THE SKILLS GAP

What you need to know about it, how it affects Higher Education and ways to solve it?

January 2019

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Summary

This white paper tries to tackle the problem of the existing digital skills gap between what students learn in Higher Education institutions, and the skills they need to develop in the professional world.
Our goal is to understand how and why such a skills gap exists and to propose ways to solve this problem.

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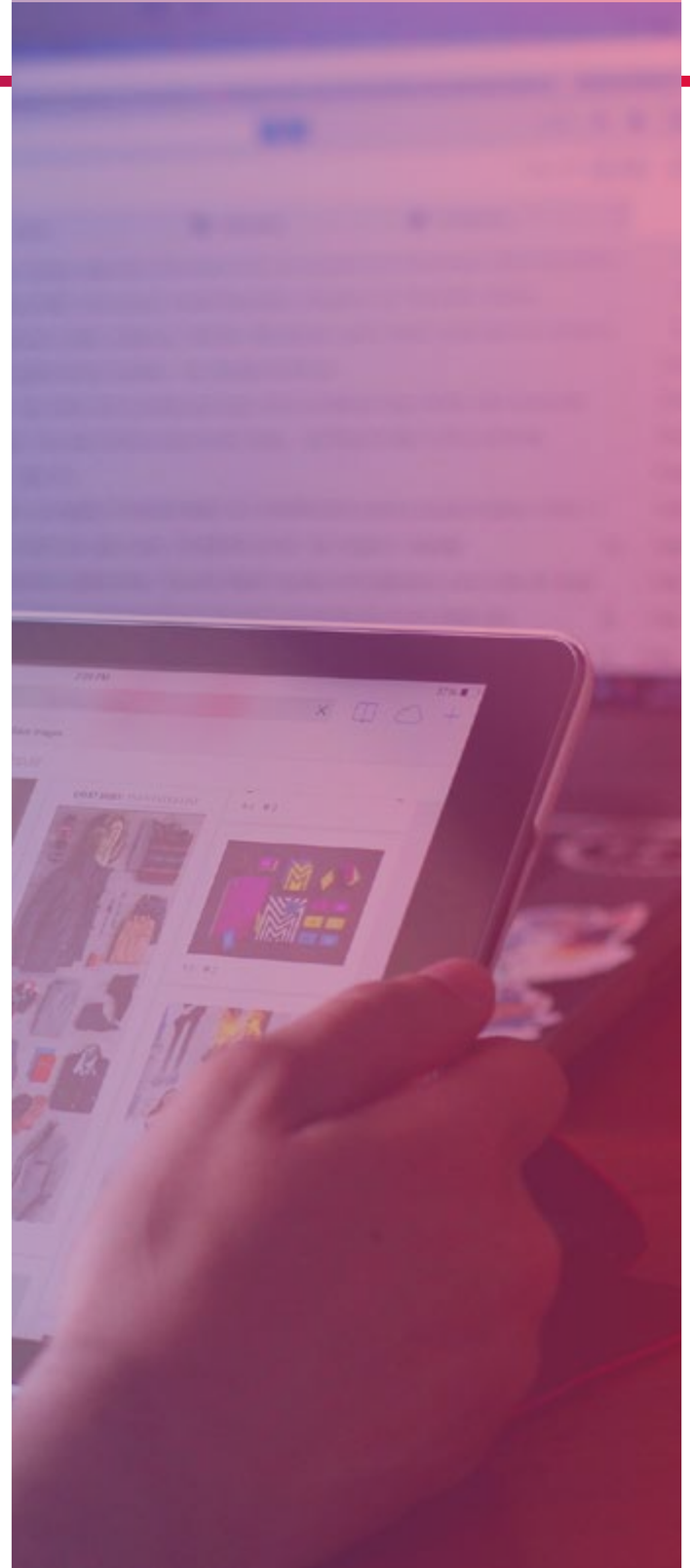


Introduction

According to Josh Bersin, founder of Bersin by Deloitte, while **72% of school directors** believe newly graduated learners are ready for work, **42% of employers actually do.**

Two things explain this:

- The skills needed in the professional world are evolving and changing too fast.
- The Higher Education isn't adapted to today's new approach to learning and needs to reform.

