



# **Overview**

Change is happening all around us. We can wait and see how those changes shape education, or we can steward these changes creatively and responsibly through proactive exploration of the future of learning.

Considering a range of possibilities can help us pave the way for future education systems that are equitable and learner-centered. Focusing only on how learning happens today limits the scope of our imaginations and risks keeping the next generation of learners stuck in education systems that already struggle to keep pace with people's needs. Education constituents need to take a long view to make sure that the future of learning meets today's hopes of helping students of all races and ethnicities, incomes and identities pursue the kinds of learning experiences that enable them to uncover their passions and thrive in an evolving world.

This publication looks ahead approximately 10 years to examine future possibilities raised by KnowledgeWorks' recent explorations of the future of learning. It provides a digest of these possibilities in five key areas that shape how education operates today and will determine what unfolds for education systems and learners in the future.

Readers can use this publication to get a quick sense of the changes that KnowledgeWorks' futurists have been watching for the past three years and the possibilities that they present. Following these possibilities, a set of strategic considerations highlights key issues to watch as we all work to realize a future of learning in which each person can thrive. To find more on trends, evidence of change and specific implications, refer to the sources for this publication.

# A Digest of Future Possibilities

The five key areas addressed in this publication include:

#### **Curricula and Classroom Practices**

What is taught in learning environments — and how

### **Assessment and Credentialing**

How learning is measured and validated

### Staffing and Supports

What roles and structures support learners and educators

### Technology and Learning

How technology is used in education systems

### **Governance and Decision-Making**

What approaches inform priorities for education

While many areas of the educational system play an integral role in learning, these areas were selected due to their prominence in KnowledgeWorks' recent publications. For each area, this digest presents a brief description, a snapshot of the trajectories of change that KnowledgeWorks has observed and specific future possibilities that could emerge.

As you explore this digest of future possibilities, consider:

- » What possibilities feel like ones that you might want to create?
- » Which ones raise risks that you might wish to mitigate?
- » What are your ideas about future possibilities for learning?

# Curricula and Classroom Practices

The area of curricula and classroom practices encompasses what is taught and how instruction is delivered in educational settings.

### **Trajectories of Change**

KnowledgeWorks' recent publications identified several major trajectories of change that could shape the future of curricula and classroom practices, including:

- Increasing desire for relevant learning is leading to curricular adaptations to meet the demands of the 21st century while preparing students for active citizenship and to be changemakers
- » Increasing interest in and adoption of communitycentric education models is promoting sociallyoriented learning experiences and fostering strong connections between schools and surrounding communities
- » Shifts toward flexible, culturally responsive education are increasing opportunities for personalized, interdisciplinary learning experiences and diverse forms of teaching

# **Future Possibilities**

These trajectories of change, as well as countless others, help create more specific images of possible futures for curricula and classroom practices, as detailed below.

- » Neighbors, local schools and other public institutions, such as libraries and housing and transportation agencies, partnered to co-create culturally relevant learning experiences? Imagining Liberatory Education Futures
- » Civics education included knowledge of the digital tools used in modern-day advocacy, along with an understanding of cause and effect and how things are interrelated? Dreaming into Learning Futures
- » Project-based learning integrated community organizing and processes for healthy conflict, serving as a model for other approaches to learning? Mapping Your Journey into Liberatory Education Futures
- » Curriculum and instruction centered the development of essential knowledge and transferable skills, with assessments validating mastery when students were ready? Beyond the Horizon: Blazing a Trail Toward Learner-Centered School Quality Systems
- » Educators used trauma-informed approaches and understood neurodiversity so that they could offer learners a variety of opportunities to learn skills and information? Mapping Your Journey into Liberatory Education Futures

# Assessment and Credentialing

The area of assessment and credentialing encompasses how learning is measured and the processes by which learning is validated.

