



18.11.2025 ▶ Ceremonial Hall ▶ University of Copenhagen



novo nordisk foundation

Lifelong Learning and Learning for Long Lives in the age of AI: why this is a strategic imperative for Europe

Geoff Mulgan, November 2025

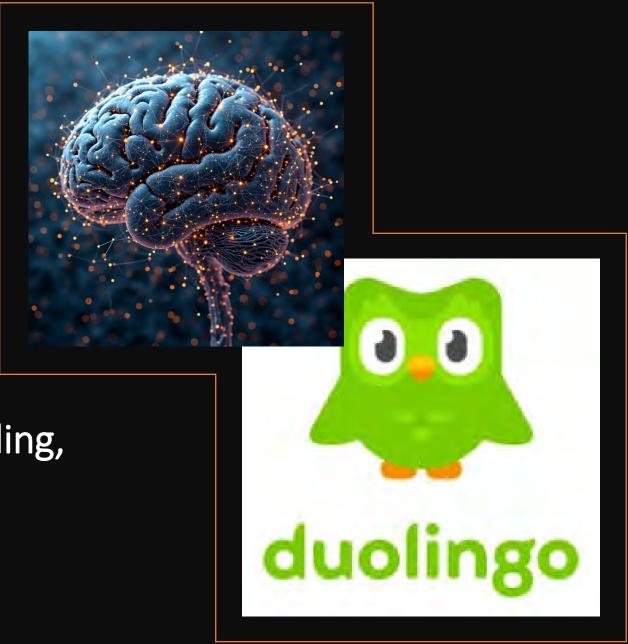
Copenhagen Lifelong Learning Summit



Curiosity and hunger to learn ...

...but laziness and busy lives

So how to make it easy, compelling, hard to give up?



• EU Definition: "All general education, vocational education and training, non-formal education and informal learning undertaken throughout life, resulting in an improvement in knowledge, skills and competences". EU Target: A key goal is for at least 60% of all adults to participate in training every year by 2030.

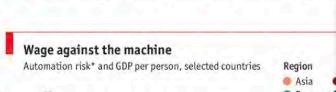
 Many initiatives: Upskilling Pathways Initiative (2016), the Pact for Skills (2020), and the Council Recommendation on Individual Learning Accounts (2022).

WHY?







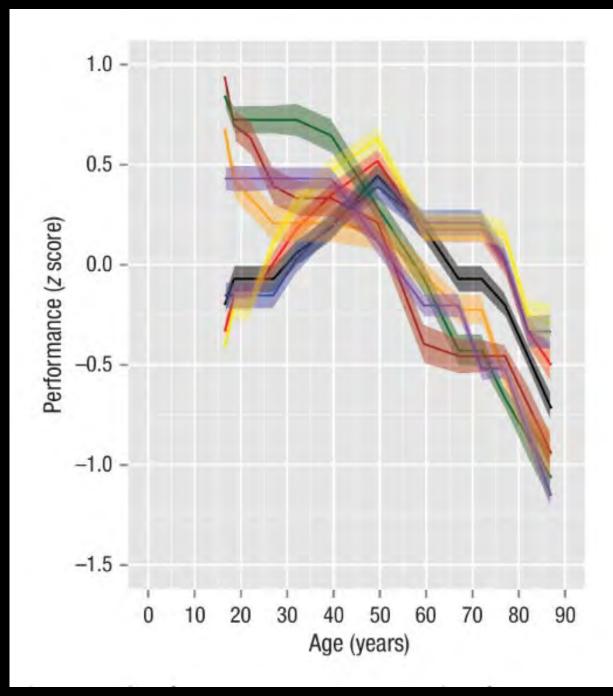




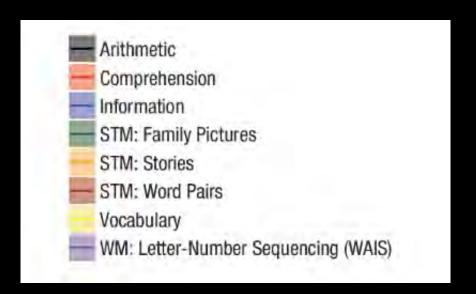


US experts warn AI likely to kill off jobs - and widen wealth inequality

Economists wary of firm predictions but say advances could create new raft of billionaires while other workers are laid off



The rise and fall of cognitive abilities across the lifespan



A positive mindset helps you live longer

Mental attitudes to ageing have a significant impact on health.

