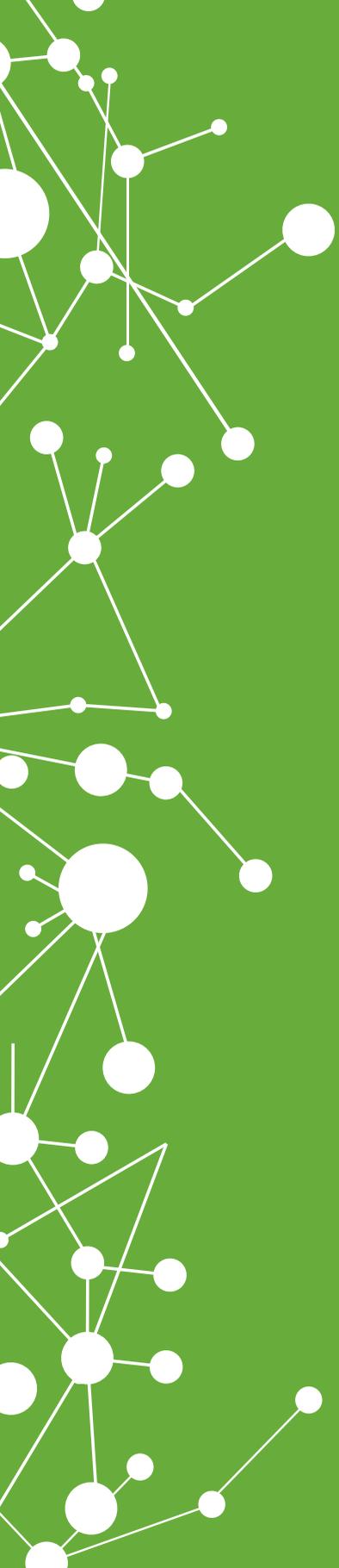


THE NEW LEARNING ECOSYSTEM





The Idea in Brief

As the future of work continues to evolve, more adults will face career transitions that demand the acquisition and demonstration of new skills—creating cycles of learning and earning throughout life. To enable these transitions and better support workers, we need to transform the education-to-employment system. We need a new learning ecosystem that supports individuals at every phase of education and career discovery, funding, learning, training, and working.

At Strada, we believe that a new learning ecosystem centered on learners will support seamless transitions between education and employment throughout Americans' work lives. It will act like a network of highways with off-ramps or brief pauses in work that lead to educational opportunities and on-ramps that guide us right back to work when we're ready. It will have signposts that guide us in our decision making and a GPS to guide us on our journey. It will have plenty of rest stops, where we can access the exact support we need to get back on track. And it will be flexible, adapting to individuals' needs and the needs of employers as our knowledge economy continues to evolve.

Building the new learning ecosystem and realizing its potential will require a coalition of education providers, nonprofits, businesses, and government working together toward this common vision.

“The future is already here—it’s just not evenly distributed yet.”

—William Gibson

The Future of Work Is Here

Look around, and you'll see new industries that didn't exist five years ago creating entirely new jobs like cloud manager, data scientist, and social media specialist. You'll also notice traditional jobs transforming, requiring new skills and new ways of doing business. How we work is shifting, too. There are new ways of participating in the workforce: Remote work, the gig economy, delayed or partial retirement, and "micro-careers" are changing what a work life looks like for many adults. Between new industries, new jobs, new skills, and new ways of working, there is no denying the future of work is already here and evolving quickly.

Despite the rapid changes in work, the pathways to employment through education and hiring have not made as significant or important a leap. Traditional pathways to employment were designed at a time when a degree or certification led directly to a first job, and that first job acted as the foundation for a career with a clear and generally linear path forward. If you chose that path, you could feel confident that success in education would yield long-term employment and promising opportunities.

But today, career paths are much less clear and much less linear. There are fewer guarantees of long-term success from any starting point. The pathways to employment through higher education or vocational training that we've long relied upon are not designed for today's workforce or labor market. They are siloed, opaque, and slow to change in a market that demands connectedness, transparency, and flexibility. The result is a disconnect between education and employment, and more importantly between jobseekers and job opportunities.

