



**THE FUTURE OF LEARNING:
Navigating the Future of Learning**

Resources and Further Reading

In addition to the signals of change highlighted in *Navigating the Future of Learning*, the general resources listed below helped to inform the creation of KnowledgeWorks fifth comprehensive forecast on the future of learning. Links to the examples listed in the drivers of change section of *Navigating the Future of Learning* are also included.

General Resources

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Drivers of Change Citations

AUTOMATING CHOICES

- [Biases in AI](#) have led to some instances of redlining of marginalized populations applying for mortgages and other loans.
- Deep Learning is being used to help [identify and track cancer](#) in patients.
- Emergency service departments, such as the Cincinnati Fire Department, are using analytics and AI to better triage needs and dispatch services to [improve care](#) and [use rescue services](#) more efficiently.
- In what has been coined “[predictive policing](#),” police forces and judicial departments are using data analytics and predictive methods to recommend sentencing and to identify potential perpetrators of future crimes.
- Wealth management firms such as [Wealthfront](#) are using machine learning to trade and rebalance portfolios across a wide range of assets, creating personalized investment portfolios for clients.

CIVIC SUPERPOWERS

- Mobile polling platforms such as [Elucid](#) are providing real-time data and sentiment analysis to give law enforcement and local governments feedback on vital issues related to running a city, such as trust and safety.
- [Magnify Progress](#) uses AI to create personalized information feeds focused on political activism to help users stay informed about, and politically involved with, issues about which they care.
- [ResistBot](#) is software that allows citizens of the United States to identify and contact their Congressional representatives, Senators, and other elected officials in under two minutes. The software translates text and Facebook messages into e-mail, faxes, and physical letters that are sent directly to the officials.

ACCELERATING BRAINS

- Neurostimulation technology is also moving into the do-it-yourself realm, with companies such as [Caputron](#) selling FDA-cleared transdermal cranial stimulation kits.
- Technologies such as [Halo Sport](#) use neuropriming, or the process of using neurostimulation during training to foster stronger connections between the user’s brain and body, to accelerate improvements in physical skills.
- Using electrical pulses to stimulate the vagus nerve to help users relieve stress, improve sleep and enhance attention and focus, [Xana](#) is part of a new wave of wearable technologies intended to provide users with customized neurostimulation for treating a variety of disorders.

TOXIC NARRATIVES

- The [Mastery Transcript Consortium](#) is a network of schools working to create a model for high school assessment, crediting and transcripts to provide a more holistic view of learners, reflecting their unique interests, skills and strengths.
- [The Vitality Health Institute](#) works to strengthen the evidence base on what works and what does not work for public health. The data are used to help change the behaviors of employees at the organizations with which the institute partners, helping them improve their health and well-being.

REMAKING GEOGRAPHIES

- To help communities protect their unique historic character and to promote shared prosperity, [The National Main Street Center](#) partners with local communities and organizations to support community-led revitalization projects.
- [The Project for Public Spaces](#) works to strengthen the connection between people and the places they share by helping people create and sustain public spaces to foster stronger communities.
- Similarly, [Reimagining the Civic Commons](#) is working to revitalize public spaces by using civic assets such as libraries, trails and parks to build community connections.
- Decentralized small scale production networks are emerging across the U.S., with companies such as [UPS](#) and [SAP](#) partnering to create a network of 3D printing sites at UPS store locations to support production needs of industrial designers, entrepreneurs, small scale manufacturers, and rapid prototypers, stimulating local and regional economies.