Median Survival (years)

Those with :-

- *positive* attitude to ageing 22.5
- *negative* attitude to ageing 15.0

Gain

7.5

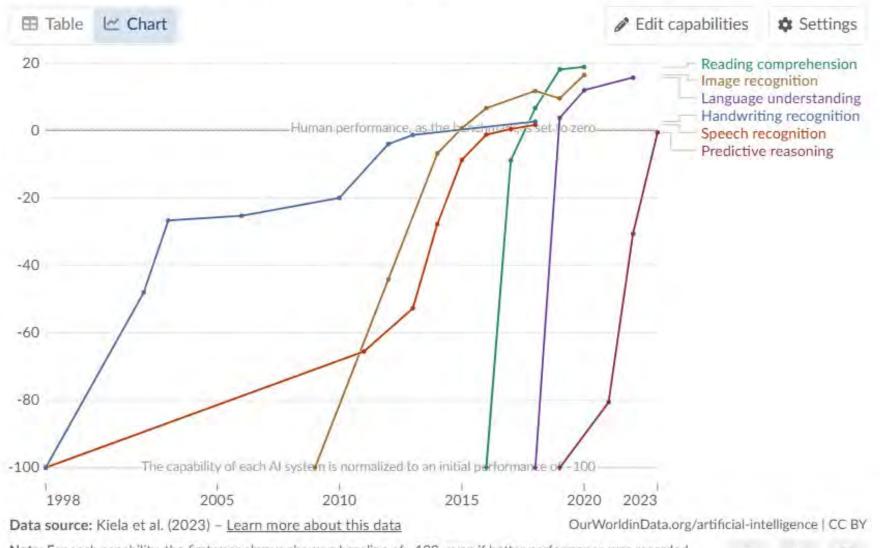
Impressive when compared to improvements in:- Blood Pressure, Cholesterol: Gain 4 years- Obesity, Smoking, Exercise: Gain 1-3 years

'Longevity Increased by Positive Self-Perceptions of Ageing', Becca R. Levy et al, Journal of Personality and Social Psychology, 2002, Vol. 83, No. 2, 261-270

Test scores of AI systems on various capabilities relative to human performance



Within each domain, the initial performance of the AI is set to -100. Human performance is used as a baseline, set to zero. When the AI's performance crosses the zero line, it scored more points than humans.

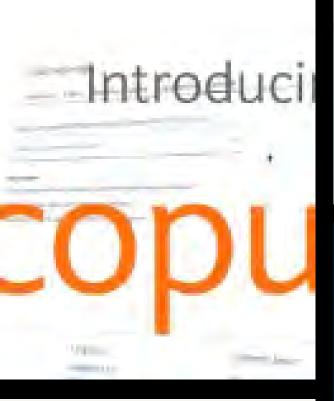


Note: For each capability, the first year always shows a baseline of -100, even if better performance was recorded later that year.