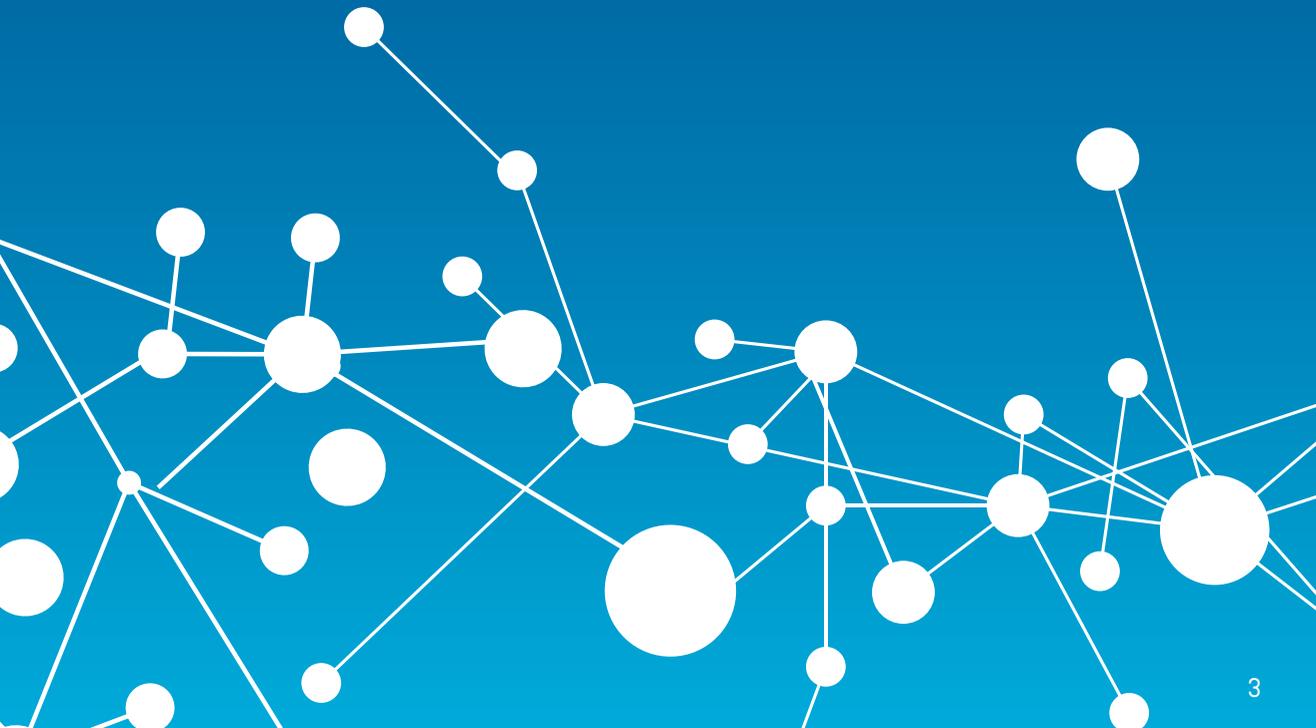


The Gap between Education and Employment

At a macro level, the disconnect between jobseekers and opportunities is evident in current labor market data, which show there are 7 million unfilled jobs¹ in the U.S. and more than 11 million² unemployed and underemployed individuals. Employers seeking to fill those jobs report that they struggle to find skilled labor to meet their needs.³ Individuals seeking job opportunities may not see a clear path to achieving their employment goals, and as a result, they could remain stuck in jobs that do not meet their needs or give up looking altogether.⁴

At a micro level, the disconnect between jobseekers and opportunities is evident in the stories of individuals struggling to make their way in the workforce. There are 44 million working-age adults in America today who have less than a college degree and earn less than a living wage.⁵ These working-class Americans face an outsized risk of being displaced or impacted in their jobs as a result of automation and digitization.⁶ They also have less access to resources to help them navigate the job transitions they will undoubtedly face.

Let us introduce you
to three of them.





Meet Steve, 51 IT Support Specialist

After determining that college was not for him when he was younger, Steve worked a series of odd jobs before he was hired by a company that provided an opportunity to train himself to become an IT support specialist. As the sole breadwinner for his family of five, including his grandchild, Steve has been proud to be a provider. But, at 51, Steve is finding the physical aspects of his job, like crawling under desks and pushing technology carts, to be a strain on his body. He recognizes that it's time to make a career change.

