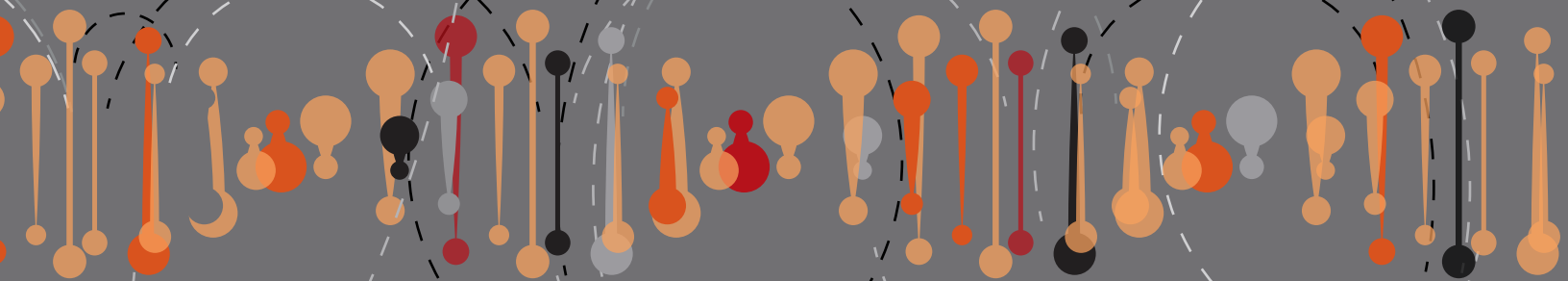# Forecasting the Future of
K-12 Teaching:
Four Scenarios for a
Decade of Disruption

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KnowledgeWorks.

The future
is not a
fixed
point.

It is ours to create.

Forecasting the Future of K-12 Teaching: Four Scenarios for a Decade of Disruption

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We know that good teaching is crucial to students' success. There is also growing recognition that today's education system is facing a crisis point as it continues to operate largely according to an industrial-era design that no longer reflects societal or economic needs. Already too many students fall through the cracks despite the best intentions and efforts of many well trained and hardworking professionals. As we move toward a performance economy in which career paths are becoming less linear, full-time employment is on the decline, and many of today's kindergartners could find themselves creating their own jobs, all students will need new skills that can be difficult to fathom today.

As the education system has struggled to adapt, teachers have come under increasing scrutiny. While good teachers make a difference in students' lives every day, even the best teachers cannot turn the tide when the fundamental design of the education system is at odds with the climate in which it operates and with the world for which it aims to prepare young people. Of course teachers want to understand how they contribute to student learning. Of course society needs to understand where its investments in education are having the intended impact. But the crisis point that the education system faces is not one of teacher or school performance. It is one of system design.

As forecast in KnowledgeWorks' _Recombinant Education: Regenerating the Learning Ecosystem_ and the related **infographic**, "A Glimpse into the Future of Learning," education in the United States is facing a decade of deep disruption as the digital revolution and the cultural and social changes that have accompanied it challenge the sector's fundamental structure. As we have already seen with other knowledge-based industries such as journalism and publishing, education is going through a period of disintermediation, wherein our relationships with traditional institutions are changing dramatically and, in some cases, ending. We are moving toward a diverse learning ecosystem in which learners and their families will be able to customize their learning journeys to an unprecedented extent, creating learning playlists that reflect their needs, interests, and values. Whatever the path, the trends shaping the future of learning suggest that radical personalization could become the norm as we develop ever-deeper understanding of cognition and motivation and have more tools at our disposal to understand what is happening with learners and to tailor instruction and supports to meet their needs.

At a time when such trends forecast dramatic changes to the fundamental structures of education, it is important, given the crucial role that teachers play in young people's lives, to be intentional about how we design for adults' roles in supporting learning. What might teaching look like in ten years? How might choices that we make about teaching today affect not just teachers' experiences of their profession but also the very design of learning itself and, most importantly, the extent to which we are able to support all learners in achieving their fullest potential?

...the crisis point that the education system faces is not one of teacher or school performance. **It is one of system design.**

Exploring Plausible Futures

To help education stakeholders around the country explore such questions, this paper presents four scenarios for the future of K-12 teaching in the United States:

- A baseline future, "**A Plastic Profession**," that extrapolates from today's dominant reality to project what teaching is likely to look like in ten years if we do not alleviate current stressors on the profession and do not make significant changes to the structure of today's public education system.

- An alternative future, "**Take Back the Classroom**," that explores what teaching might look like if public educators reclaim the learning agenda by helping to shape the regulatory climate to support their visions for teaching and learning.