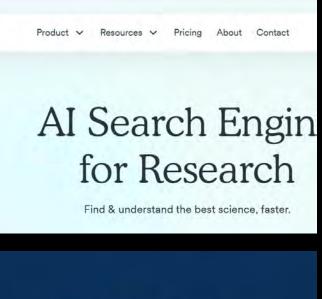










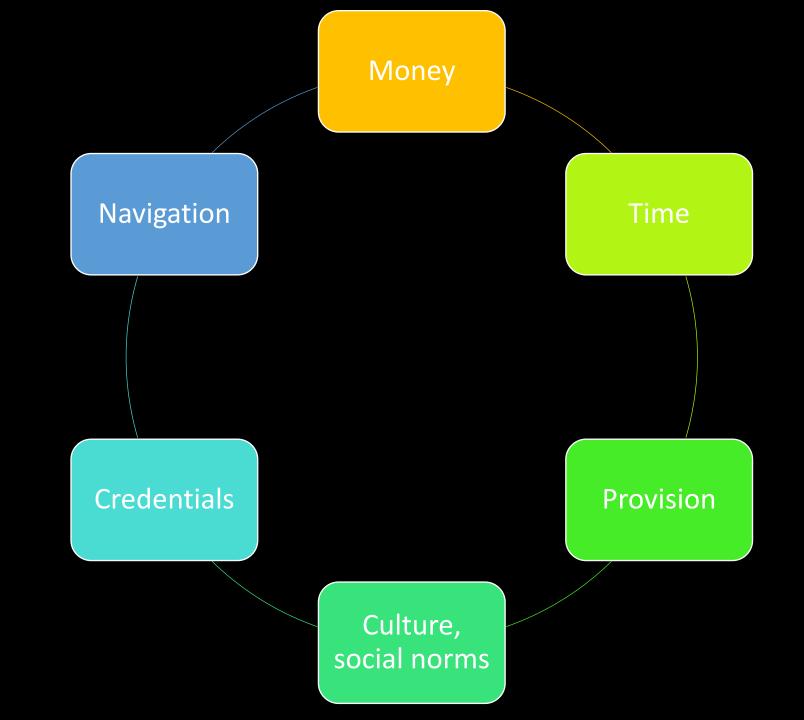




A golden age of tools to:

- Scan, gather and synthesise knowledge
- Describe innovations
- Use different personas
- Offer details on the chain of reasoning
- Propose creative options
- Act as coach, partner

Six essentials for a life learning system in the 2030s:



CULTURE

Many different national cultures and approaches and many motivations – fun, future jobs and better play, curiosity, social life and meeting people, hobbies, culture ...

Distinct national cultures and institutions from Sweden's *Folkbildning* to US community colleges, Japan's big financial support (and Prime Minister-led Council for Designing 100-Year Life Society), to Germany's vocational infrastructure and *ProfilPASS*

UK citizens invest £7.3bn a year into their own learning and £55bn worth of their own time - more than the government and employers combined.







200,000 students

500,000 students at its peak: 4.5m in total

400,000 members in 1,000 local groups

MONEY

- European Credit Transfer and Accumulation
 System (ECTS) for the European Higher
 Education Area
- France: Compte Personnel de Formation (CPF) individual-owned, portable, and accessed via the "Mon Compte Formation" mobile app, which allows users to directly purchase training from a national marketplace
- Canada: Lifelong Learning Plan (LLP) allowing tax free loans from pension investments



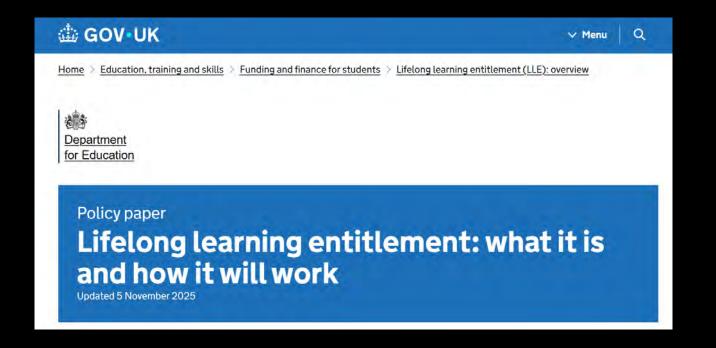
SKILLS future SG

A comprehensive, state-led movement to build a national culture of LLL.

- Combines SkillsFuture Credits with data-driven National Skills Frameworks that map career pathways and identify in-demand skills, helping learners make strategic choices.
- All Singaporeans, aged 40 and above can receive a SkillsFuture Credit (Mid-Career) top-up of \$4,000, from 1 May 2024. Subsequent cohorts of Singaporeans will receive the top-up in the year they turn 40.
- Employment: 55% of unemployed participants in the Career Transition Programme found jobs within six months.
- Wages: Graduates of the Work-Study Programme earned a 6-11% wage premium.
- **SME Engagement:** In 2024, 24,000 enterprises supported employee training; 95% were SMEs, a traditionally hard-to-reach group.