With his family relying on him, Steve believes that he will need to work for at least 15 more years and wants to make sure that he selects a good path—quickly. But Steve doesn't know what that path should look like, where to get started, or how to make it happen. He's open to going back to school, but doesn't know what or where to study. Steve and his family rely on the health insurance that his job provides, and they can't afford to be without it. Steve doesn't know where to turn for advice on how to learn about new careers and weigh the options available to him.



Meet Sarah, 32 Aesthetician

Sarah had no sense of direction when it came to choosing a college or a major. Assuming that getting a college degree was the “right thing” to do, she jumped into a business degree after high school. But without an end goal in mind, Sarah went through multiple cycles of starting and stopping college over the course of a decade before maxing out her student loans. Without seeing an option to fund her degree completion, Sarah decided that cosmetology would guarantee a decent wage if she earned her license.

Now living on public assistance while managing the financial pressures of student loans, Sarah is working as an aesthetician and raising her daughter on her own. Crippled with debt, feeling isolated and alone, and living with a nagging sense of failure and disappointment, Sarah realizes that her current situation is not sustainable. But she doesn’t know what to do next. Is completing her business degree the answer? There is no wiggle room for making the wrong choice again.

Meet Minisha, 44 Childcare Worker

Minisha never pictured herself working for a living. When she was younger, she had a few retail jobs, but married and focused on raising her two children. However, Minisha became a victim of domestic abuse and found herself divorced, homeless, and forced to work to support and protect her family.

Without a particular career outcome in mind, Minisha cycled through various jobs in childcare and at an elementary school. She enrolled in college to earn an early childhood education degree but was unable to complete it due to the demands of working while raising her family. After quitting her job to seek mental health support and move her family into her parents' home, Minisha tried again to return to school. She took a night job at a juvenile detention center so she could work and study at night and then spend the day taking care of her family's needs. Six months

of very little sleep and enormous stress pushed Minisha to leave school again.

Minisha found a new job at Head Start and discovered that she loved supporting families during their hard times. This kindled an interest in social work, and she is now considering potential degrees in the field. But having worked toward a bachelor's degree on and off for the past 14 years, Minisha feels like those last five classes she needs to graduate are out of reach. Minisha has used all student loan funding available to her. She has no idea how she could possibly pay for school—let alone find the time. Without a degree, she fears her annual income won't cover the rising cost of living for her family in Colorado. Is moving to a new town or state a better option? What can she do to get ahead financially in spite of her student loan burdens? She loves her current job, but does she have to leave it?



A New Learning Ecosystem

These three stories show us that existing pathways to employment are not working for everyone. As transitions become more frequent for all adults due to tectonic shifts in the labor market, stories like these will only become more common. More and more adults will face transitions in their careers and question where to turn for help. They will quickly realize that the help they need isn't available. The result is a widening gap between jobseekers and job opportunities—an economic and social gap already manifesting at local, regional, and national levels.

Although there are many innovations in education and employment that seek to close this gap, they generally do so in isolation and with limited scale. With no end in sight for the rapid changes in work ahead, we should anticipate that we will all cycle in and out of learning throughout our work lives. To do that successfully, we need an education-to-employment system designed for adult learners, which recognizes the cycles of learning and earning. We need a new learning ecosystem.

The new learning ecosystem should offer five critical elements of support to learners:

- **Navigating.** People want a road map to show them where they are, where they want to go, and how to make that transition when they're ready. They need to understand their options so they can make informed decisions about the pathways they pursue.
- **Funding.** Learners and workers need funding models that facilitate on- and off-ramps between education and work, including portable benefits, lifelong learning dollars, and transparent funding mechanisms that align funding to outcomes and returns.
- **Precision learning + support.** Learners need precision education and comprehensive support services: tailored, just-in-time, and experiential learning experiences married with human and tech-enabled 360-degree supports that eliminate barriers to learning.
- **Endorsement.** People need validation of their diverse learning experiences—whether book-taught or life-learned—and ways to package those skills so they can effectively and consistently communicate and translate what they can do to prospective employers.
- **Opening doors.** Learners need to find new job opportunities aligned to their skills and experience and be hired based on their capabilities. This gives employers and jobseekers confidence in the fairness and effectiveness of the hiring process.

