

CHAPTER 1

Our Ethical Imperative

In late 2024, I had the opportunity to present on the topic of AI in education to a group of teachers at the Science Centre Singapore. Afterward, my wife and I stumbled on an exhibit about bioethics as we discussed the receptiveness of the audience to thinking critically about the role of AI in teaching. As a psychiatrist and philosopher duo, we were very excited to venture through the hallway and see our worlds collide. Above all the gizmos and gadgets was a simple sentence that stuck with me: “Just because we can, doesn’t mean we should.” I glanced over at my wife and saw her knowingly looking back; that short sentence, displayed in big, bold letters, summed up what I was trying to convey during my presentation in big, bold letters.

This tension is one that educators worldwide are experiencing: the gap between technological possibility and educational wisdom. The bioethics exhibit reminded me that similar questions arise whenever powerful new technologies emerge: nuclear energy, genetic engineering, and now, artificial intelligence. In each case, society must confront the fundamental question of how to harness innovation responsibly and not solely because it is possible. Educators in particular have an onerous burden to answer those questions with intentionality as the decisions we make about technology directly shape the young minds of future citizens who go on to build, regulate, and use the technologies of the future.

The last few decades have seen a consistent surge in technological innovation, and with those surges have come new, flashy, and seemingly promising interventions that claim to solve the problems that have plagued education systems across generations and contexts. A lot of times, educators, students, parents, and administrators are attracted both to the novelty and the promise and jump on board the latest technological fad. And of course, there is merit in remaining nimble in our pedagogy and adding to our collection of tools, but there is also merit in pausing and asking ourselves “Why?”

Cycles of Adoption

This cycle of technological adoption in schools follows a familiar pattern. A new technology emerges with promises of transformation. As documented in studies of computers in classrooms, as early adopters embrace it enthusiastically, other schools and districts quickly implement the technology, fearing they might fall behind, often without sufficient planning or critical assessment.¹ Teachers receive minimal training and are expected to integrate it seamlessly. Students become unwitting participants in what amounts to a massive ongoing experiment. Then, before the impacts of this technology can be fully understood, the next innovation arrives, and we enter the cycle again.

We see this pattern continue with interactive whiteboards, learning management systems, tablet initiatives, and now with artificial intelligence. While each new innovation brings genuine possibilities, this potential is paired with exaggerated claims, commercial pressures, and insufficient ethical consideration.

The pace of technological change in education has accelerated dramatically. What once evolved over decades now transforms in months. The COVID-19 pandemic further compressed this timeline and forced schools to adopt remote learning technologies overnight.² Now, the rapid growth of artificial intelligence has introduced many of the same problems.³ This acceleration leaves little time for thoughtful consideration of long-term implications, unintended consequences, or alignment with our core educational values.

Amid this technological acceleration, educators and school leaders find themselves making consequential decisions with incomplete information, minimal guidance, and intense pressure from vendors, parents, students, and policymakers. And, the stakes of these decisions extend far beyond learning outcomes and into the realms of student privacy, equity, well-being, and the fundamental purpose of education.

Before we adapt our classroom instruction to every new technological breakthrough, we ought to spend some time thinking about the “why” so we can answer the other follow-up questions of “what,” “how,” “when,” “where,” “who,” and “for whom.”

In this book, I hope to equip educators and school leaders with the resources to ask those necessary questions with rigor, nuance, and precision. Doing so requires drawing from a robust tradition of asking such questions: philosophy.

Dangers of Speed

At this point, it will be helpful to ask ourselves why engage in this navel-gazing activity? After all, we have real students with acute needs that cannot afford to wait for us to translate thousands of years of philosophy into policies and practice. While it is true that we will trade off expediency with this process, the danger is too much for us to continue operating

¹ Cuban, *Oversold and Underused*.

² Jacob and Stanojevich, “Rewiring the Classroom.”

³ Furze, *Practical AI Strategies*

without establishing ethical frameworks that help us minimize the harm. These dangers include threats to:

Student development: Students' use of technology impacts their learning, but along with it, it also affects their identity, agency, and cognitive development. We must ensure our decisions are respecting their autonomy, supporting their well-being, and protecting their sense of self.⁴

Equity: Technology can both aggravate and repair the large gaps we have in our educational systems. We must evaluate our decisions to measure whether we are further exacerbating these problems or making progress toward solving them.⁵

Democracy: As society becomes increasingly reliant on technology, so too do our democratic processes. Public discourse, civic engagement, and entire bureaucratic systems are being reshaped by technology. We must prepare our students to navigate these spaces in ways that protect their civic agency as individuals and our democratic norms as a society.⁶