We investigated...

"We don't have a jobs crisis in the world, we have a skills crisis."

Josh Bersin

1. What is a skills gap?

With visible and rapid changes appearing in labour management and internal structures, studies find that both workers and employers are increasingly concerned with the skill gap.

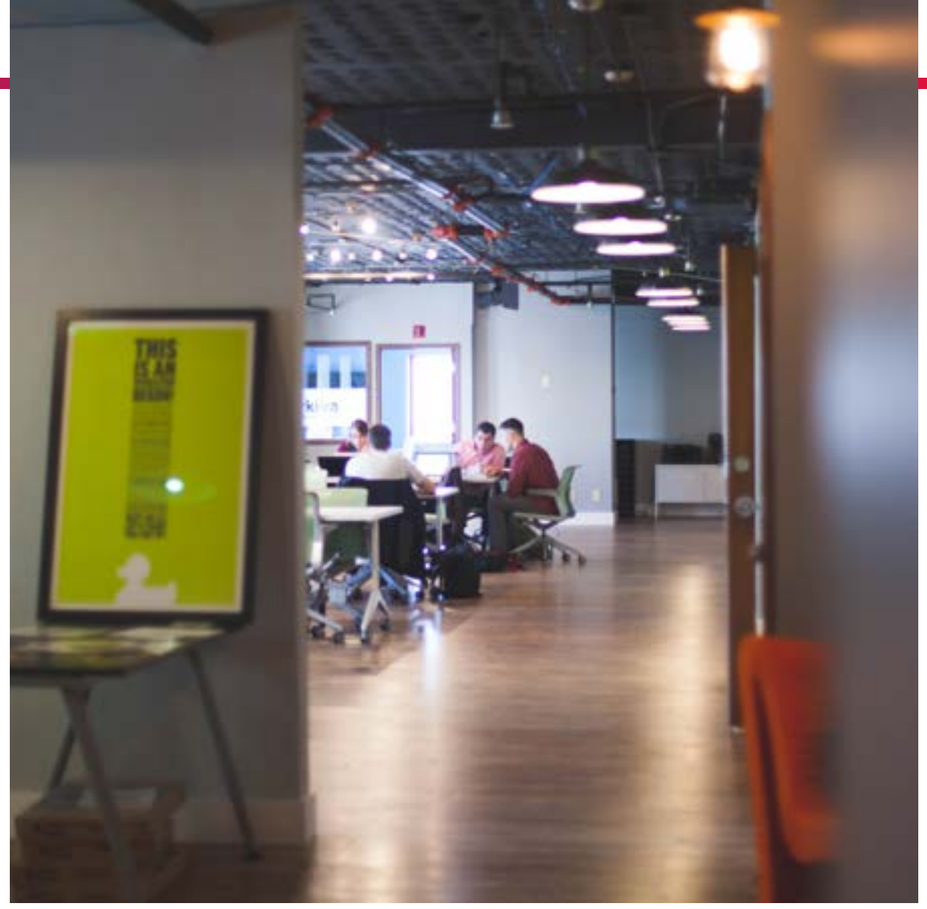
A skill gap is commonly defined as **the difference between skills that are required for a job, and the skills employees actually possess.**

An employee is typically recruited by a company to work on fulfilling its objectives and needs. Hence, companies hire people with the appropriate skill sets.

However, **it often happens that employees lack specific knowledge & training, which creates a skills gap.** This leads to the employee's inability to correctly perform the complete task. In the larger picture, skills shortages endanger the company's growth and competition level.

Individual organisations and industries are not the only ones feeling the consequences of skills gap. Entire communities, states, regions, and nations pay a heavy price when they fail to find or equip workers with the right skills for critically needed jobs.

Why is that? And what can organisations, training programs, employees, and the educational system do to eliminate the gap?



2. What employers need vs skills taught?

"All of the engineers say you learn 10% of what you need to know in school; the rest you learn on the job."

says a former graduate student at the University of British Columbia.

Facing a global and fierce competition, companies (large and small) **must rise above the noise..**. and it's much harder than before.