With this full range of support, learners would have access to the information they need to make informed decisions about their future, plus the resources required to achieve their educational goals and get back to work. Together, these core elements would enable seamless movement in and out of jobs as transitions become more frequent for more adults.

Navigating

Funding

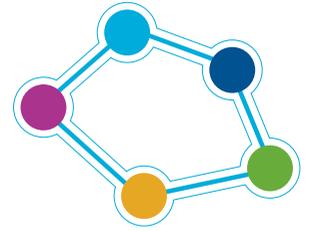
**Opening
doors**

Endorsement

**Precision
learning
+ support**



A Job Transition in the New Learning Ecosystem



The new learning ecosystem doesn't exist yet, but here is a vision for how it could transform the job transition experience for someone like Steve.



Navigating

Once Steve decides he needs to make a career change, he completes a free skills assessment that he learns about through his local public library. Initially, he thought teaching might be a good, steady path given his affinity for working with kids. However, the assessment reveals that Steve has some of the knowledge, skills, and abilities needed to transition into several different careers—a few that he never knew existed or considered as options. Surprisingly, teaching isn't high on the list, but Steve is intrigued by several of the other options, such as Client Services Product Coordinator, IT Project Manager, and Network Systems Analyst.

In addition to learning about his skills, Steve is directed to a website with information on local and virtual training opportunities, and his local job market. Steve knows that a geographic move is not realistic because his family is well-rooted in his community, so he seeks to understand which jobs are in demand locally and what they offer for compensation. This information equips Steve to make a better-informed decision about his transition and next steps.



Funding

With a clearer understanding of his most viable training and employment opportunities, Steve needs to figure out how much this transition will cost and how to pay for it. He accesses information on costs, financial aid, and other financing options for additional education. Steve learns about income-share agreements, financing partnerships between schools and students that allow for repayment of tuition over time and are based on a learner's income. He likes that this option aligns the training provider's interests with his own and that he can pay for his tuition over time with this model.

Equipped with information on cost and funding options, Steve can weigh his options to ensure that his educational endeavor will pay off and doesn't put his family's stability at risk.



Precision Learning and Support

Throughout the process of exploring education paths, Steve connects frequently by phone, chat, and text with a trusted adviser and tech-enabled supports. This support network helps Steve articulate his goals for his transition and decide whether he has the time and resources to take this leap based on the information available on employment opportunities, training, and funding. Having started programs in the past which he never completed, Steve knows that a support network will help keep him accountable in finishing his learning journey. He plans to maintain regular contact with his network through the duration of his program.

With the help of his adviser, Steve finds the right learning experience that aligns with his chosen career path. He is going to pursue a combination of locally available face-to-face training and paid online courses. Together, these learning experiences should prepare Steve for his next opportunity in about 18 months of part-time learning.



Endorsement

Steve's experiences and skills will be presented in a form that employers understand, such as an industry-recognized microcredential. This is key to helping employers trust and understand Steve's past experience as well as his newfound knowledge and skills.

To translate his skills and experiences into a format that can be shared, Steve's training providers, and his prospective employers must have a common understanding of skills and use the same language to describe them. This enables more precise signaling between jobseekers and employers and shifts hiring practices to a focus on skills, not credentials.



Opening Doors

Equipped with his enhanced set of skills, Steve applies for new jobs. His future employer doesn't see a big risk in hiring Steve because there's clear alignment between Steve's knowledge, skills, and the talent needs of the company.

At the same time, Steve feels confident in his path because he selected it with an understanding of the job requirements, salary, and potential for advancement with guidance from his support network. Steve also understands that, before he retires, he may engage in another transition just like this—or two—and when that happens, he can leverage resources across the learning ecosystem to stay ahead and remain relevant in the workforce of the future.

Why an Ecosystem?

The use of the term “ecosystem,” rather than “system,” when describing our vision for the future is deliberate. An ecosystem is defined as “a system, or a group of interconnected elements, formed by the interaction of a community of organisms with their environment.”⁷ This definition calls out three components of an ecosystem: the living organisms, their environment, and their interactions and connections with one another.