# **Trajectories of Change**

KnowledgeWorks' recent publications identified several major trajectories of change that could shape the future of assessment and credentialing, including:

- » Advancements in technology are expanding how, when and where assessments happen and are enabling new forms of credentialing
- » Diversifying approaches to education and debates about its purpose are expanding consideration of what might be assessed and how assessment systems might be designed
- » Increasing frustration with current accountability systems as barriers to vibrant learning experiences is leading more and more people to seek better approaches to ensuring school quality

# **Future Possibilities**

These trajectories of change, as well as countless others, help create more specific images of possible futures for assessment and credentialing, as detailed below.

- » Public schools expanded their knowledge frameworks and ways of teaching, with new measures of learning success and quality assurance mechanisms supporting those approaches? **Imagining Liberatory Education Futures**
- » Education de-prioritized worksheets and multiple-choice tests and systemically integrated creative expression and digital production as legitimate forms of student assessment to help them prepare for a creative, knowledge-based and fluid economy? **Dreaming into Learning Futures**
- » Young people could earn credits through out-of-school experiences that were credentialed through the blockchain? Dreaming into Learning Futures
- » Learning communities found ways to embrace customizable artificial intelligence (AI) as a tool to expand asset-based formative assessment, linking relevant community-based learning to 22nd century outcomes and expanding educational opportunities for Black and LatinX learners? Futures of Assessment
- » Education focused on developing students' agency for life in the classroom and beyond -and established highly personalized assessment systems? Beyond the Horizon: Blazing a Trail Toward Learner-Centered School Quality Systems

# Staffing and Supports

The area of staffing and supports encompasses the types of roles that might be seen in different futures of learning and the ways in which supports for the people holding those roles, as well as supports for learners, might develop.

# **Trajectories of Change**

KnowledgeWorks' recent publications identified several major trajectories of change that could shape the future of staffing and supports, including:

- » Increasing interest in providing learner supports that address factors beyond academics is leading people to connect peers as mentors in new ways
- » New ways of organizing learning, such as learning ecosystems, are activating new educator roles and surfacing new skills and competencies that are needed to serve learners
- » Continuing struggles with educator recruitment and retention are broadening who is considered an educator and are leading people to consider using AI when access to human teachers is scarce

### **Future Possibilities**

These trajectories of change, as well as countless others, help create more specific images of possible futures for staffing and supports, as detailed below.

- » Schools had directors of belonging who focused on ensuring the emotional safety of learners and staff and cultivating a sense of belonging?
  Drogming into Learning Futures
  - Dreaming into Learning Futures
- » Schools had learning spark facilitators who co-designed equitable learning journeys for every young person in collaboration with them and other educators? Envisioning Educator Roles for Transformation
- » Youth led their and their peers' learning journeys and adults played supporting roles? Mapping Your Journey into Liberatory Education Futures
- » Learners had technological companions that helped them track progress on skill development, supported them in completing assignments and engaged them in basic reflection on their learning? Futures Affecting Math Education: Widening the Lens on Change
- » Self-organized groups of learners, educators and advocates created anti-oppressive learning experiences, collaborating with schools or school districts at times but largely collaborating with one another? Imagining Liberatory Education Futures

# **Technology** and Learning

The area of technology and learning encompasses the intersection between the evolving needs of learners, educators and education systems and continuing advances in technologies such as Al, the blockchain and extended reality.

# **Trajectories of Change**

KnowledgeWorks' recent publications identified several major trajectories of change that could shape the future of technology and learning, including:

- » The rapid pace of development in transformative technologies such as AI is engendering significant excitement and uneasiness about what values they will reflect and what human behaviors they will impact and enable
- » Increasing interest in pursuing learner-centered education that is equitable, engaging and relevant is inviting consideration of new approaches to using technology in education
- » The ongoing development of Al and other technologies is enabling the automation of tasks in many settings

### **Future Possibilities**

These trajectories of change, as well as countless others, help create more specific images of possible futures for technology and learning, as detailed below.

