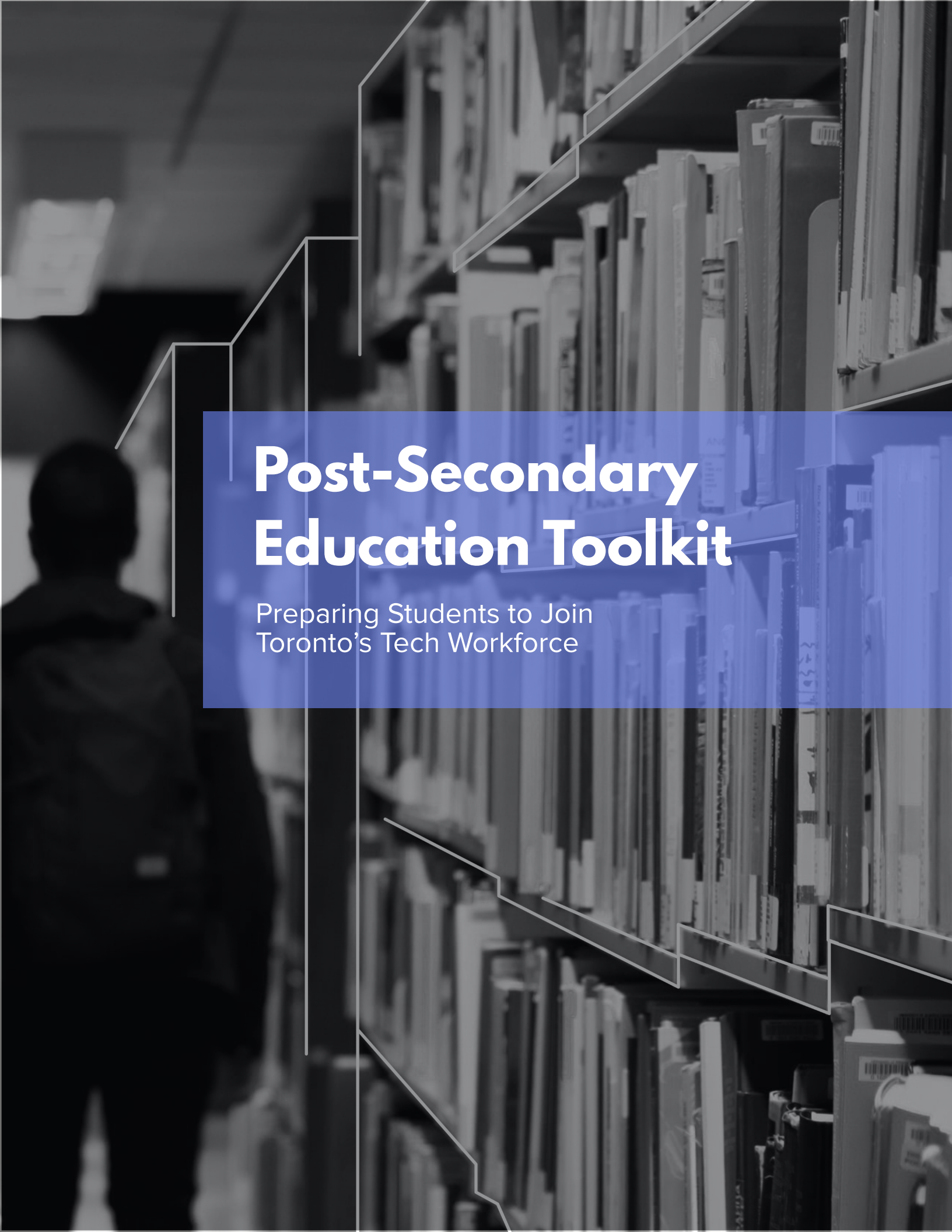

Post-Secondary Education Toolkit

Preparing Students to Join Toronto's Tech Workforce

Preparing Students for a Job in Tech

This toolkit is for post-secondary education institutions (PSE) in Toronto, the Greater Toronto Area (GTA), and South Western Ontario (SWO). Your role in preparing students for the future of work is vital. With your help, you'll educate students with strong skills and experiences that allow our region to win globally.

This toolkit offers practical suggestions to bridge the gap between academia and industry so students hit the ground running.

RESEARCH FINDINGS

The foundational skills learned at university and college prepare students to seek fulfilling career opportunities. To work in Toronto's tech ecosystem, star employees must have both technical skills and power skills (what used to be called "soft skills"). Students and potential job seekers will be required to shift roles and responsibilities throughout their careers and frequently adapt within their main role to thrive. The power skills most needed are:

Communication skills are foundational to all five of these skills. We know that there are plenty of skills you can be focused on teaching outside of the technical skills, but our data have shown that these are the ones that standout.

Employers mainly hire through a combination of networking events, career fairs, LinkedIn, referrals, and online job boards. Within the tech ecosystem, there doesn't yet appear to be consistent hiring or retention strategies taking into account diversity, inclusion, and belonging (DIBs).

Tech employers told us that there is a tension between hiring quickly and hiring for diversity. This speaks to the importance of job seekers being on the radar of employers as much as possible. Tech moves quickly. Being ready and connected to the ecosystem prior to leaving school will benefit job seekers most.

