HIGHER EDUCATION, DIGITIZATION AND SKILLS: IS QUALITY ASSURANCE ADAPTING AND HOW?

Dirk Van Damme

OECD/EDU
WHAT IS HAPPENING?
Strange things are happening to higher education

Economy
- Lifelong learning
- Digitalization

Society
- Skills
- Assessment
- New credentials

Higher education
- Diminishing returns
Diminishing economic and social returns

- Continued growth in demand, participation and attainment levels
- Concerns about returns, over-qualification risks and substitution of mid-qualified employment
- Skill levels in populations have not increased
- The social contract of meritocracy and social mobility has not materialised
- The economic and social foundation of higher education is slowly eroding
Increased demand, more qualifications

Relative share of attainment levels, 25-34 y-olds, OECD – 2000-2020
The monetary value of tertiary qualifications is still high, to a varying degree among countries…

Earning disadvantage of adults with below upper secondary education

Earning advantage of adults with tertiary education
...but might be inflated by substituting the mid-skilled on the labour market (polarization)
Despite massification, between ’90s and 2010s levels of foundation skills have slightly decreased.
The social contract has not materialised

Probability of tertiary attainment

- High (at least one parent had completed tertiary)
- Middle (at least one parent had completed upper secondary)
- Low (neither parent had completed upper secondary)

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<td>45% pts</td>
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• Disconnect between qualifications and skills leads to growing mistrust of qualifications
• Many highly valued skills not well signalled by qualifications
• Employers complain that higher education doesn’t deliver the skills they need - students are looking for useful skills
• A fundamental shift from qualifications to skills is taking place, slowly but resolutely
Qualifications do not deliver on the skills equivalent they promise

Proportion of 25-64 year-olds scoring at PIAAC numeracy level 4 and 5, by educational attainment of the population
The prevalence of over-qualification

PIAAC, 2012-15
The skills risk of over-qualification

Mean numeracy score among adults with ISCED 5A or 6, by selected qualification match or mismatch among workers (PIAAC, 2012 or 2015)
Qualifications becoming irrelevant?

Google, Apple and 12 other companies that no longer require employees to have a college degree

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Courtney Conley
@CLASSICALLYCOURT

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Does Higher Education Still Prepare People for Jobs?

by Tomas Chamorro-Premuzic and Becky Frankiewicz

JANUARY 07, 2019   UPDATED JANUARY 14, 2019
Assessment

• Instead of relying on the signalling value of qualifications, employers and recruiters gradually turn to their own assessments

• Explosion of assessment industry

• New skill-based assessments (performance tasks) proliferate

• Higher education is gradually losing grip on the assessments that matter in life
Skill-based assessments in hiring practices

Figure 4. Extent to Which Organizations Have Formal Skills-Based Hiring Initiatives Underway or Are Considering a Strategy That De-Emphasizes Degrees and Prioritizes Skills

- **22%**: We're not doing this - but might consider it in the near future
- **39%**: We’re exploring and considering this direction
- **23%**: We have made a formal effort to move in this direction
- **13%**: We’re not doing this - and not likely to consider in the near future
- **2%**: Not sure / don’t know

Source: S. Gallagher (2018), *Educational credentials come of age. A Survey on the Use and Value of Educational Credentials in Hiring*
New credentials

• To bridge the gap between learning and assessment, or to bypass qualifications, employers and students join forces in adopting new credentials:
  – Certificates
  – Digital badges
  – Micro-credentials

• Higher education’s qualifications now have to compete with a chaotic bazaar of credentials
Professional certificates most in demand by employers (US, 2017)

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<th>Top 5 Professional Certificates</th>
<th>Number of Requests</th>
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<tbody>
<tr>
<td>Certified Public Accountant (CPA)</td>
<td>276,880</td>
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<tr>
<td>Project Management Certification (PMP)</td>
<td>202,971</td>
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<tr>
<td>Certified Information Systems Security Professional (CISSP)</td>
<td>91,981</td>
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<tr>
<td>Automotive Service Excellence Certificate (ASE)</td>
<td>67,973</td>
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<tr>
<td>Cisco Certified Network Associate (CCNA)</td>
<td>67,746</td>
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</table>
• Transforming work and changing the demand for skills
• Fostering skill development
• Incentivizing re- and up-skilling
• Lowering the half-time life of qualifications
• Transforming the delivery modes of education and the participation modes in learning
• Digitalization and AI will obviously transform higher education
Digitalization fosters skill development

Expected effect of increase from 50th to 75th percentile of digital exposure on cognitive skill intensity

Less digital workplaces lead to skills obsolescence – more digitalization fosters skills.