- » Customizable AI enabled teachers to design ways of bridging the gaps between local approaches for supporting learners and accountability frameworks designed at the state and national levels? Futures of Assessment
- » Development principles for educational technology shifted to promote education that promoted relationships, agency and creative thinking? Futures Affecting Math Education: Widening the Lens on Change
- » Technology enabled math learning journeys to be highly adaptive to students' needs and aptitudes without prioritizing support for learners in developing their identities, interests or agency within math? Futures Affecting Math Education: Widening the Lens on Change
- » A digital personalized wayfinding life coach and companion powered by machine learning helped young people learn how to learn by cultivating curiosity and information processing skills and habits? Connections to the Future: Illustrating Liberatory Education Artifacts
- » A director/advisor of artificial intelligence provided necessary guidance and support to educators across their district to integrate All agents and tools in their daily practices efficiently and ethically? Envisioning Educator Roles for Transformation

# Governance and Decision-Making

The area of governance and decisionmaking encompasses the structures and processes that guide priorities for various types of learning communities and institutions.

# **Trajectories of Change**

KnowledgeWorks' recent publications identified several major trajectories of change that could shape the future of governance and decision-making, including:

- » Broadening access to communication channels through digital technologies is increasing opportunities for community members to participate in educational governance and decision-making
- » Increasing attention to agency for young people is forging new ways for them to engage in governance and decision-making processes
- » Increasing interest in and movement toward codesign is prioritizing the involvement of a diverse array of constituents as partners in problem-solving and innovating in public education

### **Future Possibilities**

These trajectories of change, as well as countless others, help create more specific images of possible futures for governance and decisionmaking, as detailed below.

- » Every school in the U.S. were required to have at least one voting student school board representative, and that representative had veto power over the decisions made by school boards? Dreaming into Learning Futures
- » Youth leaders from minoritized communities (Black, Indigenous, people of color, LGBTQ+ and/or disabled) cultivated innovation in the design of learning priorities and experiences, helping to set social norms by modeling cross-cultural and racial literacies with peers and community members?
  Imagining Liberatory Education Futures
- » Inclusive decision-making bodies involving local school leaders, parents, students and government entities supported the co-creation of approaches to education that met learners' diverse needs and aspirations? Imagining Liberatory Education Futures
- » A high level of uncertainty around the shape of the emerging economy gave the employment sector increased influence over education? Beyond the Horizon: Blazing a Trail toward Learner-Centered School Quality Systems
- » Learning communities designed local equity roadmaps that outlined specific goals, values and assumptions that they had committed to pursuing, as well as the roadblocks that they must address to increase their education systems' responsiveness to every learner? Envisioning Educator Roles for Transformation

# **Strategic Considerations**

Responding to today's complex and rapidly changing landscape is not an easy task. Education leaders and constituents can use the strategic considerations below to recognize opportunities and challenges as they work toward their preferred futures of learning.

# Navigating a Diversifying Education Landscape

Over the next decade, fresh approaches to teaching and learning are likely to continue to proliferate. For example, approaches such as personalized, culturally responsive and relevant learning could become more common and more accessible. More young people could have agency in determining what, how and when they learn, and educators could have more choice about how they contribute to education. Despite these and other benefits, the widening array of approaches could complicate efforts to support learners and understand educational outcomes, especially since today's assessment and accountability systems over-rely on standardized tests and fail to illuminate what did or did not support young people's learning. Moreover, it could also complicate educator preparation and professional development.

- » What approaches to assessment might suit the diversifying education landscape and support individual learning and growth?
- » What ways of understanding educational outcomes could provide useful information and help educators pursue equity?
- » What supports might in-service and pre-service educators need to navigate an expanding educational landscape effectively?

# Fostering Change in Systems That Resist It

Though education innovation is widespread, education systems have long demonstrated their resistance to change, with their fundamental structures having remained relatively stable across generations. Over the next decade, education changemakers will continue to grapple with education systems' tendency to reverberate to the status quo. In addition, the current systemic structures surrounding schools and school districts, including funding structures and state accountability systems, will likely limit their efforts. More and more people could become impatient with the slow pace of change and unrealized promises of efforts to reform public education systems and exit them, leading to a downward spiral of declining enrollment and tightening operational constraints.