UK – Lifelong Learning Entitlement from 2027

More than 40,000 Euro over the lifecycle for all forms of education





How to use liberated time for learning?

Average working weeks 1800=66 hours; 2020=32hrs

- Life expectancy: 1840=41; 2025=82+
- Both older and younger: average age older than ever; years left to live greater than ever

- 4-day weeks
- Changing retirement ages and phased retirement
- Rights to time off work for training
- Time banks, currencies for skills exchange
- A new volunteer economy
- City time strategies
 (Barcelona to Buenos
 Aires)

PROVISION

An explosion of platforms and tools – but weak learning from evidence (how to sustain learning – tutors, peers, feedback), and now complexity of LLMs









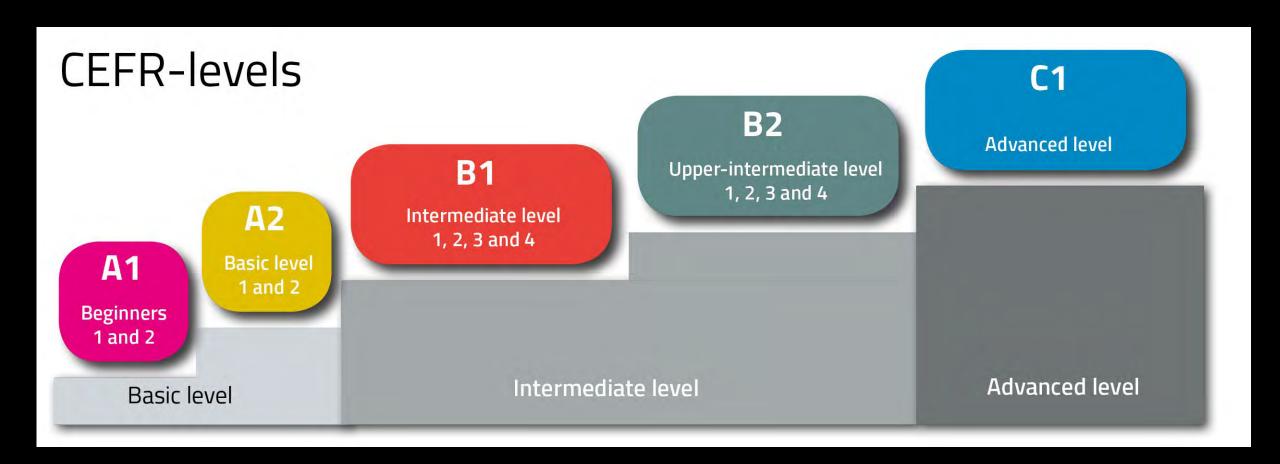
How big a role for universities?

Will the traditional degree at 18-21 survive?

Will universities be able to adapt to LLL – discontinuous, hybrid?

CREDENTIALS

How to make comprehensible – eg Danish Qualifications Framework for Lifelong Learning



Degrees, diplomas, course completion certificates, apprenticeships, professional certificates, badges, MOOCs – sometimes confusing, great for a minority of GenZ, baffling for others



NAVIGATION

Platforms for navigation

 Aim: to capture data on current jobs, skills requirements, pay, geography, forecasts of likely jobs growth, changing skills demands to connect to navigation tools for 15year-olds, 55-year-olds to see best pathways to new skills and new jobs.



empower your employment. For job-seekers, advisers and employers to connect.

My search wizard

areer suggestions to suit you. Input 'type of job' yo



Understand how to get the right job with a personalised coreer action plan broken down. See when to make bigger decisions (GCSE's, apprenticeship, university caraer change) and when you have space for experimenting and reflection. Be nudged and signposted

to make you take your next action and move furthe

My real time suggestions



Future jobs 2030

daily. Tailor these to your desired occupation, lifestyle or dream location - click through to connect to the job advert - and let the future become now













Solution: input skills to see what jobs require similar skills and where to upskill to transfer to her dream; See live jobs adverts and choose knowing your job will be safe in 2030.