Recasting our education-to-employment system as an ecosystem better reflects the necessary interconnectedness of the stakeholders in the system [learners, employers, education providers, governments, and more] with their environments [natural, economic, cultural], and the dynamics of change that result from the stakeholders and environments impacting one another. Ecosystems are complex, connected, living, evolving.

At the foundation of the new learning ecosystem is an essential infrastructure for sharing data. This foundation will be like a root system in a natural ecosystem, allowing for continuous sharing of data between the organisms in the ecosystem and their environment. In the new learning ecosystem, we must have a common language, shared or interoperable technologies, and critical agreements between stakeholders about what data to share and how it can be used. Just like roots, this system will be hard to see from the surface but will be critical to the overall health and functioning of the ecosystem. By connecting all stakeholders and sharing data between them, each individual and organization will be better informed, and the ecosystem as a whole will be more effective.



Creating an Ecosystem by Transforming a System

The current disconnect between jobseekers and opportunities did not emerge overnight. It is the product of a long evolution of work that has resulted from a combination of new technologies, competitive pressures, policy shifts, and changing employer and jobseeker mindsets, contrasted with the limited evolution of the way we train and hire the workforce. This disconnect will not be mended overnight or by a single organization. It will require systems thinking and action to drive systems change.

Systems change has many definitions. Social Innovation Generation defines it broadly as “shifting the conditions that are holding the problem in place.”⁸ To do that in our education-to-employment system, we’ll first need to understand the conditions that are holding the problem in place.

FSG’s model of the six conditions of systems change⁹ offers a helpful starting point. The framework highlights that there

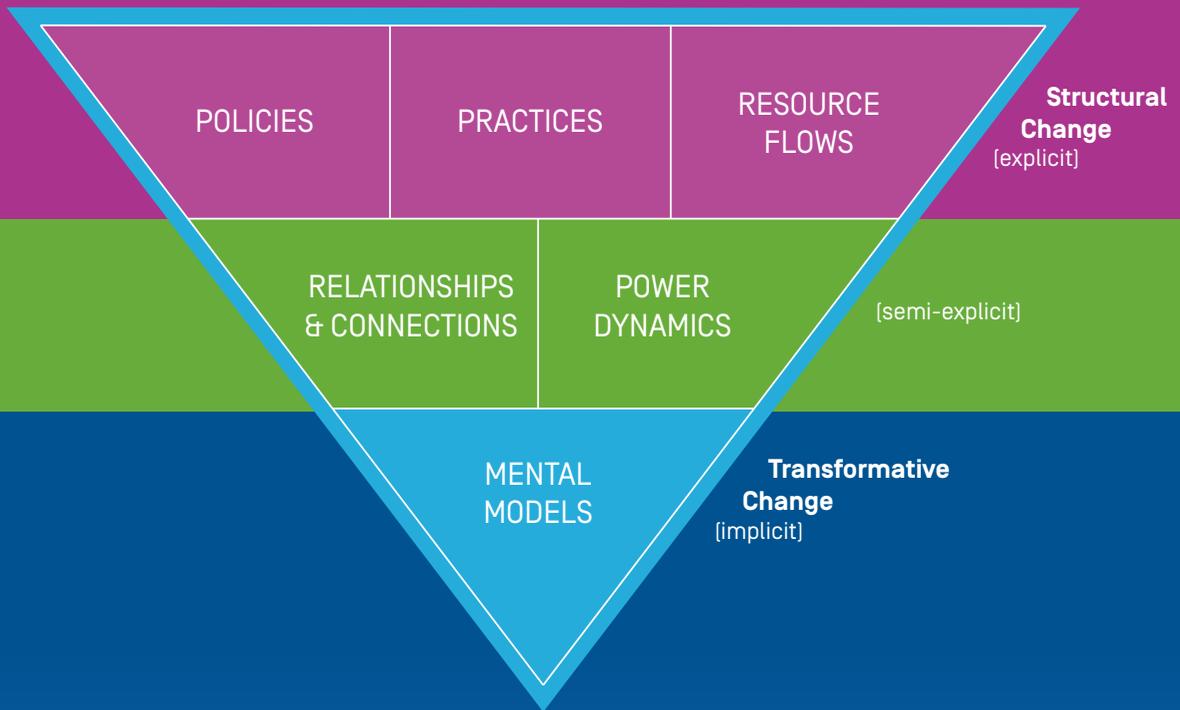
are different types of interconnected conditions—structural, semi-explicit, and transformative—that keep a problem in place. Most philanthropic efforts target conditions at the structural level, which are generally the easiest to identify and affect. Changes at this level can be powerful and have observable and measurable results, but they may not produce sustainable change without accompanying change at the other levels.