Economic: While these technologies are infiltrating our schools, they are even more rapidly infiltrating our workspaces. We must shape our curricula knowing that the careers that our students will have available to them when they graduate will be dramatically different from the ones we are preparing them for.⁷

Cultural: Technology also impacts the way our students develop their attention, navigate their relationships, and understand and participate in culture. We must help our students build healthy habits that build positive, fruitful relationships with their peers and society.⁸

Multiple Ends

The dangers are real, and this is further complicated by the unique complexity of ethical challenges in education. Education serves multiple purposes simultaneously: developing autonomy, preparing students for economic participation, fostering civic capabilities, and promoting personal flourishing.⁹

Our decisions in education must be evaluated against this full spectrum of educational aims, not merely academic outcomes or engagement metrics. The autonomy, privacy rights, and

⁴ Idrees et al., "Associations Between Problem Technology Use, Life Stress, and Self-Esteem Among High School Students"; Dienlin and Johannes, "The Impact of Digital Technology Use on Adolescent Well-Being."

⁵ OECD, "Digital Divide in Education"; Moore et al., "The Digital Divide and Educational Equity: A Look at Students with Very Limited Access to Electronic Devices at Home," August 2018.

⁶ Noveck, "Artificial Intelligence Can Help Us Create a More Efficient Government"; Noveck, "Digital Mirror to Our Deliberation."

⁷ Parker, "U.S. Workers Are More Worried Than Hopeful About Future AI Use in the Workplace"; West, *The Future of Work*.

⁸ Laird et al., "Hand in Hand: Schools' Embrace of AI Connected to Increased Risks to Students"; Andoh, "Many Teens Are Turning to AI Chatbots for Friendship and Emotional Support."

⁹ Allen, *Education and Equality*; Gutmann, *Democratic Education* Levinson, *The Demands of Liberal Education*; Brighouse, *On Education*; Brighouse et al., *Educational Goods*.

developmental needs of the youth affected differ from adults, and these stakes are unfolding in educational contexts with unique responsibilities and power dynamics. But the challenges of educational technology are even more complex because they also involve rapidly evolving technologies.

Consider just a few of the dilemmas educators face daily:

- ◆ A math department must decide whether to adopt an AI-powered personalized learning platform that promises improved outcomes but requires extensive in-class screen time.
- ◆ A middle school principal must create policies for student-owned smartphones that balance educational use, social development, distraction concerns, and family communication needs.
- ◆ A high school English teacher must determine whether AI writing tools represent a threat to learning or an opportunity for modern instruction.
- ◆ A district technology coordinator must evaluate ed tech products knowing that student data has become a valuable commodity in the digital marketplace.

Each of these dilemmas reveals a common pattern: what initially appears straightforward becomes complex when we consider the full range of stakeholders and outcomes involved. Oftentimes, the answer might seem obvious to us: “Of course, we should use the new tool that students are all raving about,” or “We cannot possibly restrict student access to this technology they are already using outside of the school.” Other times, we are sold on promises of “revolutionary,” “magical,” and “engaging” tools that are hard to resist when we feel the pain of the status quo.

However, in not slowing down and asking the right questions, we do a disservice to our students who are often adversely affected by such decisions. But, we also do a disservice to ourselves by expending time and energy on technology that does not truly serve our goals.

What makes these decisions particularly challenging is that they involve genuine tensions between legitimate values, not simple choices between right and wrong. Privacy must be balanced with personalization. Engagement must be weighed against potential distraction. Innovation must be considered alongside equity concerns. Efficiency gains must be evaluated against relationship impacts.

When faced with such complex ethical questions, simplistic approaches prove inadequate. Blanket policies either embracing or rejecting technology fail to address the reality of educational contexts. Purely technical solutions ignore the human and ethical dimensions of technology implementation. Meanwhile, isolated and rushed decision-making overlooks the interconnected nature of our choices.

Schools' Difficult Role

Given these competing legitimate values and complex trade-offs, one might wonder whether ethical deliberation can provide any real guidance, or if we are simply choosing between equally valid options. The answer becomes clear when we consider the unique position schools occupy in society and the profound responsibility they carry.

Schools occupy a unique position of public trust that no other profession quite matches. Doctors treat patients who consent to care, lawyers represent clients who seek their services, and software engineers design products that people can choose to use or ignore. By contrast, teachers and administrators shape the lives of children who are legally required to attend, who are developmentally vulnerable, and who depend on adults to make decisions on their behalf. This is why philosophers are uniquely challenged by questions of ethics that deal with schooling and parenting.

We must balance loyalty to the community (what is good for society) with loyalty to students (what is good for each student). We must make decisions that stand up to public scrutiny, both from community members and parents. And we must make decisions that have long-lasting future consequences based on the limited information we have in the present.