WHAT YOU CAN DO

To support the process, PSEs must stay on top of industry developments. Career services departments can host workshops, networking sessions, and provide mentorship for students seeking employment in tech. Ideally these experiences are on site at companies so that students learn the nuances of different business units.

STEP ONE

ENGAGE THE TECH ECOSYSTEM

Engage regularly with the tech community to learn what projects and particular processes are being used. This step helps you understand the environment of the industry and how to position the student's skills and attributes for the business context.

Engaging with the tech ecosystem must go beyond engaging with recruiters. PSEs must connect with industry leaders, technical experts, founders, managers, and more. This connectivity allows schools to learn about the quickly changing needs of employers, especially in the context of changing economic conditions. In recent months we know many employers have laid off staff. This may change the playing field for students in seeking co-ops and placements.

Many job seekers we spoke to expressed confusion about how to stand out to employers. They aren't sure how to present themselves to show they are capable. Having their university or college give them the appropriate language to use at events and in interviews will be helpful. The language of tech needs to be learned like any other jargon or specialized field to be considered for an opportunity within the group.

This conversation can be started early in a student's school career but must be prioritized in their final year.

Most important, ensure counselling departments are connected with professional associations and the business community, beyond the campus recruiters.

STEP TWO

ENSURE ALL DEPARTMENTS TEACH POWER SKILLS

Power skills are not just important for some fields. Our research shows that collaboration is the key skill required by all roles in tech companies. PSEs must respond to the skill needs of GTA tech employers by finding opportunities to integrate the core power skills into courses and faculties.

When faculties discuss electives with new students, encourage them to balance their skill development. For instance, students studying computer science, mathematics, or engineering should be encouraged or required to take courses that offer power skill development, such as business, management, or art and humanities. Whatever a student's major is, they should be encouraged to take electives in opposite skill

development areas. Tech looks for balanced individuals. They seek those that are independent yet collaborative, technically savvy while being creative. Schools must help students graduate with a unique mix of technical skills and power skills before entering the workforce.

The most desired tech skills are collaboration, adaptability/agility, enthusiasm to learn, work ethic, and coachability. When teaching these skills, make the connection for students. Tell them directly why and how these skills are relevant to their careers. To stress the importance of power skills, faculties can attach a grading component to skill development. Schools with cooperative education programs do this already, but much of it is for a pass-fail mark. Instead of downplaying its importance, stress the value of power skills by making it as important as mid-term evaluations.

STEP THREE

EXPOSE STUDENTS TO DIVERSE WORKING ENVIRONMENTS

Almost half of Ontario's post-secondary students take part in "co-op, internship, field placement or some other form of experiential learning by the time they graduate."[1] Every student that passes through the doors of PSE in the province should graduate with at least one work-integrated learning (WIL) opportunity.

[1]Higher Education Quality Council of Ontario. "Work-integrated learning," Retrieved April 2020, http://www.heqco.ca/en-ca/OurPriorities/LearningOutcomes/Pages/work-integrated-learning.aspx

Increase co-op, internship, and apprenticeship opportunities for students interested in the technology sector. Encourage these to be places where they grow their networks and increase their understanding of a specific expertise or discipline by partnering with start-ups. This exchange of information between industry and academia is key to students being able to relay the industry trends and experience observed first hand to peers and professors, as well as in future interviews.

STEP FOUR

HELP STUDENTS TALK ABOUT THEIR SKILLS

Students are gaining valuable experience but may not know how to talk about it. PSE's must help students identify and translate their experiences into career-narratives. At times, students may not know that they possess or have used a power skill and thus cannot point to it in interviews. This helps students standout to employers, builds their confidence, and helps them make connections between what they've done and what is valued by industry.

Mentorship is a fluid way to further develop this career-narrative. Students must find a mentor with 2-5 years of experience in an industry, and take part in projects sponsored or supervised by companies. A mentor will help navigate the industry landscape, and make connections to their networks.

Volunteering within industry is a powerful tool to over-index on practical experiences, and build power skills within a group setting. This practice builds students' confidence, vocabulary and references to talk about their skills. Students cannot afford to wait to finish school before attending industry events and becoming exposed.

STEP FIVE

TAKE AN AGILE APPROACH TO EDUCATION

Working in tech is competitive. Students are looking for many opportunities to stand out to employers. As a result, university and college must design and implement curricula that train students to be ready for the future of work. Today, the skills that need prioritizing are adaptability, collaboration, lifelong learning, work ethic and coachability. This may mean re-thinking courses, programs, and modules. Tech is known for its agility; Ontario's PSEs can be too.

Students are increasingly looking to alternative learning options through accelerated courses. These are often called "learner-centered approaches" and "industry-led curriculum". Enrolment is in high-demand for short courses through Coursera, BrainStation, HackerYou, CampTech, BitMaker Labs, Lighthouse Labs, and more. This is because these institutions are able to make changes to modules and learning opportunities that prepare students for the workplace.

The college and university systems must not be complacent in creating innovative education experiences. Looking at learner-centered approaches and industry-led curriculum are just some of the new ways PSEs may need to think, in order to keep up with trends. This new way of thinking must be consistent and industry driven in order to adapt as necessary, and take advantage of the talent gap in tech right now.

To prepare students for a fulfilling career in the tech ecosystem, post-secondary institutions must play a role. We encourage you to connect with the industry, teach power skills to students, help students speak about their experiences, and re-evaluate core curriculum where necessary. We cannot win as a region without you.