starting points.

Neil Selwyn
Melbourne, January 2016

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CLARE KOSNIK, SIMONE WHITE AND CLIVE BECK

INTRODUCTION

What does it mean to be literate in the twenty first century and how can teachers and teacher educators contribute to building a literate society? Our understanding of "literacy" is undergoing dramatic changes as an array of communication channels (e.g., text messaging, social networking, blogging) has extended and blurred the boundaries of communication and forms of knowledge construction (Kress, 2010). The fact that literacy now encompasses a broad set of practices necessitates a revision of traditional reading and writing programs in schools (Gee & Hayes, 2011), which in turn requires changes to teacher education. This constant change in how we communicate means that we need teacher educators who can incorporate digital technology into their courses and facilitate discussion on being literate in the 21st century. As the field of literacy evolves, teacher educators must rethink what literacy encompasses and revise their courses accordingly. As Williamson (2013) advises:

> Our courses must invite students to take stock of how their literacy instruction provides kids with access to learning opportunities to understand the resources and the practices that are available – and then to envision how these can be adapted and enhanced to achieve the rich, rigorous literacy goals that we set for our youth. (p. 2)

According to Boling (2005), however, "research has revealed that teacher educators do not always have the knowledge, skills, or dispositions necessary for meaningfully integrating technology into their classes" (p. 3). Often use of digital technology is an afterthought, something tacked onto a course (Bullock, 2011). In order to address the complexity of literacy in our 21st century we need to move beyond the traditional boundaries of the disciplines. As teacher educators struggle to address the increasing complexity of education, many have embarked on initiatives but with mixed success (Kirkwood, 2009; Selwyn, 2011). We believe part of the problem in moving forward is that most initiatives focus on a single issue (e.g., digital technology) whereas a multi-disciplinary approach is needed.

Building Bridges: Rethinking Literacy Teacher Education in a Digital Era builds on a symposium we held in London, England in June 2014, bringing together a team of experts from different disciplines namely teacher education, literacy education, and digital technology. As Gee and Hayes (2011) argue for a multi-disciplinary approach to research: "Understanding complex systems requires the work of more than a single lone expert. It requires a team of experts" (p. 73). The consensus among

this international group of researchers was that we need to rethink our practices in teacher education and inservice education in relation to digital technology and literacy education if we are to prepare student teachers more fully and support teachers more adequately. All felt we must be "in conversation" with experts in a variety of disciplines and with practicing teachers. Further, all agreed we need many more examples of exemplary practice of integrating digital technology into literacy courses. *Building Bridges: Rethinking Literacy Teacher Education in a Digital Era* addresses this gap in the literature. It is a powerful set of chapters focusing on a curriculum area – literacy – while making links to digital technology with special attention to teacher educators. This will be one of the few texts rooted in a specific discipline (literacy) that makes multiple connections with other aspects of education. The goal is ambitious; however, our contributors have the skills and knowledge to make significant progress with this mandate.

The contributors to the text are all recognized researchers with strong connections to both teacher education and schools. They have a deep understanding of the context of higher education and are fully aware of current issues in schooling, thus making their work relevant to many. They do not write for just one audience or have a narrow focus – they can do what Gee and Hayes (2011) suggest: implement a multidisciplinary approach. And given their extensive experience in teaching and research, all have many examples of exemplary practice to present in their writing.

The matters with which this book is concerned have been taken up by many literacy teacher educators in their everyday practice, keen to bridge current and progressive literacy education and address what Dooley, Exley, and Comber (2013, p. 67) describe as "the perennial issue of how do we attend to both the technical and the critical dimensions of literacy education." For many literacy teacher educators, their endeavour to address this question has led them to adopt new models and approaches, for example collaborative work between student teachers and school-based teachers focused on inquiry into the serious intellectual work of literacy teaching (Cochran-Smith, 1991). Creating spaces where student teachers can see and hear inclusive and critical approaches to complex literacy teaching with diverse student communities remains a key priority and an ongoing challenge (Dooley, Exley, & Comber, 2013).

The text has four sections. Section 1 contains anchor chapters concerned with key issues of digital technology, literacy, and teacher education. Presenting historical roots and then moving to current research, they provide a thorough grounding in their respective areas. Shawn Bullock addresses issues regarding digital technology in education; Lydia Menna outlines the changing nature of literacy; John Yandell looks at the impact of policy on teacher education and literacy education in England; and Judit García-Martín, Guy Merchant and Jesús-Nicasio García-Sánchez discuss preparing to teach 21st century literacies.