The compulsory relationship means that schools carry responsibilities beyond the individual well-being of each student. They are entrusted with preparing future citizens, transmitting cultural and social values, and balancing competing community expectations. Their choices affect democratic trust, economic opportunity, and social cohesion for generations. This combination of vulnerability, compulsion, and civic responsibility makes the ethical stakes in our schools distinctively important.

This distinctive position of trust and vulnerability intensifies the need for systematic ethical reasoning. It is why ethical paralysis in claiming that if harm is unclear, we might as well act in the name of urgency, ease, or fad, is unacceptable. Our responsibility is far too great and the implications far too long lasting and wide reaching for us to not concern ourselves with maximizing the morality of our decisions.

Diverse Visions

The ethical complexity of educational technology decisions is further complicated by the diverse stakeholders involved, each bringing legitimate but sometimes conflicting perspectives.

Students experience educational technology most directly, yet often have the least formal voice in decisions affecting them. Their perspectives vary dramatically based on age, socioeconomic background, learning needs, and technological access. Some students embrace technology as a means of personalization and engagement; others experience it as surveillance or distraction. Some have 24/7 access to the latest devices; others rely entirely on school-provided technology.

Teachers implement technology in the complex reality of their classrooms. Their professional judgment about pedagogical appropriateness, classroom management implications, and student needs represents crucial expertise. Yet teachers often find themselves caught between administrative mandates, vendor promises, student expectations, and their own teaching philosophies.

School leaders must make system-wide decisions balancing educational goals, budget constraints, technical capabilities, policy requirements, and community expectations. They face pressure to demonstrate innovation while ensuring equitable implementation, data security, and measurable outcomes.

Parents entrust schools with their children's education and development, bringing their own values and concerns to technology decisions. Parental perspectives are informed by their own wide spectrum of technological literacy and access. While many embrace technology's potential to prepare students for future careers, others worry about screen time, privacy, or emotional well-being.

Technology companies create tools that shape the educational experience while operating within commercial incentives that may not perfectly align with educational values. Their expertise in technology development must be balanced against educators' expertise in learning and development.

Policymakers establish the regulatory context for educational technology, often with limited understanding of classroom realities or technological complexities. Their decisions about data privacy, internet access, device funding, and curriculum standards create the framework within which local decisions occur.

Each of these stakeholders brings valid priorities and concerns to the conversation. The challenge is creating decision-making processes that meaningfully incorporate multiple viewpoints while remaining grounded in core educational values.

Thus, in this book, I ask you to slow down with me. Draw on ancient and modern philosophical traditions, think about the policies that can serve as our foundations, and practice the kind of deliberate decision-making that will both safeguard our pedagogical spaces from the dangers of a rapidly evolving technological landscape and bolster them with the advances that stand to benefit our students in ways we may have never imagined in the past.

Philosophy-Policy-Practice

This book is organized into three sections connecting philosophical foundations to daily practice and provides a pathway from philosophical principles to concrete implementation decisions.

PHILOSOPHY: THE FOUNDATION

The philosophical level addresses fundamental questions about values, purposes, and principles. It asks: What matters most in education? What are our non-negotiable commitments? What are we trying to achieve through technology integration? What kind of educational experience do we want for our students?

Without clarity at this foundational level, technology decisions risk being driven by fashion, fear, or false promises rather than educational values. Section A, thus, explores these philosophical foundations, key ethical frameworks, core value commitments, and the historical and ethical context of educational technology that should guide implementation.

When schools lack clarity about these things, technology decisions tend to follow the path of least resistance. This means adopting what is popular, what is marketed most aggressively, or what seems easiest to implement rather than what best serves education's purposes.

POLICY: THE STRUCTURE

The policy level translates philosophical foundations into concrete guidelines, procedures, and commitments. Well-crafted policies can provide guardrails that enable stakeholders to make daily decisions without prescribing universal answers for every situation. As such, they create the structured context for individual decisions, ensuring consistency while allowing appropriate flexibility. Effective policies serve multiple functions: they articulate institutional commitments, establish evaluation criteria, create decision-making processes, delineate responsibilities, and provide guidance for addressing both typical and exceptional situations. Rather than constraining professional judgment, well-designed policies can create the conditions for thoughtful practice.

To this end, Section B examines how to develop policies that remain faithful to philosophical foundations while addressing the practical realities of school environments and current regulatory frameworks. This includes guidelines for evaluating technology tools, approaches to student data and privacy, building a culture of ethical deliberation, and processes for involving all relevant stakeholders in these decisions.

PRACTICE: THE APPLICATION

The practical level involves applying philosophical principles and policy frameworks to specific situations that mirror the daily decisions educators make about technology integration. This is where abstract values and formal policies meet the messy reality of classrooms.

