



How the Digital Skills Gap is Failing Higher Education and How to Close It

“Something is clearly wrong when only 11% of business leaders — compared to 96% of chief academic officers — believe that graduates have the requisite skills for the workforce.”¹

-- Harvard Business Review

Why This Matters Now

Nationwide, as well as across the globe, colleges and universities are awakening to an urgent and widening issue: multiple digital skills gaps affecting their students and faculty with consequences reaching far beyond campuses. Key among these challenges is a lack of preparation for students entering the workforce, requiring instruction in both hard and soft skills, along with a new kind of digital literacy that far exceeds job-specific training.

College and university leaders – long expected to provide forward-thinking solutions to meet the needs of educators and students – must rise to this challenge. They need to embrace the methods of 21st century learning, while avoiding undue pain and disruption to learning activities. And they are tasked with doing so in a way that sets them apart within the highly competitive higher education industry.

The good news is that with a bit of planning and guidance, the skills gaps that exist on campuses today can be effectively closed.

Read on to learn:

- The three types of digital skills gaps that exist on university campuses and why these chasms are manifesting
- The eight core digital skills needed for both post-secondary educators and college students to thrive in the 21st century workplace
- The practical steps to start deploying digital skills training to students as they ready themselves for employment

“Adequately defining and supporting digital literacy is a solvable challenge.”

- Vivian Forssman
Director of the Center for Teaching and Educational Technologies
Royal Roads University, Victoria, BC, Canada
2014 DET/CHE Conference ²

Challenge #1:

There are multiple skills gaps residing on campuses

A) GENERATIONAL Skills Gap: There is a massive digital fluency divide between students and post-secondary education faculty

Teaching in the 21st century is not easy. Digitally-savvy students, with endless access to readily available information, challenge the traditional picture of the teacher as the knowledge instigator. Student populations are digital natives, while their professors, typically, are not. With the exception of young and rising educators, faculty are often not as experienced and, therefore, not as comfortable using social media and other digital solutions in the classroom.³ Under the adage of “You can’t teach what you don’t know,” it stands to reason that for students to embrace technology in the classroom, university faculty must first possess the essential digital skills necessary to teach to them. The following statistics show how students and educators differ in their adoption and approach to technology: ⁴

- Roughly 90% of all students now own a laptop
- Nearly half (47%) of all college students own a tablet (up from 31% in 2013)
- Nearly half (49%) of undergrads said they get more involved in courses that use technology
- Mobile device ownership among undergrads is now 86% (up from 76% from 2013)
- Yet, nearly 70% of instructors say mobile devices in class distract or disrupt while more than half ban or discourage usage; only 30% create assignments that incorporate mobile technology

“Despite the widespread agreement on the importance of digital media literacy, training in the supporting skills and techniques is rare in teacher education and non-existent in the preparation of faculty.”

-- NMC Horizon Report: 2013 Higher Education Edition ⁶

B) TECHNOLOGICAL Skills Gap: There is a gap between the digital skills educators currently possess and those they should possess

Digital technology advances at such a rapid pace, keeping up-to-date is like trying to harness the wind. A recent study by consulting firm Deloitte found that the rapid pace of technological change in the workplace is leading to a skills half-life of just 2.5 years.⁷ That means many post-secondary educators have consequently seen their once-relevant skills replaced by new ones. Even the most tech-savvy will find that they're not operating at an optimal level of efficiency if they're not actively keeping up with digital skills training.

C) INEQUALITY Skills Gap: There is a wide spectrum between the digital skill levels of all college students, known as “skills inequality”

The majority of university students possess some digital skills, but to varying degrees. Leveling the playing field among college students will allow educators to better incorporate learning that all students can benefit from, instead of having to cater to the weakest skillset.

In addition, while those who attend university are typically net denizens, a high number of students surveyed by Educause said they'd be more effective in their student role if they were more skilled at different types of technologies.⁸ Another study found that 31% of students reported their schools don't offer, or they're unaware of offerings, that encourage the development of technical or digital skills.⁹ Moreover, 52% of students think more practical skill development – including digital and technical skills – should be required at college.