Thus, employers need to rapidly adapt and make their companies attain **a targeted technological potential.** The repercussions are many: **structural and organizational changes, cultural changes etc.**

Companies must show **adaptivity**, must be **result-driven** and must multiply testing in order to find the right channels, the right tools, the right markets.

More than tech, employers need **people with ideas** and **skills** to keep up with the fast changing markets.

Remember, 5 years ago Uber was just a small startup with a «poor» tech behind, now take a look at the delivery industry.

The problem is that companies have neglected digital talents and talent management, preferring hiring in institutions of reputation. According to a survey by the Dutch growth hacking academy Growth Tribe, nearly 50% of the organizations studied said they have not taken digital talent seriously.

Worse, according to survey by LinkedIn, 54% of organizations are suffering from a loss of competitive advantage due to a lack of digital talent.

While the biggest tech companies stopped hiring based on a degree, favoring skills over it, overall hiring techniques have pivoted from general knowledge, ideation and mastering of basis toward ideation, adaptation and technical skills.

Results show that students, on average, lack either skills or experience, which doesn't help them grow over the years.

How much do students lack skills after Higher Education(that is business school, engineering school or university)? See for yourself below.

Hard skills needed by employers compared to what students can learn through Higher Education

(according to a survey by Growth tribe)

Most demanded technical skills by employers today	What Higher Education can provide to students today
Growth marketing	No
Content creation	Yes
Automation/AI	No
Campaign management	Yes
Blockchain management & marketing	No
A/B testing	No
Machine learning	Yes
CRO	No
Analytics translation	No
Code (Ruby/ Perl/Python)	Yes

Soft skills needed by employers compared to what students can learn through Higher Education

(according to a survey by LinkedIn)

Most demanded soft skills by employers today	What Higher Education can provide to students today
Fast adaptation	No
Team working	Yes
Ideation	Yes
Experimentation	No
Time management	Yes
Critical thinking	No
Leadership	No
Willingness to learn	No
Problem solving	Yes

3. Higher Education can't keep up. Why?

3 issues inherent in the Higher Education system explain why it's not going fast enough to keep up with technology.

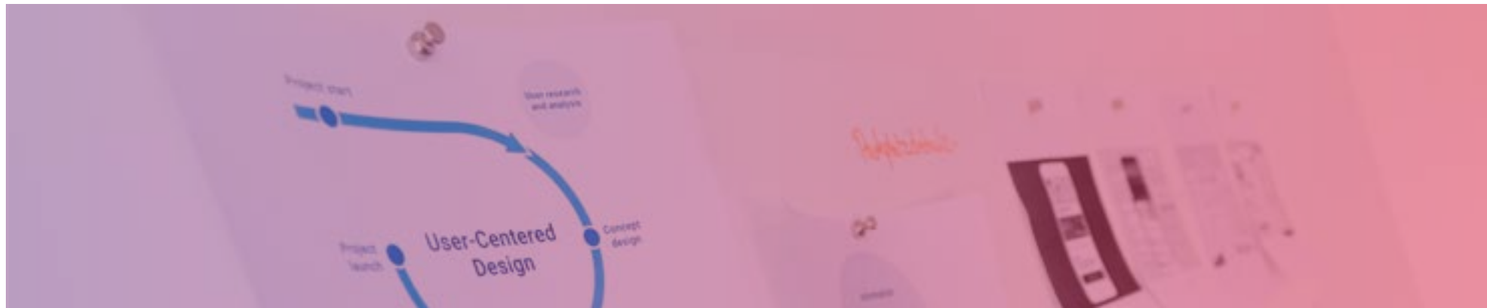
1. The grading system doesn't help students learn from what they truly are interested in.

2. Administration's and faculty's processes aren't adapted for fast adaptation. For example, curriculums are updated too slowly.

3. Teaching isn't the main strength for most professors in Higher Education.

David Arnoux, co-founder at Growth Tribe

"The thing you learned a year ago might not only have evolved, it might simply be irrelevant today."



Are grades that bad?