Section C explores this practical level through detailed case studies. Each case examines how principles and policies might guide decisions in specific contexts. These demonstrate that ethical practice requires both fidelity to foundational values and sensitivity to particular circumstances.

This practice strengthens the capacity to recognize what matters ethically in specific situations and determine appropriate action.

Deliberative Ethics

To be clear, this book will not provide definitive answers to every technology question schools might face. Given the pace of technological change and the diversity of educational contexts, such an approach would quickly become obsolete.

Rather, this book seeks to develop our collective capacity for ethical reasoning about technology: the ability to ask important questions, consider multiple perspectives, apply relevant principles, and make thoughtful decisions in specific contexts. The core argument of this book is that ethical technology implementation requires community alignment across three domains: philosophy (what we value), policy (what we commit to), and practice (what we do).

But, my fear with presenting philosophical concepts as deliberation tools rather than didactic rules to follow is that it sends the message that ethics is based on our individual personal

whims. In fact, our philosophy, policy, and practice framework makes ethical decision-making more rigorous, not less.¹⁰

First, it highlights *shared values* that are central to education and schooling. Schools not only have a diversity of stakeholders (parents, students, teachers, administrators, community), but they also have diversity within those groups. Each member of a school's community has their own value systems that define how they approach moral decision-making. They might draw from their cultural history, religious belief, family values, political values, and lived experiences. All of these stakeholders need a shared framework to talk to each other on common grounds about a joint endeavor: educating our children. To help build that common ground, we need to highlight the values that we all have in common when we discuss education.

Second, it provides *shared vocabulary* for us to speak to each other. In this book, I draw from a variety of schools of thoughts and thinkers to provide vocabulary for describing those values. Thus, Section A builds the fluency to talk about the guiding principles, relevant stakeholders, and important stakes that support our decision-making. This allows us to draw from a shared bank of concepts when we think about a course of action; and it begins to build a culture of ethical reflection in education. With that as a starting point, we can all ask ethical questions and shape ethical practices together much more easily.

Third, it centers the importance of *iteration* as we learn new information. Theoretical discussions and guiding principles will only get us so far. We have to test them in the real world and engage in reflective equilibrium to find the balance between our principles and our judgments. This makes the flexibility of our framework, its strength. If we commit too rigidly to concrete rules, we lose the ability to modify them based on our professional experience, group deliberations, and new questions and cases as they arise.

Finally, this approach allows for a process of answering ethical questions as they arise based on *contextual judgments*. With the general frameworks, policies that institutionalize them, and practice applying our principles, we build the knowledge and disposition to approach new situations as they arise. Especially in educational technology, where new ethical challenges seem to arise overnight, we need to be prepared to approach these swiftly and thoughtfully using our shared reasoning methods to balance competing values, justify our choices, and act with integrity even when clear precedents do not yet exist.

An Invitation

The technological landscape of education will continue to evolve in ways we cannot fully predict. New tools will emerge, offering both genuine possibilities and exaggerated promises. The ethical questions will shift in response to technological capabilities, social contexts, and educational priorities. What remains constant is the need for thoughtful engagement with these questions. We must keep asking not just whether we can implement a technology, but whether and how we should.

¹⁰ Levinson, "We Need a Field of Educational Ethics"; Habermas, "Justification and Application"; Shapiro and Stefkovich, *Ethical Leadership and Decision Making in Education*; Gutmann, *Democratic Education*.

I invite you to approach this journey with both critical thinking and open-minded exploration. The ethical questions surrounding educational technology have no perfect answers, but we can thoughtfully approach the decisions in ways that respect the complexity of the issues and remain faithful to core educational values. My hope is that this book serves as a starting point for ongoing reflection, conversation, and action as we navigate the technological transformation impacting education together.

The bioethics exhibit that I started this chapter with offered wisdom that applies equally to educational technology: “Just because we can, doesn’t mean we should.” While I encourage critical reflection on technological integration, I do not argue that we ought not to integrate educational technology. In fact, I hope we can realize some of our largest goals of education by using these tools intentionally. The path forward lies not in wholesale adoption or rejection of technology, but in thoughtful integration guided by pedagogical priorities and human values. So perhaps we might also add: “Just because we haven’t, doesn’t mean we shouldn’t.” It is to that worthy challenge that this book is dedicated.

Exit Ticket

Reflect: Can you identify a technology your school adopted enthusiastically but later abandoned? What questions might have prevented this cycle?

Act: Identify one upcoming technology decision. Prepare three questions you might share with your colleagues, drawing from this chapter’s argument.

Advocate: How could your school make more room for ethical reflection before major technology adoptions?