- » How might educators and others who value public education systems continue demonstrating and communicating their value?
- » How might schools and school districts seed sustainable, longterm education systems transformation by involving educators, learners, families and caregivers and other community members in shaping new approaches to education that meet their needs?
- » What advocacy efforts could help foster reasoned and careful adjustments to school funding structures, state accountability systems and other systemic structures in service of long-term aims?



### **Balancing Broad Involvement in Education**

It seems likely that a wide range of political, philanthropic and community organizations with countless motivations could aim to influence what happens in schools and other learning environments over the next decade. Young people and/or their families could end up having more say over what happens in learning environments. In addition, educational opportunities could extend further beyond the walls of school campuses and increasingly involve business and community spaces and contributors. This type of broad constituent involvement could strain current educational governance and decision-making structures that were not designed to manage it. The need to balance varied interests and power dynamics while navigating polarizing issues and an expanding array of educational opportunities could hinder efforts to ensure that learners' needs and priorities come first.

- » What new, more inclusive educational governance systems and decision-making processes could incorporate a wide range of actors and voices?
- » How might schools and districts balance the costs and benefits of involving more people in shaping how they operate and what they aim to achieve?
- » How might educators find effective ways forward when people disagree about what education aims to achieve and who or what lies at its center?

### **Preventing Technological Glitches**

Al and other technologies will continue to develop, creating new ways of enhancing learning. Especially in light of Al's growing accessibility for consumers and the surrounding hype, its potential to spur education systems transformation will be easy to oversell. It and other technologies are more likely to help people achieve greater efficiencies or boost engagement within the parameters of existing education systems. As societal regrets about the impacts of social media demonstrate, technologies can also cause harm. For example, they can undermine human connection instead of fostering it. They can also create efficiencies at the expense of learners' and educators' agency. Over the next decade, education constituents will need to examine applications of AI and other technologies with both deliberation and curiosity.

- » How might education constituents learn from the damage caused by social media to approach the use of Al and other technologies differently?
- » How might educators and others articulate guiding principles for the application of AI and other technologies and then scrutinize technology tools and providers against them?
- » In what ways might AI and other technologies enable education systems transformation?

# Stewarding the Future of Learning

The future possibilities highlighted in this publication may or may not come to pass. If they happen, they might manifest only partially or not exactly as described.

Those that do happen will not look the same in every education system or for every learner. As we seek to steward the changes shaping education creatively and responsibly, we can use these possibilities and the related strategic considerations to spark our imaginations about what we might wish to create. We can also use them to bring attention to what risks we might want to mitigate and to inspire further thinking about what else might be on the horizon for learning.

Engaging with this far horizon can help us realize today's hopes of making education equitable and learner-centered. In an increasingly complex and rapidly changing world, grappling with future opportunities and risks while practicing informed imagination can help education constituents pursue effective strategies. It can help us steward the future of learning toward being one in which each learner and educator can thrive.



# **Sources for This Publication**

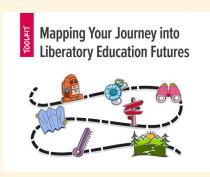
These publications provide additional perspectives and details on possible futures in education.



**Imagining Liberatory Education Futures** (2022)



Dreaming into Learning Futures (2022)



**Mapping Your Journey** into Liberatory Education (2023)



Connections to the Future: Illustrating Liberatory Education Artifacts (2023)



Beyond the Horizon: Blazing a Trail Toward Learner-Centered School Quality Systems (2023)



Futures Affecting Math Education: Widening the Lens on Change (2024)



**Envisioning Educator Roles** for Transformation (2024)



**Futures of Assessment** (2025)

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KnowledgeWorks is a national nonprofit organization advancing a future of learning that ensures each student graduates ready for what's next. For more than 25 years, we've been partnering with states, communities and leaders across the country to imagine, build and sustain vibrant learning communities. Through evidence-based practices and a commitment to equitable outcomes, we're creating the future of learning, together. **KnowledgeWorks.org** 