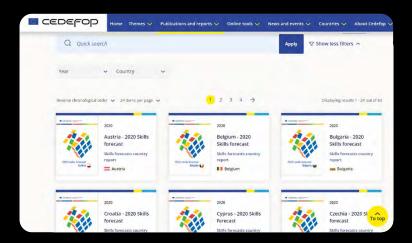
Sarah, 34. Single Mother of 2, personal traine

Problem: juggling busy home life and financial tress. Dreams of an online sports coaching offer Solution: input your skills and dream worklife into the search wizard, and plot your new caree

plot your journey to get there.



- Skills Future Singapore offers some navigation help
- Rapidly evolving platforms in Australia, Canada and elsewhere
- Norway: SkillsPlus (Kompetansepluss) program funds basic skills training delivered at the workplace for adults with low formal qualifications. Free, high-quality, all-age career guidance is a cornerstone of the system











Potential agentic personal support offering guidance on decisions, options, increasingly knowledgeable about preferences, existing skills and aspirations

Money Navigation Time Six essentials for a life learning system in the 2030s ... all in need of vigorous innovation Credentials **Provision** Culture, social norms

INNOVATION

- Innovations needed in all the elements

 finance, provision, navigation,
 platforms, hybrids, existing institutions
- A 1997 report by the President's Council of Advisors on Science and Technology observed that the US was investing less than 0.1 percent of total K-12 expenditures on R&D, as compared to the 23 percent R&D-tosales ratio in the pharmaceutical industry.

INSTITUTIONS

Paul Romer: 'only a failure of imagination, the same one that leads [people] to suppose that everything has already been invented, leads us to believe that all of the relevant institutions have been designed and that all of the policy levers have been found.'

INSTITUTIONS AS A FUNDAMENTAL CAUSE OF LONG-RUN GROWTH

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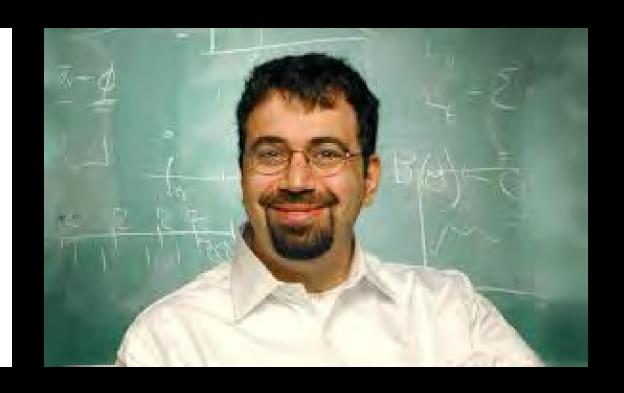
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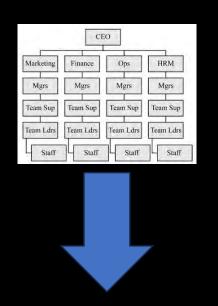
JAMES A. ROBINSON

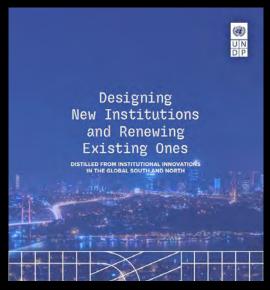
Department of Government, WCFIA, Harvard University, 1033 Massachusetts Avenue, Cambridge, MA 02138

e-mail: jrobinson@gov.harvard.edu

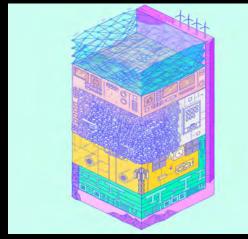


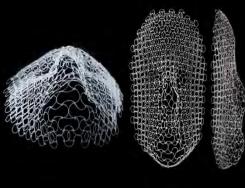
What ... should future public institutions for learning look like in the age of TikTok, Google, ARM, Airbnb, Wikipedia, DAOs?



