EQUINOX
SUMMIT

LEARNING 2030

Equinox Communiqué

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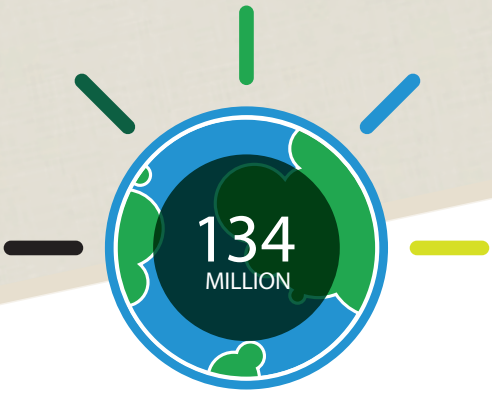
Learning 2030

Overview

number of children
that will be born into
the world this year



A child born today will graduate from high school into a world very different from today's. By 2030, just knowing facts will have little value. Education will need to equip learners to think creatively, independently, rigorously, and collaboratively in full awareness of themselves and their social context. How do we get there from here?

We know that a caring relationship between student and teacher will be at the centre of the successful learning experience, just as it is today. Unfortunately, even our most capable and committed teachers are striving to prepare students for the 21st century while working within an educational model developed for the 19th century.

The antiquated nature of this model is already causing problems. Today, about a third of the world's children never even begin high school, and many of those who do start will drop out before the end. Even those who finish often end up disengaged from learning. This represents an enormous loss of human potential--and a huge economic cost to society. We ought to do better.

And the good news is, we know we can. In a few places around the world, innovative educators are effecting change, and creating the flexible, agile learners the 21st century requires.

The goal of the Equinox Summit: Learning 2030 was to identify these beacons of change, assemble them into a coherent vision of learning, and map out a way to make this vision not just an occasional reality but the norm.

For Equinox Summit: Learning 2030, the Waterloo Global Science Initiative brought current leaders in education, teaching professionals, researchers, and policymakers together with young people who have innovated in their learning journey. This unprecedented gathering represented six continents, diverse socioeconomic backgrounds and disenfranchised and disadvantaged communities to give a truly global and intergenerational perspective on learning. Together, the group created a vision of a scalable, affordable, sustainable learning system for the high school graduates of 2030.

We present our vision in this communiqué. The Equinox Blueprint, to be issued in a few months, will flesh out this vision and provide a road map for making it a reality.

The results of our deliberations have convinced us that every child, no matter where they live in the world, can develop the skills and character needed to thrive in 2030.

We think this is a future worth working toward.

The Goals

In order for high school graduates to reach their full potential in life, they need to be:

- lifelong learners who can identify and synthesize the right knowledge to address a wide range of challenges in a complex, uncertain world
- literate, numerate, and articulate
- creative, critical thinkers
- able to collaborate effectively with others, especially those of different abilities and backgrounds
- open to failure as an essential part of progress
- adaptable and resilient in the face of adversity
- aware of the society they live in and able to understand the different perspectives of others
- self-aware and cognizant of their own strengths and limitations
- entrepreneurial, self-motivated, and eager to tackle the challenges and opportunities of their world

To achieve these goals, we require a radically different structure for learning in 2030, one in which traditional concepts of classes, courses, timetables, and grades are replaced by more flexible, creative and student-directed forms of learning. This develops deep conceptual understanding, which can then be applied in other contexts.

We envision a system in which...

1) Learning focuses on the development of lifelong learning practices and a sense of self, rather than facts and figures.

Learners have a well-rounded base of knowledge and a core set of skills, while establishing a depth of expertise in areas of interest that are framed by fundamental habits of mind:
- an intrinsic motivation to learn and explore
- an awareness of individual, local, and global contexts
- a recognition that failure is an essential part of progress
- an awareness of the limits of one's knowledge and the possibility of being wrong
- a curiosity about the world and the way it works
- an ability to recognize inequity and imbalance in systems
- an empowerment and drive to translate knowledge and passion into meaningful action.

2) Students learn through cross-disciplinary and often collaborative projects.

These projects allow students to build a balance between doing and knowing while examining particular areas of knowledge with depth and rigor. Since students' interest in the subject will make a big difference to their motivation, they select their own subjects for these in-depth projects, with guidance from their teachers.

Students are most engaged when their studies are relevant. Therefore, learners actively seek partnerships with industry, civic organizations, media, and other local groups so that their learning activities are directly related to the needs of their society.

3) Students connect with each other in fluid groupings that are dictated by their needs at any given moment.

Often, these groups may combine students of different ages, different levels of attainment, and different interests. These groups may seek guidance from several different teachers and other advisors as facilitators and subject-matter guides.

4) Teachers and other learning professionals serve as guides or curators of learning.

These learning partners help students select topics for in-depth learning, define their goals, and find and evaluate information. They also help connect students with experts outside the school and facilitate discussions among students, experts, and others. Teachers' in-depth knowledge of, and passion for, their subject area are central to their role, but a broader passion for their own lifelong learning and helping others learn is also essential.

Teachers play a second crucial role in learning: that of a caring, interested mentor and role model. Each student meets regularly with a teacher/mentor to discuss the student's goals and the educational trajectory that is most likely to achieve them, and to monitor the student's progress.

5) Learning progress is measured through qualitative assessment of a student's skills and competencies that document the learner's entire experience, rather than measuring a discrete outcome.

These assessments are determined collaboratively by the learner and others such as teachers, peers, parents, and sometimes mentors outside the school. Personalized assessments are a regular, even daily, part of students' learning process, though particular attention may focus on milestones such as completion of a major project. As a result, students know at all times what their strengths are, where they have room for improvement, and how they are addressing their progress. This process takes the place of conventional examinations and grades.

6) Decisions that affect the learning environment are made by stakeholder groups comprised of learners, teachers, governments, and parents, with learners and teachers playing a central role in decision-making.

Within that framework, each school has the autonomy to decide the method it will use to pursue the learning goals set out by the stakeholders.

7) Schools empower both students and teachers, encouraging them to experiment with new ideas and fail safely, so that they develop the confidence to take risks.

This includes the creative use of whatever technologies are available. Available technologies are explored in a culture that embraces experimentation and allows failure to be used as an opportunity for improvement.

Teachers pursue their own research on instructional techniques, both to advance their own knowledge and to set an example of risk-taking and persistence for students to emulate. Teachers seek rapid feedback about whether innovations are working. This results in a dynamic, evolving learning system capable of adapting to different social conditions and to continued technological change.

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Conclusion

We are convinced that moving toward this vision of learning in 2030 will help to shape a world filled with creative, confident, adaptable young leaders capable of addressing the challenges of a complex and fast-changing society. Exemplar schools already in place testify that this need not cost more than today's educational system – and society will reap immense benefits.

We could make no smarter investment, and the time to invest is now.

Founded in 2009, Waterloo Global Science Initiative (WGSI) is a non-profit partnership between Perimeter Institute for Theoretical Physics and the University of Waterloo, a pairing that has previously resulted in the distinguished Perimeter Scholars International program and the University of Waterloo's pioneering Institute for Quantum Computing. The mandate of WGSI is to promote dialogue around complex global issues and to catalyze the long-range thinking necessary to advance ideas, opportunities and strategies for a secure and sustainable future through the Equinox Summit Series, Equinox Blueprints and Impact Activities.

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