- A second alternative future, "**A Supplemental Profession**," which examines what teaching might look like if today's public education system does not change significantly but professionals from other organizational contexts become increasingly involved in supporting young people in engaging in authentic and relevant learning opportunities outside of school.

- An ideal future, "**Diverse Learning Agent Roles**," that explores how a diverse set of learning agent roles and activities might support rich, relevant, and authentic learning in an expanded and highly personalized learning ecosystem that is vibrant for all learners.

Each of these scenarios represents a plausible future for K-12 teaching reflecting different drivers of change that are at play in the world today. While some of those drivers of change might seem positive and others negative, each of them reflects a current trend. Scenarios help us explore the future by looking at what might come to pass depending on how those current trends evolve and what actions people take to influence them. When we emphasize one set of key drivers versus another, thereby changing our fundamental assumptions, we get very different narratives about how the future might look. Depending on how and the degree to which the key drivers used here play out, each of these scenarios might become more or less likely. Even today, any one of them might not be equally likely in all places.

While it is unlikely that the future of K-12 teaching will unfold exactly as articulated in any of these scenarios, engaging with them can help us surface key issues facing the profession today, develop visions for what we would like teaching to look like in ten or more years, and create strategies for pursuing those visions while at the same time mitigating against less positive outcomes. As you read these scenarios, be looking for possibilities that excite you. For ideas that seem impossible given how today's system works. For projections that concern or disturb you.

Being attentive to your responses will help you examine your own assumptions and identify your preferred future. Your preferred future does not have to match any of these scenarios; it might contain elements of several or all of them or reflect a different set of key drivers. Nor does your preferred future need to be the one that I consider, based on my understanding of future trends and my own values and assumptions, to be ideal.

The important thing is to engage in strategic foresight – to step out of today's reality long and far enough to plan for how you and your organization might make best use of future trends and to prepare for how you will meet your objectives and support learners no matter what the future of K-12 teaching ends up looking like. As you consider these four plausible futures as a way of illuminating a path toward action today, the broader invitation is to become an active agent of change in creating the future that you think would best serve learners.

Become an **active agent of change** in creating the future.

A Plastic Profession

As the federal accountability system continues to emphasize narrow measures of student and teacher performance and districts face daunting fiscal challenges, many public school teachers find their creativity increasingly constrained.

As educator evaluation systems aligned with student performance mature, many teachers remain uncertain about the impact of these systems on their profession. Furthermore, the now long-established "new normal" of constrained government resources, combined with public distrust of educators, limits districts' scope for innovation. With reauthorization of the nation's major K-12 education law long overdue, state legislatures and special interest groups work actively to change the K-12 education system at the state level. This combination of heightened political activity and shrinking education budgets causes distraction for many teachers, making it challenging to set compelling visions for the future of learning.

Without strong visions for the future of learning, public will for change remains limited even as anxiety over whether the U.S. will be able to educate a future-ready workforce reaches new heights. Schools and districts continue to pursue limited school reform – including limited differentiation of teaching roles – in the context of the existing educational paradigm. Likewise, teacher preparation programs make minor changes in an attempt to improve their programs and attract more candidates. However, nothing makes a significant impact on learning or on teachers' job satisfaction as the fundamental design of the education system remains unchanged. Some new learning platforms emerge, offering learners new options, but they remain largely self-organized and on the fringes and do not yet offer full-time educators remunerative career pathways. Many learners who see and have the means to exercise better options – in their local communities, via distance learning platforms, or from a mix of sources – exit the public education system, especially in those places where the system has long struggled to turn around low-performing schools.

Similarly, many teachers leave not just the public education system but the field of learning in order to pursue more lucrative and satisfying careers. Those who remain feel increasingly disenfranchised. Just as students in the system are treated largely as cogs moving lockstep through an industrial machine, many teachers begin to feel as if they have become production line supervisors.

Alternative Future 1

Take Back the Classroom

With support from visionary district and school administrators, public school teachers organize to reclaim the learning agenda by helping to shape the regulatory climate to support their visions for teaching and learning.

As continuing inability to reach political agreement on reauthorization of the nation's major K-12 education law deepens the disconnect between policy and the classroom, and as state legislators continue to debate highly-charged education issues, public educators come together to provide more coordinated direction about how states should steer and fund education. They also expand networks and platforms for establishing and pursuing new visions for education. Yet even as they start to set greater direction for the learning agenda, public educators also increasingly find ways to sidestep the regulatory system so that they technically comply but do not concede too much time or attention to its demands.

