

CHAPTER 1

New Possibilities

It may surprise you to learn that teenagers in Nepal are using massive open online courses (MOOCs) to learn English and Egyptian, study dinosaurs, and take high-level STEM courses. On Episode 33 of *Silver Linings for Learning*, a weekly online show hosted by me and four other professors discussing educational innovations during the COVID-19 pandemic, we had five Nepalese students and two teachers as guests. They told an unexpected story of learning beyond the limits of their impoverished, rural schools. Nepal, a very small country largely located in the Himalayas, has a population of about 28 million. Nepal is not a wealthy country; with a nominal GDP of just above \$1,000 in 2019, the country ranks about 159th in the world. But in this poor and remote country, teenagers have started learning from MOOCs offered by universities and other providers in the United States and other places.

In fluent English, the Nepalese students told wonderful stories of their experiences taking forty to seventy MOOCs over the past few years. They were introduced to MOOCs and supported by Mr. Baman Kumar Ghimire and Mr. Bishwa Raj Gautam, two teachers, but their learning has been entirely self-directed. One student started with a course about dinosaurs and became so interested that she studied world history to better understand the history of dinosaurs. It was a completely new world to her, as she said on the show. The students were nervous when they first started taking MOOCs, because they did not know what

they would encounter. They had to manage their time because they also had regular school to attend. They had to convince their parents with their certificates that they were doing something meaningful outside of their own school.

The results are amazing. Beyond just the content these students learned in the online courses, they also learned to be independent. They learned that there was a world beyond their classrooms. They learned that they could have access to that world and participate in it. (You can watch this episode of *Silver Lining for Learning* and other videos by going to <http://bit.ly/learnerswithoutborders>.)

This is not to say that MOOCs are the only way for students to have access to an outside world or that MOOCs work for everyone. The message is that students, however young, can learn anything from outside their school. Today, we have MOOCs and YouTube. We have Google and Facebook. We have Khan Academy and many other courses online. We have the local community and local experts. Not one works for all, but each and every student can become owners of their learning by accessing these rich resources. They can learn beyond what is prescribed for them by a government or an educational system. They can learn without being directly taught by a teacher in their local situation.

THE FAILURE OF EDUCATIONAL REFORMS

Students have rarely been considered an active and intentional partner in efforts at educational reform. The government-led and government-driven reforms over the past few decades have played with almost all the essential elements of education. They changed curricula. They tweaked assessments. They tinkered with teachers and teaching. They held school principals accountable. They experimented with class sizes. But they never touched students directly. Students have been simply the recipients of the reforms, of the massive changes that have been created for them.

The results have not been good. The desired outcomes of the reforms have been excellence and equity—excellence being higher levels of achievement by all students and equity being a closure of the achievement gaps among different groups of students. After decades of reforms, education has not achieved either of these

aims. Take the National Assessment of Education Progress (NAEP), the national report card of the United States, as an example. The most basic indicators of educational quality, the assessment of math and reading, has not seen significant improvement. The 2019 reading assessment shows that, on average, American twelfth-graders did significantly worse in 2019 than in 1992, when the assessment was first given (NAEP, 2020b). The students' math performance in 2019 on average shows no difference from that in 2005 (NAEP, 2020a). The achievement gaps between Black and White students and the gaps between Hispanic students and white students remain large (Bohrstedt, 2015; Zhao, 2016). International assessments such as the Programme for International Student Assessment, better known as PISA, and the Trends in International Mathematics and Science Study (TIMSS) have indicated no significant improvements in most educational systems' performance over the years. The performance of most educational systems essentially stayed very much the same over the past two decades (Mullis, 2016; OECD, 2019).

OUR CHANGING WORLD

In the meantime, a lot has changed over the past three decades. Today's world is drastically different from what it was in the 1990s when TIMSS and PISA took measures of the world's students' performances and national educational policies zeroed in on the achievement gaps in education. The Internet was just beginning in the 1990s, but today the world cannot exist without it. Products and services such as Google, Twitter, Facebook, YouTube, iPhones, Amazon, eBay, and TikTok have penetrated virtually every corner of the world and altered the way we live. New technologies have displaced millions of people from their jobs and created millions of new possibilities. They have ended industries and created new ones.

The technological changes have brought new expectations for our children. It has become certain that for our children to thrive in this new world—which is still being changed by emerging technologies such as artificial intelligence, big data, and nanotechnology—they have to develop new abilities and skills. These new competencies, generally referred to as “21st century skills,” include new school

subjects, such as financial literacy and computer coding; capabilities such as creativity and entrepreneurial thinking; skills such as critical thinking, communication, and collaboration; mindsets and attributes such as curiosity, growth mindset, and resilience; and knowledge of social and emotional well-being and physical health.

As we were struggling to improve the traditional measures of education and help students learn the new skills and abilities, COVID-19 came. This pandemic disrupted education globally in unprecedented ways. While billions of children were sent home as schools closed, a new form of learning began. Remote learning, almost overnight, became a common solution—at least for a short time, depending on which country students were in. In the various forms of remote learning, students had to adapt to however the learning opportunities were offered. Teachers, as well, had to be innovative and adaptable. Innovative approaches were taken, although, by and large, remote learning was not considered a tremendous success.