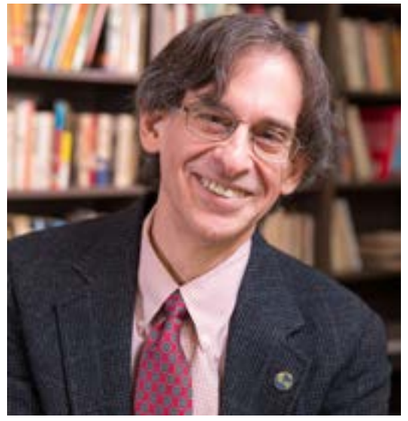
As the current grading system is mainly adapted for standardized assessments, it is **not representative of skills or potential.**

Indeed, grades only give a **feedback based on several criteria that don't match what is needed by employers,** that is: lessons have been learned, students understood concepts, students came to courses.

Grades being at the center of learning for most students, in the end, they're not able to learn or develop skills. Worse it has been proved that the grading system leads students toward losing interest in learning and their future plans.

Mastery-based grading, or competency-based grading are more able to reflect one's ability to use what have been learned in a given situation.

also...



According to **Alfie Kohn** grades as they are used today:

- tend to **diminish students' interest** in whatever they're learning
- create a preference for the **easiest possible task.**
- tend to **reduce the quality** of students' thinking

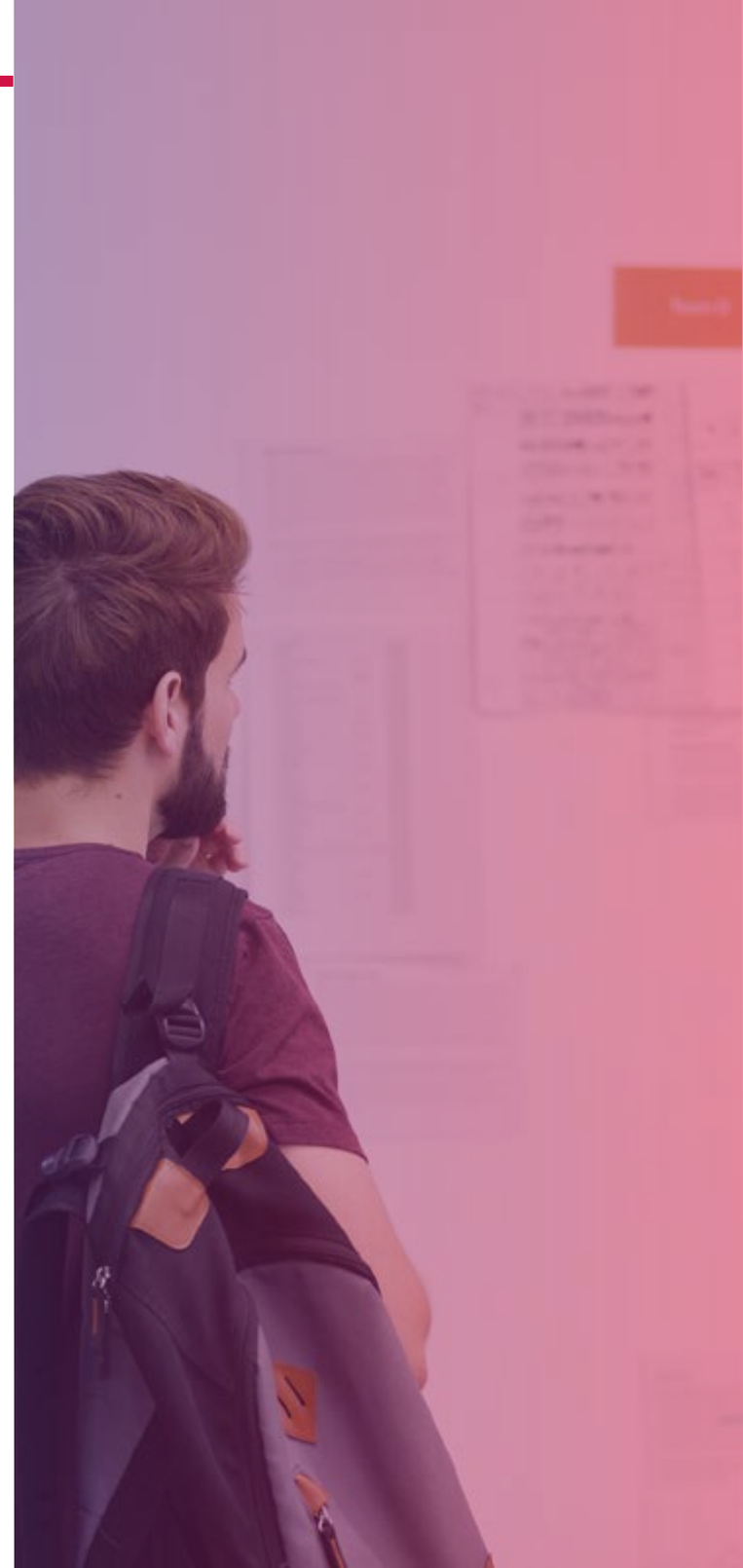
A structure that’s not adapted.