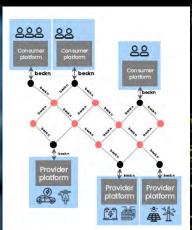








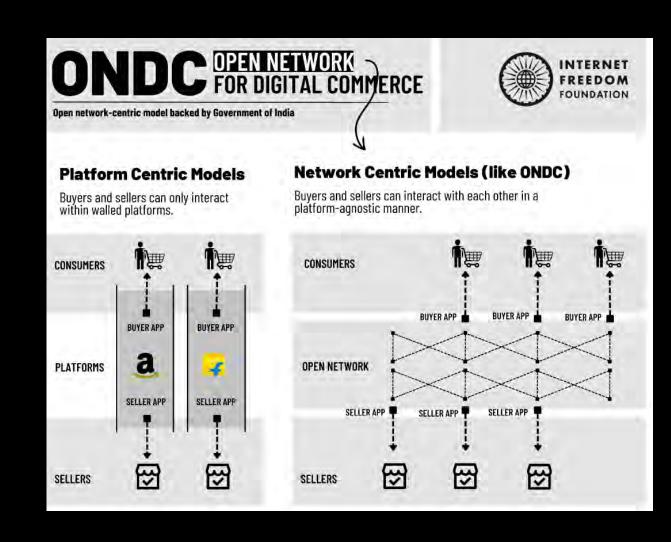






Platform and protocol-based institutions

Like the Internet, new institutions set protocols and rules of interconnection and impose requirements for interoperability, sharing data, use of platforms and APIs. Beginning to be applied to credentials – so individuals can carry their authenticated credentials with them



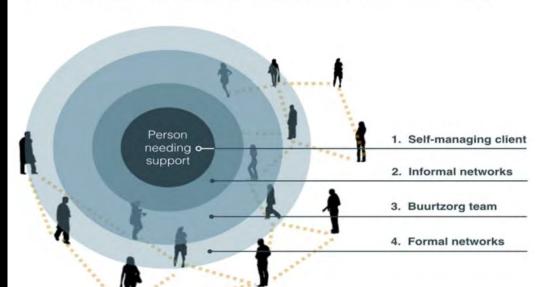
Mycelium-like networked institutions

Multiple entities loosely coupled, providing mutual support, acting both above and below ground (i.e. with both formal and informal networks), highly flexible and resilient.

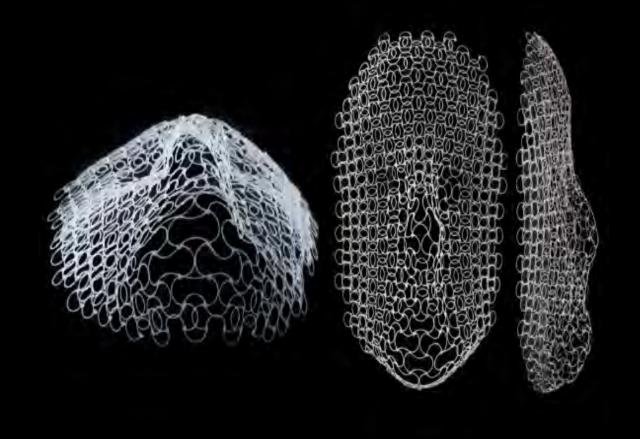


Buurtzorg Onion Model

Buurtzorg works inside out, empowering and adaptive, supportive and network creating.