Section 2 includes conceptual papers and case studies of exemplary practices related to the use of digital technology in literacy courses in teacher education. Both kinds of chapter offer suggestions for ways to rethink teacher education. Sam

Twiselton draws on her review of different approaches to teacher education in England; Sue Dymoke provides an in-depth example of integrating poetry-focused digital technology within a literacy teacher education course; Bethan Marshall discusses her work of integrating multi-modalities in literacy/English education courses; and Rajeev Virmani and Peter Williamson present two case studies of classroom teachers who thoughtfully integrated digital technology into chemistry and English courses.

Section 3 considers teacher educators, who are of course key to the effectiveness of teacher education programming. Simone White and Jean Murray advocate fostering professional learning partnerships in literacy teacher education; Clare Kosnik and Pooja Dharamshi describe the goals and practices of seven literacy teacher educators who have integrated digital technology into their literacy teacher education courses; Scott Bulfin, Graham Parr, and Natalie Bellis analyze standards-based reforms and the technologizing imperative. Lin Goodwin and Crystal Chen present the findings of a large-scale suvey of 258 practicing teacher educators and in-depth interviews of a purposive sample on ways their doctoral program could have better prepared them for their role as teacher educators.

Finally, Section 4 begins with an analysis of the preceding 12 chapters in terms of several key themes that emerged: intertwining digital technology with our conception of literacy; the impact of the standards movement and current political pressures; determining overall goals for education; and professional development for teacher educators. It concludes with a chapter by Clive Beck, again based largely on the earlier chapters, on future directions for teacher education.

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SECTION 1

DIGITAL TECHNOLOGY, LITERACY, AND TEACHER EDUCATION

SHAWN BULLOCK

1. DIGITAL TECHNOLOGIES IN TEACHER EDUCATION

From Mythologies to Making

Noted historian of technology Melvin Kranzberg (1986) once remarked that while technology is neither good nor bad, it is also not neutral. Unfortunately, the use of educational technologies in teacher education has often been framed in an inherently positive way (Selwyn, 2011), with little attention paid to how future teachers might develop a sense of technology beyond a specific device. In this chapter I will make the argument that these sorts of approaches to the use of technologies in teacher education are ubiquitous both historically (e.g., the use of Educational Television) and recently (e.g., the use of Interactive Whiteboards). The troubling history of educational reform using digital technologies will be briefly reviewed. We will then see that one of the reasons for the failure of technology to make a significant impact on teacher education is that it fails to attend to the major challenges of learning to teach. Another reason for the problematic use of technology in teacher education is the prevalence of two particular myths about the relationship between technology, learning, teaching, and learning to teach. Two models will be introduced as useful heuristics for thinking about the pieces that are typically missing when teacher candidates are engaged in learning about digital technologies. I will argue that teacher educators need to engage candidates in thinking about the history and philosophy of digital technologies so that candidates may learn *about* technology instead of solely focusing on mastering a particular device. A concept known as *maker pedagogy*, which I am currently exploring in my work, is then presented as a way of encouraging teacher candidates to understand the nature of technology. I argue that making technological things may enable teacher candidates to learn about technology.

EDUCATIONAL TECHNOLOGY: THE MYTHOLOGY OF BETTER TEACHING, FASTER

Nowadays the words *educational technologies* bring to mind images of tablets, interactive whiteboards, and computers. Indeed educational technology is tacitly understood by most to be synonymous with both the digital world and novel devices. It is easy to forget that the education system itself is a technology, designed in part

C. Kosnik et al. (Eds.), Building Bridges, 3–16.
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to produce a literate population and to pass on particular social norms. The popular press frequently tells us about the latest "must-have" gadgets and software to enable new approaches to teaching and learning, which are ostensibly more efficient, more productive, and more engaging. A plethora of apps available through Apple and Google compete for the attention of students, parents, and teachers. Whereas computers were once framed as critical tools for the modern educator of the late 20th century, the notion of taking students to a computer lab seems out-dated nowadays with the realities of carts full of iPads that can be moved from classroom to classroom. Interactive whiteboard companies seek to be as ubiquitous in classrooms as their slate predecessors.