Higher Education institutions have structures that are not adapted to the need for skills development. Especially at these levels:

1. **Curriculums change too slowly**
In average curriculums change every three years whereas new trends pop up every year, especially in computer science or marketing. This creates a gap in what students master and the reality of the marketplace.

2. **Faculty and administrators are not data-driven**
Data-driven decision-making was the biggest trend in Higher Education in 2018. So there’s a focus. Still, today, most of faculties do not exploit data in order to improve learning either because of a lack of solutions existing, a lack of understanding or because not enough people are managing the transformation.

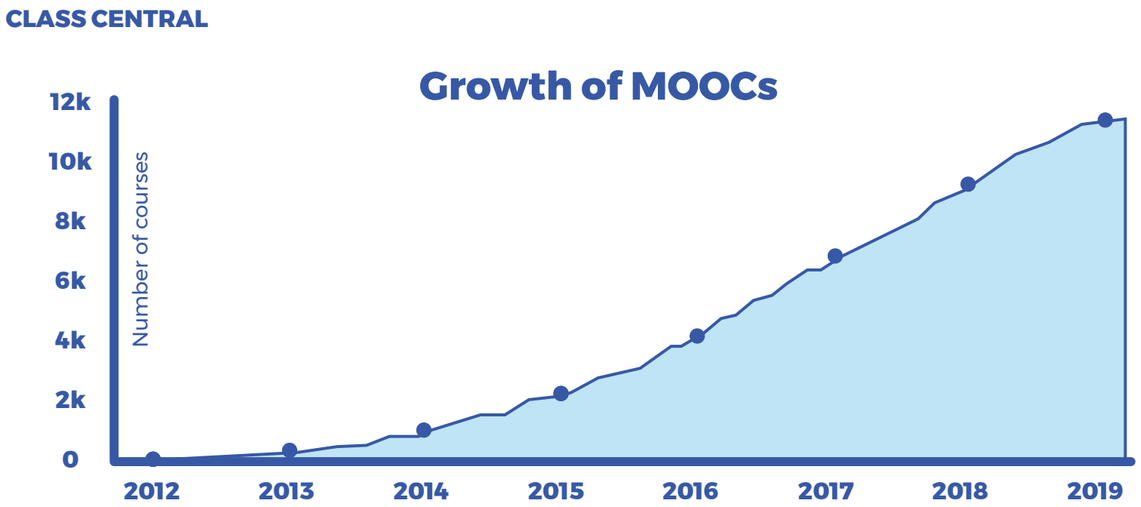
3. **Research might still be too much at the center**
Much pressure is put on professors who have to publish constantly, and the rate of publication is growing. According to Philip G Altbach and Hans de Wit, *“Reducing the number of academics articles and books would [...] remove massive stress from academics who worry about publication rather than teaching and service.”*.



4. Other learning environment?

Personal/Online Learning - A Revolution? Yes. For 5% of learners.

Online learning is trendy and still goes up and up.



By the Numbers : MOOCs in 2018

More than **101 million of students** are registered to MOOCs [according to Class Central](). **900+ universities** have their own online learning program, even Harvard (since recently). However, while registrations have gone up, student success rate has gone down **(less than 50%)**. Most students failing at these courses are undergraduates and the most advanced the student, the more successful he is.