**Systems
change
has many
definitions.**

Our work creating the new learning ecosystem will require change at all three levels. It will require stakeholders from across the education-to-employment system to work together, or at least in alignment, to organize around a common goal, identify the levers of change to push and pull to work toward that goal, and share what they are learning along the way. It will be intentional and long-term work that aims to close the gap between jobseekers and opportunities and keep it closed.



Six Conditions of Systems Change



Source: Kania et al., *The Water of Systems Change*, 2018.

It's Time to Get to Work

We are driving a shift from:

opaque to transparent

biased to equitable

disconnected to seamless

siloes to integrated

risk-averse to data-informed

Discussion of the “future of work” may give a false sense of security today by suggesting that we have time to prepare for that future. The reality is that the future is here. There is urgency to change the way that we educate, hire, work, and support one another for all workers to have a chance to succeed in the future.

Lasting change must be structural and relational before it can be transformative. It involves changing hearts and minds—not only of those who run the systems, but also of those who have sat out or stopped out of the current system. This is hard work. Slow work. Often painful work. But it's work worth doing.

At Strada, we recognize that we cannot do it alone. We must work to build a coalition of willing partners across education, nonprofits, business, and government. We're just getting started.

Join us.

Authors

Written by the team at Strada Institute for the Future of Work

www.stradainstitute.org

Endnotes

1 Bureau of Labor Statistics, *Job Openings and Labor Turnover Summary*, 2019.

<https://www.bls.gov/news.release/jolts.nr0.htm>

2 Includes individuals who are unemployed, employed part-time for economic reasons, and marginally attached to the labor force as defined by the Bureau of Labor Statistics. Strada Institute for the Future of Work analysis of data from the Bureau of Labor Statistics, *Current Employment Statistics*, 2019.

<https://www.bls.gov/ces/>

3 Society for Human Resource Management, *The Global Skills Shortage*, 2019.

<https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/SHRM%20skills%20Gap%202019.pdf>

4 In September 2019, 1.3 million people were marginally attached to the labor force, meaning that they are not in the labor force, though they wanted to and were available for work and had looked for a job in the previous 12 months. Of those, 321,000 are discouraged workers, who are not looking for a job because they believe there are no jobs for them. Bureau of Labor Statistics, *Current Employment Statistics*, 2019.

<https://www.bls.gov/ces/>

5 Weise et al., *On-ramps to Good Jobs: Fueling Innovation for the Learning Ecosystem of the Future*, 2019.

<https://www.stradaeducation.org/report/on-ramps-to-good-jobs/>

6 Muro, Mark, Robert Maxim, and Jacob Whiton, *Automation and Artificial Intelligence*, Brookings Institution, 2019.

<https://www.brookings.edu/research/automation-and-artificial-intelligence-how-machines-affect-people-and-places/>

7 Dictionary.com, October 2019.

8 Social Innovation Generation, quoted in Kania et al., *The Water of Systems Change*, 2018.

https://www.fsg.org/publications/water_of_systems_change

9 Kania et al., *The Water of Systems Change*, 2018.

https://www.fsg.org/publications/water_of_systems_change

Reprint Permission



This work is licensed under the Attribution-NonCommercial-ShareAlike CC BY-NC-SA

You are free to copy, display, and distribute our work, or include our content in derivative works, under the following conditions:

 Attribution: You must give appropriate credit and clearly attribute the work to Strada Education Network and provide a link back to www.stradaeducation.org. Our preference is to cite figures and tables as follows: "Source: Strada Education Network, [name of publication], [year of publication]." You may do so in any reasonable manner, but not in any way that suggests that Strada Education Network endorses you or your use.

 Noncommercial: You may not use this work for commercial purposes.

 If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.

To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-sa/4.0/>

Published November 2019