It is always worth remembering that the concept of utopia – technological or otherwise – requires us to consider its often-overlooked definition of "no place." The history of educational reform is grim; the history of educational reform due to technology is even less heartening. Cuban's (1986) excellent discussion of the use of technology in education provides much-needed sobering reminders about the ubiquitous cycle of technological adoption: enthusiasm, small-scale implementation, and status quo. He reminds us that Edison once predicted that motion pictures would render teachers obsolete. Reiser's (2001) discussion of the widespread adoption of motion pictures by the US military during the World War II for training purposes reminds us that there have been large scale uses of "training films" in educational contexts, although the trend never did catch on in schools in the ways envisioned by Edison and other technological enthusiasts.

Over the past few years, 21st century techno-enthusiasts have proudly proclaimed that Massive Open Online Courses – commonly called "MOOCs" – will "succeed" where motion pictures "failed" and take a primary role in classroom instruction, particularly at the post-secondary level. This kind of rhetoric seems to have reached its most fevered pitch between 2012 and 2014, when the death of the traditional university was proclaimed on an almost weekly basis as MOOCs created by "the best" professors would be available to all. One hears considerably less about MOOCs nowadays, perhaps in no small part due to their dismal completion rates (see Jordan, 2015, for an interesting data visualization tool). The university, and the education system at large, seems to have survived the latest unstoppable technological reform – at least for now.

Cuban's (1986) work again demonstrates that we should not be surprised by the failure of MOOCs to encourage sweeping educational reform. In many ways, the concepts underlying MOOCs have been tried before with different media dubbed *educational radio* and *educational television*. In both cases, the idea was to tune into expertly crafted curriculum content at a particular time of day. Teachers were reduced to the ones operating the technology – literally turning the dial – and assessing how well the students understood content from distant experts. It is hard to imagine a clearer metaphor for framing teachers as delivers of curriculum, expected to implement what they were told with little creativity or respect for craft knowledge. Neither educational radio nor educational television displaced the role of teacher in

children's learning; the former reached its zenith in the 1940s and the latter found a home as an on-demand supplement to a teacher's enacted curriculum, rather than the basis of curriculum. The ways in which educational television and films have been used historically closely resembles the ways in which teachers in this century use internet video sites such as YouTube to supplement their lessons – as an on-demand media supplement to instruction, a source of ideas for teaching, and a professional development resource for content knowledge (Szeto & Cheng, 2014). Despite a recent proclamation that Sesame Street was the first MOOC (Kearney & Levine, 2015), educational media has never accomplished what its enthusiasts continually suggest despite the historical precedents: Teachers have not been replaced, or even marginalized, by educational technologies.

The Mythology of Better Teaching, Faster

It is worth taking a few moments to examine why educational technologies have such a dismal record of educational reform. I believe there are two sets of reasons for why this is the case, and that both are grounded in problematic mythologies. The first and most obvious set of reasons is that the case for using technology in education at any level is often made in economic terms. I refer to this mythology as "better teaching, faster." If one adopts the view that quality teaching is simply a matter of delivering the correct content to the correct group of students in the most efficient way possible, then it is difficult to quibble with the idea that on-demand media offers a lucrative solution. In the age of internet video, many of us turn to YouTube for our first stop in, say, learning how to perform a household repair or learning what others think of a particular product we are considering purchasing. Distance education – which for most of its existence has relied on the literal delivery of curricular materials in the form of coursepacks, cassette tapes, or CDs – has long made use of the human capacity to learn from media. So it is absurd to claim that we cannot learn from educational technologies (including books, cassettes, CDs, and internet videos), and those who argue for the widespread adoption of media in education seem to have at least a warrant for their reasoning.

The problem is that, in my view, most of the reasons for adopting educational technologies in widespread ways have been grounded in economic reasoning that has little to do with enhancing the quality of students' learning. So, technology enthusiasts often make their case in terms of efficiency models – having the best lessons at the ready will save both time and money in the long run, they say. Curricular theorists have long argued that teaching is, or at least should be, far more than transmissions of content. So although the author of a MOOC or an educational radio program may indeed be an expert in her or his field, we have not in my view yet reached a point where educational technologies can supplant a teacher who is playing an active role in a classroom, reflecting a transactional or transformational orientation to curriculum. To be clear, I am not at all suggesting that the use of digital technologies in education is always purely for transmission purposes, nor