Finally, just because post-secondary education students own digital devices and are seemingly ever-connected doesn't mean they inherently know the etiquette, safety, and privacy needed to navigate the digital world, especially in a professional context.¹⁰

“...students still have a complex relationship with technology; they recognize its value, but they still need guidance when it comes to using technology in meaningful and engaging ways for academics.”

- Educause Center for Analysis and Research report, “ECAR Study of Undergraduate Students and Information Technology, 2014”

Challenge #2:

Colleges and universities are now expected to be the go-to place for learning digital skills

Although some K-12 schools have begun teaching digital skills, colleges and universities are frequently being called upon to teach, expand, and enhance the kinds of mandatory skills needed for the 21st century workforce.

In addition to hard skills (languages, financial modeling, computer coding, website design, physical therapy, accounting, etc.) as well as soft skills (etiquette, social interaction, collaboration, communication, critical thinking, time management, problem solving, etc.), digital skills are expected to be taught in order to prepare students for their careers. College graduates will need to hit the ground running and be able to seamlessly fuse into, and be fully functional within, the digital workforce.¹¹

Yet, there's still a skills gap, say employers. While 44% of college students think they've been digitally well-prepared by their college or university at the time of graduation, only 18% of their bosses agree.¹² Business leaders continue to report that workers aren't coming to the job with the correct skillset: 24% say recent grads are unprepared for entry-level positions,¹³ while 61% of decision-makers give colleges a C or lower grade on preparing students for their first job.¹⁴ Perhaps this is why in 2012 the U.S. private sector spent \$53 billion for on-the-job training.¹⁵

Companies today seek workers "with a different skill set: technical, problem-solving, knowledge acquisition, the ability to work in teams, and cross-culture."

- Stanley Litow
IBM Corporation Vice President ¹⁶

Challenge #3:

Traditional instruction is no longer adequate for teaching digital skills

Classroom training has been shown to have its disadvantages when it comes to digital education, particularly as it applies to engagement and retention. Studies show that over 90% of what is learned in a classroom setting is lost within 30 days.¹⁷

However, schools need not feel forced to choose between traditional learning methodologies and newer ones, as the two can easily dovetail. This model could include blended learning techniques that encompass strategies such as microlearning (small, bite-sized “chunks” of learning), “just in time” access (used at the point of need, such as when reviewing for an exam) or on-demand capabilities. Instead of being perceived as adversarial, blended learning can enhance -- not distract from -- traditional learning environments.

For example, The Center for Digital Education reports that blended education models -- those that incorporate elements of “brick-and-mortar,” in-person instruction with asynchronous, self-paced online learning -- improve comprehension and test scores for 84% of students.¹⁸



Technology-Enhanced Learning

“Technology on its own is not a reliable engagement strategy,” says Vivian Forssman, Director of the Center for Teaching and Educational Technologies at Royal Roads University, Victoria, BC, Canada.

“But well-designed courses which use technology to empower people to work together at a distance, creating new knowledge, new initiatives and societal change as part of their learning experience, is where student engagement happens.”¹⁹

“(E)xperience suggests that in many cases a classroom based event is best replaced by a blended solution, with part in the classroom and part e-learning.”

– EPIC Performance Improvement LTD.²⁰

What Next Steps Should College and University Leaders Take to Close Their Skills Gaps?

STEP #1: Identify the specific digital skills gaps that live on your college or university campus.

STEP #2: Decide what results you want to achieve, and what your time frame is for closing identified gaps -- both over the short- and longer-term.

STEP #3: Determine which digital skills should be learned by your university's educators and which should be taught to students, or both (read on to see the 8 core digital skills that Grovo recommends).