So the success is mitigated. Even more when we look at Online Learning applied in Personal Learning. The average **completion rate of a MOOC, say, on Coursera, is around 13%.**

According to Robert Ubell, *"people just graze or glance or bounce in for a minute. Those who did finish a MOOC were accomplished learners, many with advanced degrees."*

MOOCs companies didn't realize traditional lectures were changing into more active learning lessons. They just replicated the traditional lecture and put it online. And although it has great value for people already specialized or able to teach themselves, it hasn't an impact as deep as we think on global Higher Education.

"*Online education is complementary to traditional Higher Education*" says Keith Pond, Director of EOCCS certification (EFMD)**, "*it is very useful in blended learning methods, but not always by itself.*"**

Concerning other methods of Personal Learning, overall, it still is one the best way to learn new things because you can apply what you learned in a book directly on a project you personally have. But this great learning method works only for 5% of the people.

Discipline, self-teaching, planning are the skills amongst others that you must have before seriously teaching yourself.

On-The-Job Learning: the best... but get hired first

A company that has a well shaped training program is probably the best way to get hard and soft skills while experiencing a great integration.

But two problems arise here. The first is that in order to get trained, you must first get hired. According to a research from the European Commission, **students have to have skills to get hired in order to learn skills.** Paradoxical and quite nonsensical from the employers who just don't help solving the problem.

The second is that many companies don't build an effective learning dynamic for their employees because **they're not horizontal enough or because they're not mixing teams** to motivate peer-to-peer learning.

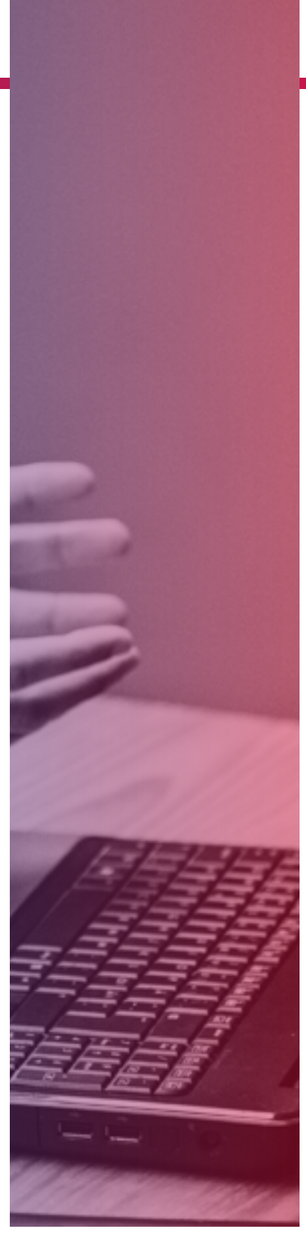
This is a wasted opportunity when according to a LinkedIn report on the Workplace, **94% of employees would stay longer in their companies if they invested more in learning and training.**

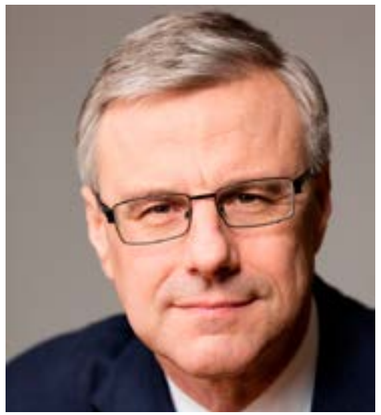
So... what's going on?

Yes Higher Education has some struggles with its values and structures but so have the other actors of learning. Let's say the main problem of Higher Education is **its slowness to adapt.** By looking at Online learning and On-The-Job Training, it is possible to create a model that'd be proactive and that would benefit learning for students.

Higher Education, in any case, is far from being left behind the race toward knowledge. No way. More than ever, a diploma still is useful to enter the job market. More than ever, the university experience still is rich and **a rich environment from where you can learn soft skills as explains Johnny Harris, reporter and video producer at Vox media.**

To conclude, the digital skills gap **is not a new thing** for Higher Education managers and faculty. It is a problem that is known, solved in some cases, in process to be solved some in some others. There are actions taken!
The Question now is "How do we make Higher Education a powerful & adaptive structure for learning"?
How do we solve the skill gap?