HOPE FOR THE FUTURE

The stories of students from Nepal are enlightening—and there are many similar stories all over the world. Young students anywhere can learn from online courses because they are so widely available. Local efforts by people like Mr. Baman Kumar Ghimire and Mr. Bishwa Raj Gautam to create a system of support are also essential to this success. In other words, we have students who are interested in learning outside their school. We have MOOCs and other online resources that have been created by various individuals and institutions. We also have adults who are able to create a local support system. These three elements are what we will need to cultivate different forms of learning in the future.

This book is about creating such a future. How do we do that? First, we must be able to imagine a bigger learning context for our students. For too long, students have been placed within the borders of learning. Their learning has been tightly linked to the *school pathway*, which specifies that all children need to be in school and go through schooling, grade by grade, before they can graduate and pursue higher learning or enter the workplace. The school pathway also gives students the borders of curriculum, assessment, and classroom: students' learning is limited to what

has been prescribed in the curriculum, what is assessed, and what individual teachers teach in the classroom. However, given the recent advances in computer and mobile technology, students need not be so confined.

Second, we must encourage and enable students to take ownership of their own learning. One of the reasons that educational reforms have failed to deliver results is a lack of involvement by students. The reform efforts have been directed at strengthening the grammar of traditional schooling—enhancing the curriculum, strengthening teaching, and improving assessment. In other words, the goal was to strengthen the borders of learning. But students are the learners. They have their own passions and interests, strengths and weaknesses, and personal contexts. Unless they are involved as change makers and can make schooling work for them, it is unlikely that school outcomes will change. Moreover, to learn the new and emerging knowledge and skills required in the age of “smart” machines, students will have to follow different pedagogical approaches from traditional direct instruction. They will have to learn through experiencing, through inquiry, through working on projects, and through tackling unknown problems.

Unless students are involved as change makers and can make schooling work for them, it is unlikely that school outcomes will change.

Third, local teachers and school leaders need to create an ecosystem to introduce students to and support their learning outside the school. The ecosystem should have the capacity to introduce students to opportunities and resources in the global ecosystem. It should also have personnel acting as advisors and facilitators to support the learning. In addition, it ought to involve small communities of learners and teachers working together to help each learner grow and participate in the global learning environment.

Finally, we need a lot of learning resources, institutions, mentors, experts, and educators around the world. These resources, institutions, and people, together with participating students, form the global ecosystem. This ecosystem is already there—with YouTube, Google, and all sorts of social media (as well as institutions and individuals) offering courses and learning

experiences. This ecosystem can, of course, grow even further, and it is already doing so.

The future of learning is students participating in a global learning ecosystem with the support of their local schools.

In this book, I present the future of learning, which is possible today. The future of learning is students participating in a global learning ecosystem with the support of their local schools. In this new ecosystem, students will be liberated from the borders of the previous, failed system.

There are many books and articles on how to improve schools and classrooms. There are also many arguments that schools are outdated and should be abolished. At this moment, neither approach has a chance of working well. It is doubtful that small improvements in the curriculum, in teaching, and in assessment can truly help our children develop the knowledge, skills, attitudes, and values required in the new world. At the same time, I don't believe that schools, as a social existence, can or should be abolished. What we need is to maintain schools as educational institutions but enact significant transformative changes. We need to create space and develop support for students to become the owners of their learning.

This book is a call to action. It is intended to help educators, education policy makers, parents, and students imagine a different kind of learning, a learning that is owned by students. This book has many examples of the forms and formats of the new learning, as well as examples of how to make such learning happen, but it is not my intention to present a step-by-step prescription for all educators and schools to make the change. I strongly believe that educators, school leaders, parents, and students are all capable of making significant and meaningful changes when they are sufficiently inspired and motivated. I also strongly believe that contexts matter—different classes and schools can and should make different changes. I want this book to inspire and motivate people to take action to make those big changes.

To make the big changes will require a lot of small changes in classrooms and schools. In Chapter 2, we will focus on the aspects

of education that limit our students today. In Chapter 3, the discussion is about recent technological changes and the abundance of opportunities that now exist for students to learn outside of their school. Chapter 4 is about the school pathway, which has created borders within the school and which we should consider reorganizing. Chapter 5 discusses new possibilities to personalize the curriculum for all students. I propose that a student's curriculum can have three parts—government-mandated, school-mandated, and personal. In this way, students would have common knowledge and skills to help them function as citizens but also unique strengths and passions to enable them to thrive as individuals. Chapter 6 makes the argument for decentralized teaching and learning: Teachers no longer need to teach classes for all their students. They can arrange for students to learn in other ways, from outside sources of knowledge. This changes the teacher's role from traditional instructor to consultant and supporter. Chapter 7 turns to the learner. It discusses how to help each learner become self-determined and the owner of his or her learning. Chapter 8 brings it all together and discusses how we can help all students become *learners without borders*.

Do not copy, post, or distribute