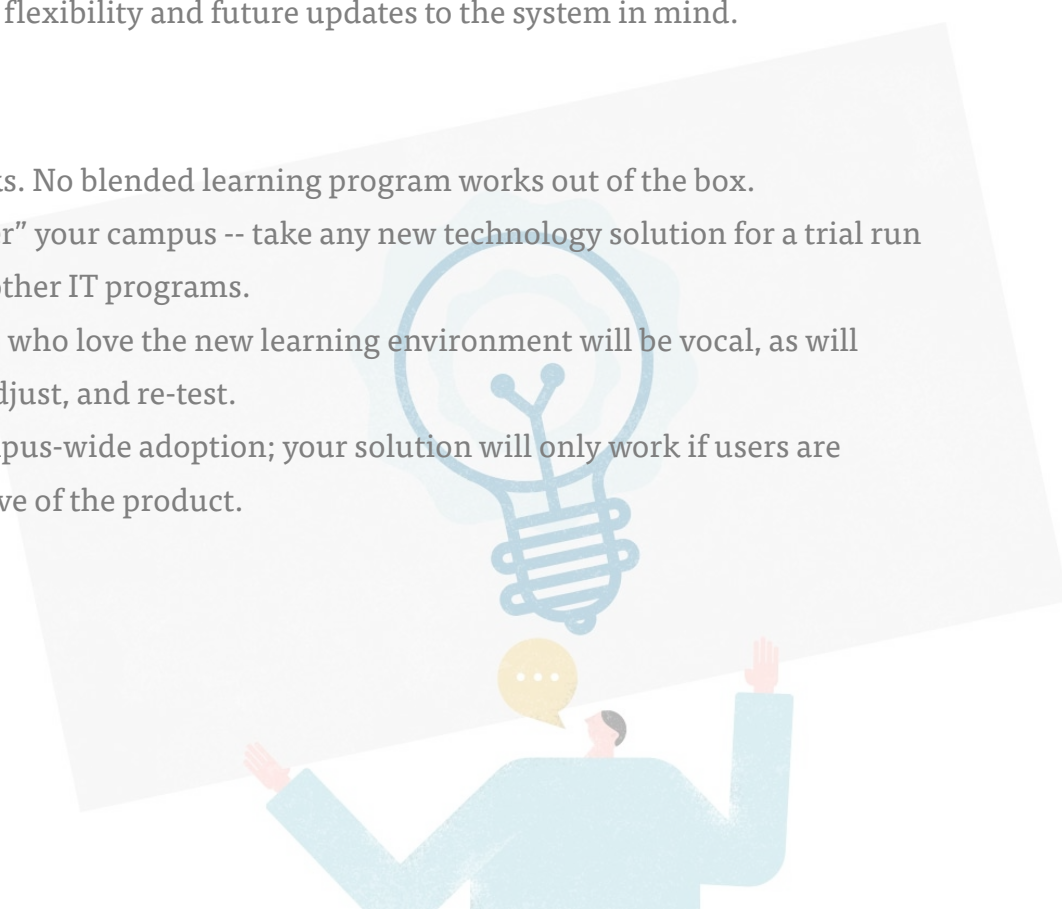
STEP #4: Choose a well-equipped, experienced provider to partner with to help you custom-design your blended learning plan -- keeping budgets, time horizons and references in mind.

STEP #5: Use data reporting to analyze your students' and/or educators' results against your designated objectives. Determine what's working and by how much in order to adjust and improve.

STEP #6: Map out a long-term plan for transforming your higher education institution into a 21st century campus, keeping flexibility and future updates to the system in mind.

Reminders:

- Expect and address setbacks. No blended learning program works out of the box.
- Don't let technology "clutter" your campus -- take any new technology solution for a trial run to see how it meshes with other IT programs.
- Be open to feedback. Those who love the new learning environment will be vocal, as will those who loathe it. Test, adjust, and re-test.
- Once ready, encourage campus-wide adoption; your solution will only work if users are engaged with and supportive of the product.



Case Studies

Case Study: Going Digital²¹

Among the futuristic features of Florida Polytechnic University is a fully digital, bookless library.

The inaugural class of 550 students were able to access more than 135,000 eBooks on their choice of reader, tablet or laptop. For those who desired it, traditional paperback books could be loaned out via one of Florida's 11 other public universities.

Without stacks to organize, reference librarians were able to focus on steering students to tutoring resources and training them in managing digital materials.