Alain Dehaze,
CEO of The
Adecco Group

"The skills we highlight in schools must be aligned with those demanded by the labour market, but courses at university often aren't. I therefore encourage those in charge of education to draw inspiration from the Swiss educational system, which integrates the latest technological changes requested by its educational programmes in a structural and permanent way."

5. New structures, new processes

1. Data-driven approaches to better manage learning.

Institutions need to be more data-centric to focus more on how to develop programs, curricula and pedagogy.

Data-driven methods help to better assess and grade students on the right skills. It helps also to better teach them.

Students feedback tools, Learning analytics, mobile-based engagement apps, e-Assessments are many solutions that can help professors and managers have a better idea of what students need to learn.

Combine it with a clear understanding of the skills needed today on the labour market, you can then **design a learning experience that will be active, adaptive, engaging and full of skills to learn.**

2. Changing the way we grade and assess students.

Changing the way students are assessed and graded can be a reliable way to close the skills gap.

By designing assessments that are more formative and more intertwined with the learning process, grades become more representative of one's student skills.

The Pecha Kucha method is an example of a successful way to assess students in a new way. Pecha Kucha is a Japanese method of presentation in which you **must present 20 slides while spending not more than 20 seconds per slide.**

This method of assessment is also **a great way to stimulate engagement in class and foster long-term memory.** Students, in the end, *"learn practical soft and hard skills that will help them in their professional life."* says **Keith Pond, director at EOCCS.**

Peer review or self grading has also proven to be effective. Don Wettrick**, founder of StartEdUp,** developed the concept of an Innovation classroom **where students set themselves goals and grade themselves according to these.**

In EAFIT University, in Colombia, a professor of Human Ressources tested self-assessment with his students. The results were that students were much more attentive to their work and tended to grade their copies as seriously as a marker would. Better, they would understand where they could improve.

3. Diversifying roles in administration and faculty.

Higher Education institutions have a load of administrators. While some say a reduction would be welcome, we say let's reorganize it make these jobs more attractive to young professionals or even graduate students.

Administrators can be key people in making Higher Education more adaptable to the change of the markets and the skills, more and more changing, needed by employers.

Hybrid jobs are rising, so should institutions go hybrid. How? Creating teams working in a horizontal way, and focusing on program development, market benchmarking, PR with companies, learning design, Edtech tools adoption, data analytics, could have a real impact on the tech potential and adaptivity of a school.

The goal would be to make administrations a place for experimentation, innovation and analysis.

In the meantime, the problem of a still deep focus on research is considered as the main source of pressure for tenured and non tenured professors in institutions. **Pivoting toward** pedagogy innovation is already in the air still, it is desperately needed go further.

"*Most of Higher Education professors are researchers not teachers*", as affirms Dr Keith Pond, "*They need training to be able to improve learning and skills development for students!*" Sweden is a perfect success story at this point.

Conclusion

- The skills gap exists but it doesn't mean Higher Education is the problem.
- It offers an environment where soft skills can be learned.

What Higher Education needs, to solve this skills gap, is structural change:

- First, it is important to trigger data-driven decision-making and a culture of data to administrators and faculty.
- Then the grading system. Skills change and the most important ones today are soft skills. The problem is that grades aren't effective at representing them.
- Finally, administrators and teams should be more diversified in order to adapt learning faster.

Many thanks to:

Dr Keith Pond,
EOCCS Director
at EFMD

Keith's extensive experience and affiliations are in the areas of Higher Education, Banking, Insolvency, E-learning, Accreditation of business teaching and consultancy.
As a Senior Lecturer (Loughborough), Visiting Lecturer (Birmingham), Project Director (EFMD) and volunteer at Banking and Business related organisations Keith enjoys an international network of colleagues, contacts, former students and friends.

About us

testwe
Security beyond simplicity

At TestWe, we try to solve the grading issue by proposing an e-Assessment solution that rejoins learning and grading. We make assessment easy to create and manage while giving students the opportunity to take their exams on their own device for more flexibility.

wooclap

Driven by the ambition to make teaching awesome and effective, Wooclap has developed an interactive platform to boost class interactions and measure the understanding of students, in real-time, through the use of smartphones.