Such movements and actions, both generative and defensive, develop and coalesce enough that public school teachers develop new independence from the regulatory system and find new space to focus on learning. In so doing, they reclaim key dimensions of the learning agenda, including curriculum and assessment. Teachers experiment with multiple pathways toward designing meaningful learning experiences for young people. Rather than purchasing pre-made curricula, schools and districts increasingly provide time and resources for teachers to collaborate in designing curricula that reflect their deep knowledge of how students learn and allow for customization to local conditions. Teachers also seek ways to use authentic assessments to inform learning rather than to pursue compliance.

With this renewed focus on learning, teachers take back their power as expert craftspeople. They find channels for raising their collective voice against policies that have less to do with supporting learning than with policing the system. As teachers increasingly come into their power as professionals, legislators and other education stakeholders – including educator preparation and development programs – take notice and work to support teachers' new visions for teaching and learning, shifting the broader educational climate slightly.

Key Drivers

- Dominance of state education agencies by political appointees
- Increasing frustration among educators
- Increasing coordination among educators to influence state visions for learning and to adhere to talking points with legislators
- Continuing focus on narrow measures of accountability within the formal education system
- Early experimentation with hybrid roles for teachers
- Emergence of an education commons as evidenced by the open education movement and the rise of blockbuster-quality content
- Rise of personalized learning models, such as competency education
- Increasing recognition that the role of education and teaching must change in a knowledge-abundant society

Signals of Change

The **Center for Teaching Quality** has been exploring hybrid roles for teachers in hopes of creating a new model for teachers who want to develop their careers to stay in the classroom part-time while also being trained and paid as change agents – what they call "teacherpreneurs."

Teach Plus works to keep high-performing teachers in the classroom with high-need students by encouraging teachers in the second stage of their careers to continue teaching while also influencing policy and assuming greater leadership in the form of teacher turnaround teams .

In 2013, teachers at Seattle's Garfield High **voted unanimously** to boycott the January-February administration of the Measures of Academic Progress (MAP) test, sparking a nationwide "Education Spring" revolt against the amount of school time spent administering and teaching to tests, the evaluation of teachers and schools based on narrow measures of student achievement, and teachers' limited involvement in key decisions about student learning and the use of classroom time.

Alternative Future 2

A Supplemental Profession

As professionals from a variety of organizational contexts begin to organize more ways of supporting young people in engaging in authentic and relevant learning opportunities outside of school, these adults create a new learning agent network that remains largely separate from the teaching taking place in K-12 schools.

With learning experiences proliferating across places and platforms, some through formal institutions and some through virtual and place-based networks, adults whose primary jobs lie outside the formal K-12 education system emerge as a new cadre of learning agents offering learning services and supports. These learning agents serve as facilitators of relatively structured learning experiences designed by their organizations and also as coaches, mentors, and guides of student-driven projects and inquiries.

Some of these adults develop hybrid careers where part of their compensation comes from their involvement in learning experiences. But for many, serving as a learning agent becomes a kind of professional volunteerism, a paying-it-forward dimension of their primary (paid) profession. Whether compensated or not, some of them pursue training in working with young people or supporting learning. However, very few of them acquire any sort of formal teaching credential, as those credentials remain oriented toward the needs of full-time educators rather than those of part-time learning agents.

In some instances, these learning agents collaborate with teachers in the formal K-12 education system; for example, when innovative school designs open the door for traditional classroom teaching to shift toward team collaboration or to morph more profoundly toward student-driven instruction. But in most cases, these learning agents form a supplemental profession that operates largely separate from traditional school systems, both because these learning agents have little incentive to push their way into those settings' regimented, compliance-oriented structures and because those settings' structures continue mainly to be designed around traditional disciplines, grade levels, and teaching roles.

However, as more ways of credentialing informal and community-based learning experiences emerge and gain acceptance, and as an increasing number of students seek to fulfill needs and pursue interests that traditional school systems do not meet or support, these supplemental learning agents attract an increasing percentage of young people, at least for part of their learning journeys. In places with relatively few local resources, learners often look beyond their geographic communities when seeking support from supplemental learning agents.

Key Drivers

- Ongoing proliferation of learning platforms
- Rising rates of homeschooling, unschooling, and other self-organized approaches to learning as people's relationships with institutions change
- Increasing emphasis on personalized learning within the formal education system
- Early exploration of teaching teams involving teachers and other kinds of professionals
- Trend toward bringing more instructors with real-world experience into learning environments
- Increasing support for out-of-school and community-based learning experiences
- Push among museums, libraries, and other cultural institutions to broaden their missions and services as their value propositions change
- Increasing involvement of the business community in preparing workforce-ready students
- Diversification of credentialing, including an increasing emphasis on demonstrating mastery
- Continuing focus on narrow measures of accountability within the formal education system

Signals of Change

National Commission on Teaching & America's Future has been supporting the creation of **STEM Learning Studios** that bring together teams of four to six teachers within the same school to work in interdisciplinary, cross-curricular teams that also involve local scientists and engineers in helping students develop and implement year-long project investigations.