Case Study: Teaching the Teachers²²

At Clemson University, aspiring teachers are collaborating to develop and review digital lessons, learning to use social media to find classroom resources, and partnering on projects that emphasize technology with students from other majors.

The goal: to raise future teachers' tech-proficiency, including increasing course requirements and setting up forums for future educators to share ideas on crafting lessons using technology tools.

Clemson officials designed a program requiring undergraduate aspiring educators to take the three-credit Foundations of Digital Media and Learning course, focused on building their understanding of technology and its classroom applications.

"...with better technology and a much deeper understanding of how students learn educators are beginning to make strides in personalizing learning by combining the best of traditional teaching with digital technology, using analytics to track student success, and focusing on competencies rather than credit hours."

- The Center for Digital Education ²³

Grovo's 8 Core Digital Skills Essential for Teaching and Learning in the 21st century:



Document Creation, Collaboration & Management

Learning how to create digital documents, share them with others, annotate them as necessary, and then locate them at a later date are critically important skills. Being fluent in creating and managing documents -- both for students and educators -- is at the core of digital literacy.



Project Collaboration & Management

Learning in a college environment usually includes higher stakes project collaboration with classmates and faculty members working together on projects, reports and research topics. For students, as well as university educators, these skills often include time, course, and schedule management with workflow best practices.



Focus and Attention Management

There is no shortage of distractions in today's 24/7, 'always on' world. Attention spans have shortened considerably over the past decade.²⁴ Being able to filter out surrounding "noise", focus on a task at hand, and give a lesson, project or learning experience your full attention has become more of an art than a science while prioritizing tasks has also become a critical skill within the educational process.



Communication

Effective communication skills strike at the very core of the college campus experience. Communications between professors and their colleagues, professors and students, students and their classmates, and students and the outside world are vital. Increasingly, digital communications -- including email, instant messaging, social media, and more -- have become favored methods of communication. With such prominence, digital communication skills can and must be mastered.

Grovo's 8 Core Digital Skills Essential for Teaching and Learning in the 21st century:

continued



Digital Etiquette

Also known as “netiquette”, understanding the rules of the road for communicating in a digital environment has become an imperative. This includes understanding the risks of being on various social media platforms, watching for online stalkers, digital reputation management and tackling the online rumor mill. Mistakes and poor judgment can have negative, and sometimes lasting, implications for students, educators, administrators, as well as university reputations.



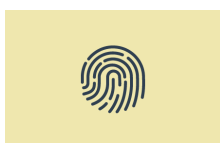
Search & Research

With the sheer proliferation of online information, data, and databases comes the need to effectively, efficiently and soundly tap into the information being sought, without falling into online traps. Students and educators must have the critical skills necessary to access specific information quickly and effectively and be able to determine whether an online item is fact, fiction, or fantasy.



Platform Flexibility

The growing use of various digital devices has increased the need for students -- as well as educators and other personnel -- to be able to competently navigate across a bevy of platforms and operating systems. The ability to learn and utilize new technology as it goes mainstream has become more important than ever.



Security & Privacy

Every day, news headlines report various breaches of individual and organizational privacy and security. Consequently, it is crucial for students, educators, and institutions of higher learning to know how to protect their personal information and their privacy. Security breaches can expose many to undesirable consequences. Proper training in state-of-the-art security measures is not only critical, but common sense.



Grovo makes it easy for people and organizations to learn the critical digital skills needed to succeed in today's connected world. We teach modern digital skills with more than 4,700 video lessons and assessments covering over 150 Internet tools, cloud services, and professional topics. Grovo's proprietary microlearning method, delivered via 60- to 90-second videos, is housed in a beautiful and effective training platform. For more information about the digital skills gap(s) on your campus, how to equip students for the 21st century workplace, or how to get started with a solution, visit [Grovo.com](https://www.grovo.com) or contact us at:



Microlearning helps solve the digital skills gap for educators. For more information check out our white paper:

[*"Bite Size is the Right Size: How Microlearning Shrinks the Skills Gap in Higher Education"*](#)

or request access to our online video course

"Training the Trainer on Creative Microlearning"

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