Expected problem solving skills

- **most digital workplace** (above median in both non-routine and ICT intensities)
- **less digital workplace** (below median)

*Source: Survey of Adult Skills (2012, 2015)*
Digitalisation drives the need for further learning

Share of workers reporting needing further training for their job by education level (%)

- **Lower secondary or less**
- **Upper secondary**
- **Post-secondary, non-tertiary**
- **Tertiary – professional degree**
- **Tertiary – bachelor degree**
- **Tertiary – master / research degree**

**highly digital environment**

**poorly digital environment**
Digitalization opens up many channels and opportunities for learning

Share of individuals in European Union (28 countries)

- Reading online news sites/newspapers/news magazines
- Participating in social networks
- Seeking health information
- Consulting wikis (to obtain knowledge)
- Online learning material other than a complete online course
- Communicating with instructors or students using educational websites/portals
- Doing an online course

(The chart shows the share of individuals in European Union for different activities with 2017 or most recent data for 2011 or latest.)
• In the digital age, the lifelong learning imperative evolves from a noble, but soft idea into a hard reality
• Qualifications don’t last a lifetime, their benefits need to be upheld by experience, skills and skills use
• Concentrating educational investment in the first third of a lifetime doesn’t make sense anymore
• Learning opportunities abound, barriers fade away, but pressures also increase
• Lifelong learning urges higher education to rethink its place in the learning life-course
The reinforcement of skills use and learning

Adult participation in formal and/or non-formal education, by frequency of use of reading skills in everyday life (2012 or 2015)

Participation among adults with the highest frequency of use of reading skills in everyday life

Participation among adults with the lowest frequency of use of reading skills in everyday life
IS HIGHER EDUCATION ACCOMMODATING?
Higher education is not yet attracting older learners

Enrolment rates by age in OECD countries (2017)
Transforming education in a digital world is not what keeps leaders awake at night.

What Factors Will Have the Greatest Impact on the Future of Higher Education?

Issues ranked “most important” or “second most important”:

- Cost/student debt
  - 62%
- Work-force development/gainful employment
  - 42%
- Assessment of learning outcomes
  - 31%
- Competency-based education
  - 28%
- Improved student retention
  - 27%
- Self-directed learning
  - 9%

Note: Despite respondents’ focus on costs, only 2.4 percent of academic leaders at colleges offering MOOCs said their main goal was to “explore cost reductions.”

Source: Babson Survey Research Group
Get the data
It is NOT a revolution

California’s multi-million dollar online education flop is another blow for MOOCs

Once-celebrated online courses still haven’t lived up to the hype

by RYAN DEROUSSEAU

“Reinvent.”

That was the giddy catchword of a plan by the University of California to create an all-digital “campus” that would revolutionize higher education by providing courses online for students shut out of the system’s brick-and-mortar classrooms at a time of high demand but falling budgets.

Three years later, the Online Instruction Pilot Project has become another expensive example of the ineffectiveness—so far, anyway—of once-vaulted plans to widen access to college degrees by making them available online, including in massive online open courses, known as MOOCs.

“We spent a lot of money and got extremely little in return.”
Change is real, but slow – higher education has the opportunity to adjust

- Digital supply of education and new credentials are growing slower than expected, often concentrated in a few fields of study and increasingly integrated in regular educational delivery.
- For many employers the signalling value of qualifications is still important, but they are also considering other evidence of skills and learning.
- Students still seem to have a preference for regular courses and qualifications.
AGAIN, IT’S ALL ABOUT QUALITY
The quality issue is real, urgent and shared

• There are real concerns among employers, students and the wider society about unregulated educational delivery and credentials

• In a digital world, trustworthiness is everything, but traditional forms of reputation provide a vulnerable defence

• Thinking that regular qualifications will gain from distrust in the quality of alternative credentials is short-sighted

• The higher education and quality assurance communities have a shared interest in dealing positively with the quality issues emerging from new realities
Standards and quality frameworks are being developed to address new realities

| Good evidence that the training scheme or micro-credential enables learners to achieve the intended outcomes and purpose |
| Good evidence that the training scheme or micro-credential is made up of components structured in a coherent way to achieve the outcomes and addresses the relevant needs of learners (if applicable) |
| Good evidence that the education organisation has the capability and resources to provide the training scheme or micro-credential |
| Good evidence that the education organisation can manage the impacts of any specific training scheme or micro-credential requirements |
| No significant gaps or weaknesses in the training scheme or micro-credential |
| No significant gaps or weaknesses in the self-assessment report, and/or the underlying capability and resources of the organisation |
| Demonstrable evidence that the learning outcomes and activities match the purpose of the micro-credential |
| Evidence the micro-credential addresses the identified unmet skill needs and is required or supported by relevant industries, employers or communities |
| Evidence that the micro-credential is in addition to current learning, and typically does not duplicate current quality-assured learning approved by NZQA |

## Examples of recent QA frameworks for alternative credentials

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<td>Workload</td>
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<td>Verification of learner identity</td>
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Fundamental challenges remain

- QA should not only look at the institutional supply side, but at the quality of the learning and learning outcomes.
- Coping with the fact that learners combine various routes and practices of learning, formal as well as non-formal and informal.
- Quality of assessment practices and trustworthiness of credentials is becoming a critically important area of work.
- Stronger voice of employers, society at large and learners themselves in QA is to be welcomed.
Thank you!

dirk.vandamme@oecd.org
www.oecd.org/edu
twitter @VanDammeEDU