Mesh structures linking multiple tiers of government, business and civil soceity

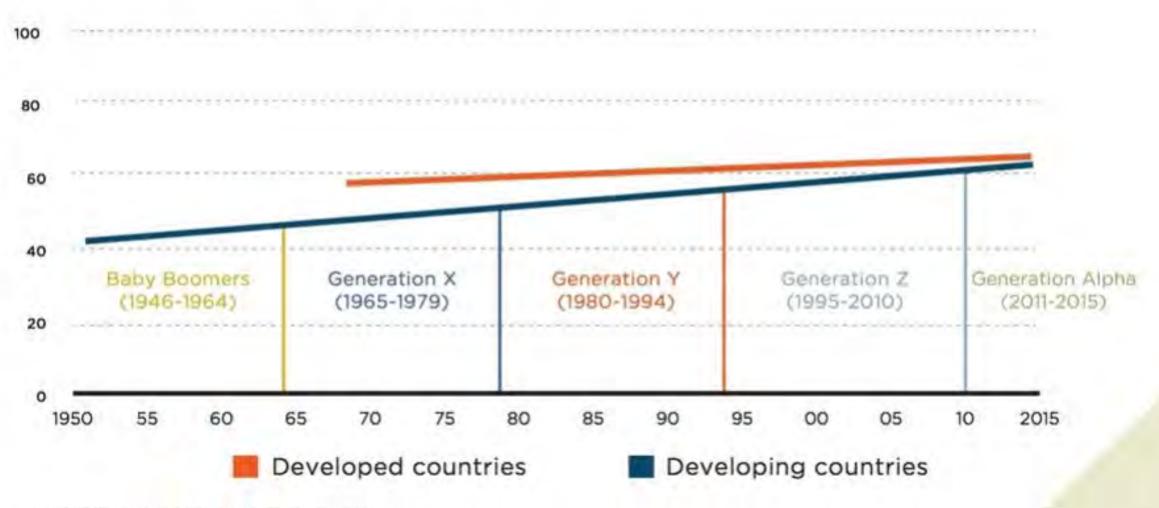


Summary

- Why: ageing, declining birth rates, AI and tech churn, divides between the winners and losers
- What, how and who, including:
 - Funding entitlements for individuals and SMEs
 - Provision multiple forms, timescales, hybrids
 - Credentials micro and macro, in integrated, transferable form
 - Navigation tools continuously updated and supported by agents
 - New institutions, and repurposed existing ones, using stacks, protocols and other methods to orchestrate support