InsideOut Community Arts relies on arts professionals trained in youth development to deliver **The School Project**, its renowned theater, movement, arts, and media-based curriculum, to underserved middle-school students after school on campuses in the Los Angeles Unified School District as well as in the Lawndale, Lennox, and Wiseburn districts.

Modern Guild is a network of industry professionals offering a one-on-one, online mentoring program that helps high school and college students explore and prepare for careers. It involves career coaches, who are career services professionals, along with industry experts employed by top companies who work with students interested in their professions.

Diverse Learning Agent Roles

A diverse set of learning agent roles and activities supports rich, relevant, and authentic learning in multiple settings and helps ensure that all students have access to high-quality personalized learning.

As the learning ecosystem expands and diversifies and the formal K-12 school system no longer dominates the learning landscape, many new learning agent roles emerge to support learning. Some learning agents support students in creating customized learning playlists that reflect their particular interests, goals, and values. Other learning agents help students attain success within their chosen learning experiences. Learning agents operate both inside and outside traditional institutions, collaborating to adapt learning for each child and to support learners in demonstrating mastery. Some learning agent roles resemble the traditional teaching role, while others vary widely.

With "school" taking many more forms, educators trained in the industrial-era school system have redefined their roles to match their strengths, creating more differentiated and satisfying career paths. Professionals working in museums, libraries, art centers, scientific labs, hospitals, and other settings have also recast their roles to reflect their organizations' increasing contributions to learners' playlists, including the playlists of learners in other communities. Some adults contribute to learning in part-time, even micro ways, either as part of diverse career portfolios or through mechanisms such as business-education partnerships.

Sophisticated learning analytic tools help learning agents target learning experiences and supports to match learners' academic performance as well as their social and emotional conditions. In addition, new forms of infrastructure, such as data backpacks that follow the child and flexible funding streams, help learning agents collaborate across learning experiences and organizations where appropriate and help learners and their families manage and access their customized learning playlists.

With so many options for supporting learning, a diverse system of professional branding and validation has emerged to help ensure learning agent quality. Communities also play a vital role in creating vibrant local learning ecologies, in monitoring both learning agents' contributions and learners' success, and in helping learners access resources that are not available locally. Schools that receive public funding place particular emphasis on brokering learning opportunities so that all young people can benefit from the expansion of the learning ecosystem.

Key Drivers

- Ongoing proliferation of learning platforms
- Emergence of more and more forms of "school"
- Increasing emphasis on personalized learning within the formal education system
- Emergence of learning playlists in both formal and informal learning contexts
- Increasing use of learning analytics to tailor learning experiences and inform supports
- Trend toward the de-institutionalization of learning as social production changes how and when people interact with formal organizations
- Beginning exploration of new educator roles to fit new learning models
- Expansion of ad hoc, networked employment and the corresponding decline in full-time employment
- Trend toward community-wide ownership of, and accountability for, learning

Signals of Change

In applying to Kentucky's Board of Education to become a district of innovation, Danville Independent Schools requested **a waiver of traditional job classifications** to allow its teacher funding to be repurposed toward two roles, interdisciplinary learning designers who would develop courses and learning experiences and teaching assistants who would tutor, grade, and supervise during testing. The district also proposed that its guidance counselor funding go toward a new success coach role that would strengthen the connection between school and postsecondary success.

Like other competency-based universities, the leading Western Governors' University has designed new **faculty roles** that correspond with its model of learning. Its program faculties involve academic experts in a variety of roles, including program managers and curriculum developers. In addition, every student has a student mentor who provides coaching, direction, and practical advice throughout his or her course of study. Course mentors support specific sections of the curriculum, while evaluators who have not been involved in delivering or supporting instruction review assessments.

The Los Angeles Public Library recently **partnered** with a private online learning company to begin offering accredited career-based high school diplomas to adults who had dropped out of traditional high schools. Students of its Career Online High School take courses online while meeting at the library for assistance and to interact with other learners.

Creating the Future of Teaching

Each of these scenarios for the future of K-12 teaching in the United States reflects a different system design along with corresponding roles for supporting learning within it. Looking across the scenarios and, in particular, at the details to which you found yourself responding with excitement, skepticism, worry, or fear, which future seems most likely? Which one do you prefer? If your answers to those two questions differ, what does that tell you?

If you were to develop a vision for your preferred future and then identify potential strategies for bringing that future to life, where might you be able to use some of the key drivers included here, or others that you have observed, to create the future of teaching that you think would best serve learners? Are there ways in which each of the scenarios might work well for some learners? If so, which learners would thrive where? Which learners would struggle? Are there aspects of the scenarios that make each of them more or less likely in, or promising for, your community? What strategies might you consider to ensure that every learner has the best possible chance of success – in any given scenario and for whatever future ends up coming to the fore?

While we cannot know today what the future of teaching will look like, there is increasing acceptance that the education system is facing transformative change and that teachers' roles will need to change accordingly. We have the opportunity to think anew about the ways in which teachers function within formal learning environments and about how teachers and adults from other professional backgrounds facilitate learning and support learners in many kinds of educational settings. This time of disruption could create new possibilities for supporting all children in better ways than we are able to do today. It could also create exciting career paths for today's educators and attract new people to the important work of facilitating and supporting learning. I hope that teaching will become an increasingly dynamic and personalized profession.

Strategic Possibilities

To help you grapple with the strategic possibilities illuminated by these scenarios and develop your ideal vision and strategies for enacting it, here are some additional questions for reflection:

- How might we enable multiple high-quality approaches to learning to co-exist within an expanding learning ecosystem?

- How might we enable and support diverse teaching or learning agent roles so that educators have the scope to design the best ways of supporting each particular model of learning?

- What new teaching or learning agent roles would help learners and their families find and access the learning experiences that best suit them?

- What new teaching or learning agent roles might help learners move seamlessly among community-based and school-based learning experiences?

- What new teaching or learning agent roles would help support all learners in attaining their fullest potential?

- How might the structure of teaching need to shift in order to support today's educators in improving outcomes for learners?

- How might the culture of teaching need to shift in order to create new possibilities for learners?

- What supports might administrators need in managing a more diverse array of teaching professionals?

- Where might new kinds of collaborations or partnerships help enable new possibilities for teaching?

- How might we begin to explore new ways of funding learning experiences and learning agent roles in order to enable every child to access the opportunities that best meet his or her needs?

- How might we change today's educator preparation and development systems to create more satisfying career paths for educators and enable new possibilities for learning?

We have the opportunity to **think anew.**

For additional resources related to the future of K-12 teaching and the use of strategic foresight to support organizational planning and inspire systems change, see these materials from KnowledgeWorks:

Our **full forecast** on the future of learning, *Recombinant Education: Regenerating the Learning Ecosystem*

The accompanying **infographic**, "A Glimpse of the Future of Learning," which highlights the emergence of a vibrant learning ecosystem

A set of written personas and accompanying videos describing **five possible learning agent roles**: assessment designer, community intelligence cartographer, eduvator, learning fitness instructor, and learning journey mentor

An **artifact from the future** advertising the services of Knowledge Advisor Associates, a fictional firm helping families navigate an expanded learning ecosystem

"Creating a New World of Learning: A Toolkit for Changemakers," a **practical guide** to using some of our strategic foresight resources to plan for taking action today.

What **future of teaching** do you want to create?

About the Author

Katherine Prince works as Senior Director of Strategic Foresight at KnowledgeWorks, where she leads the organization's work on the future of learning. Since 2007, she has helped a wide range of education stakeholders translate KnowledgeWorks' future forecasts into visions for transforming education and develop strategies for bringing those visions to life. Before joining KnowledgeWorks in 2006, she supported large-scale changes in working practice at The Open University by introducing an online portal and an online student feedback system for 7,500 tutors distributed across the United Kingdom. Katherine holds a BA in English from Ohio Wesleyan University; an MA in English from the University of Iowa; and an MBA from The Open University with emphases on creativity, innovation, and change and on knowledge management.

About KnowledgeWorks

KnowledgeWorks is a social enterprise focused on ensuring that every student experiences meaningful personalized learning that allows him or her to thrive in college, career, and civic life. By offering a portfolio of innovative education approaches and advancing aligned policies, we seek to activate and develop the capacity of communities and educators to build and sustain vibrant learning ecosystems that allow each student to thrive. Since 2005, KnowledgeWorks has produced forecasts and other resources exploring the future of learning and has helped education leaders across the United States plan for the future of learning. To learn more about our strategic foresight work, see **knowledgeworks.org/future-of-learning**.

Acknowledgements