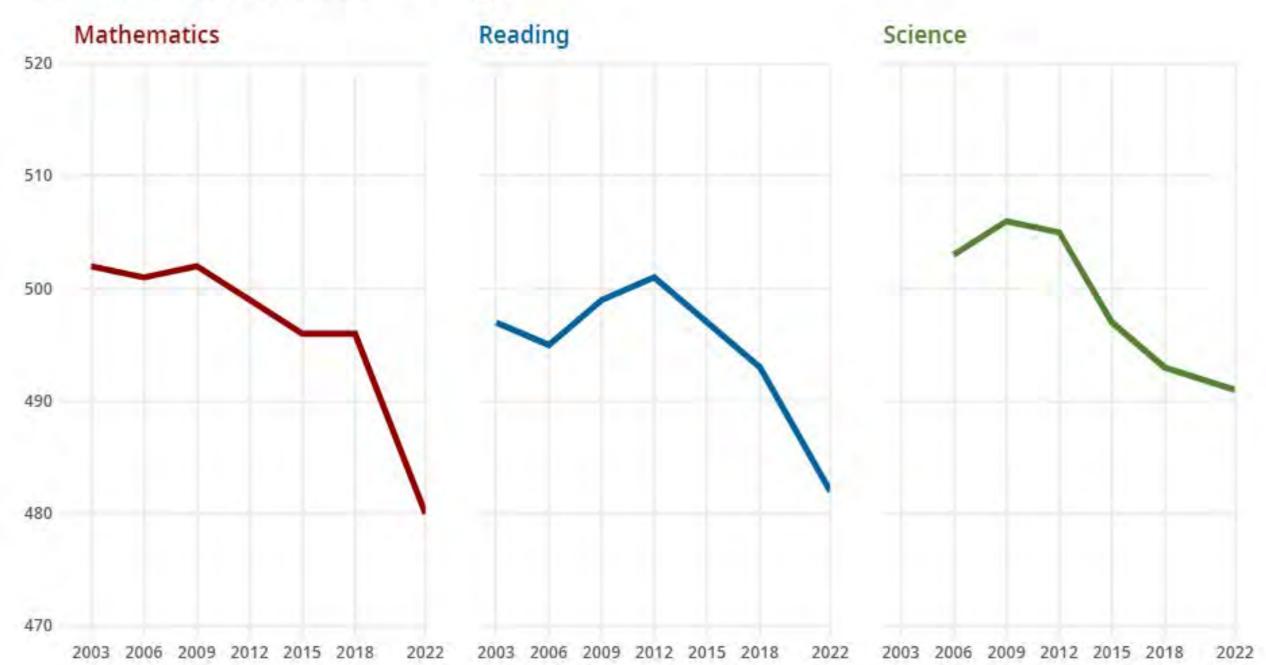
THE FLYNN EFFECT

Improved worldwide IQ test performance

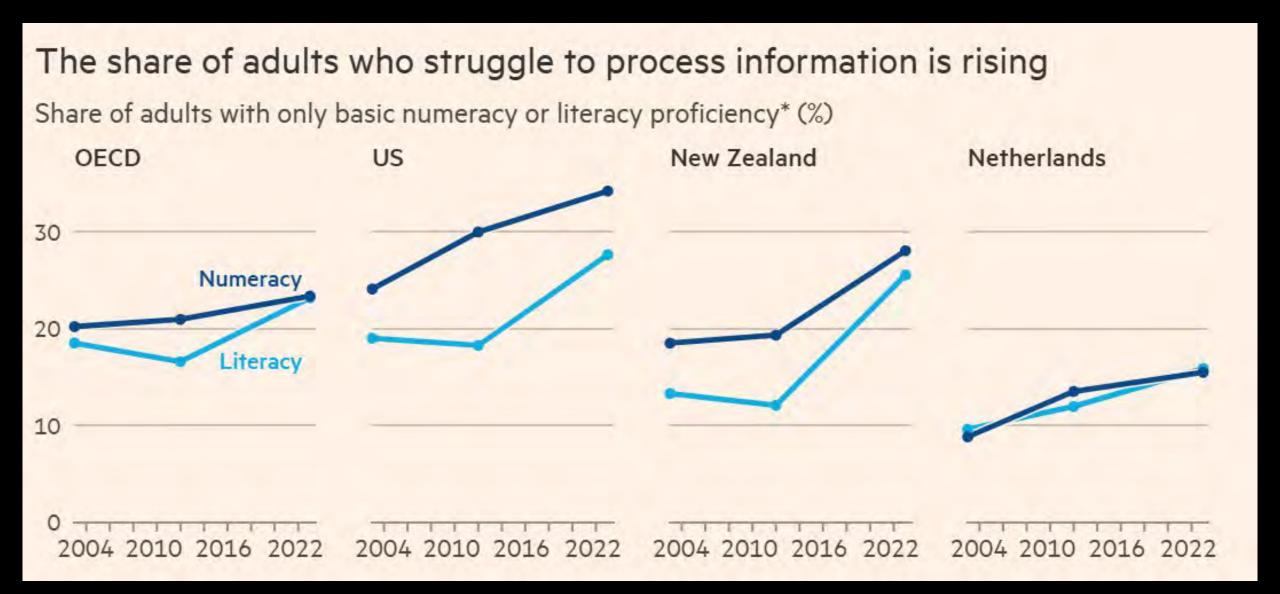


Source: McCrindle Research, 2012. Generations Defined BBC World Service, 2015. Are humans getting cleverer?

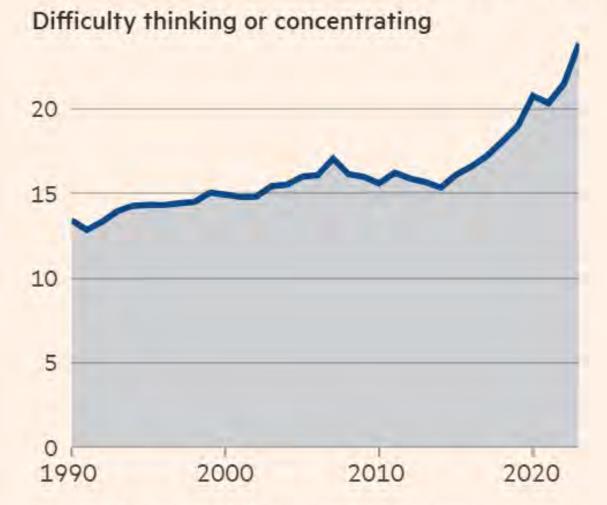
PISA test scores, OECD average



Not able to "use mathematical reasoning when reviewing and evaluating the validity of statements" has climbed to 25 per cent on average in high-income countries, and 35 per cent in the US.



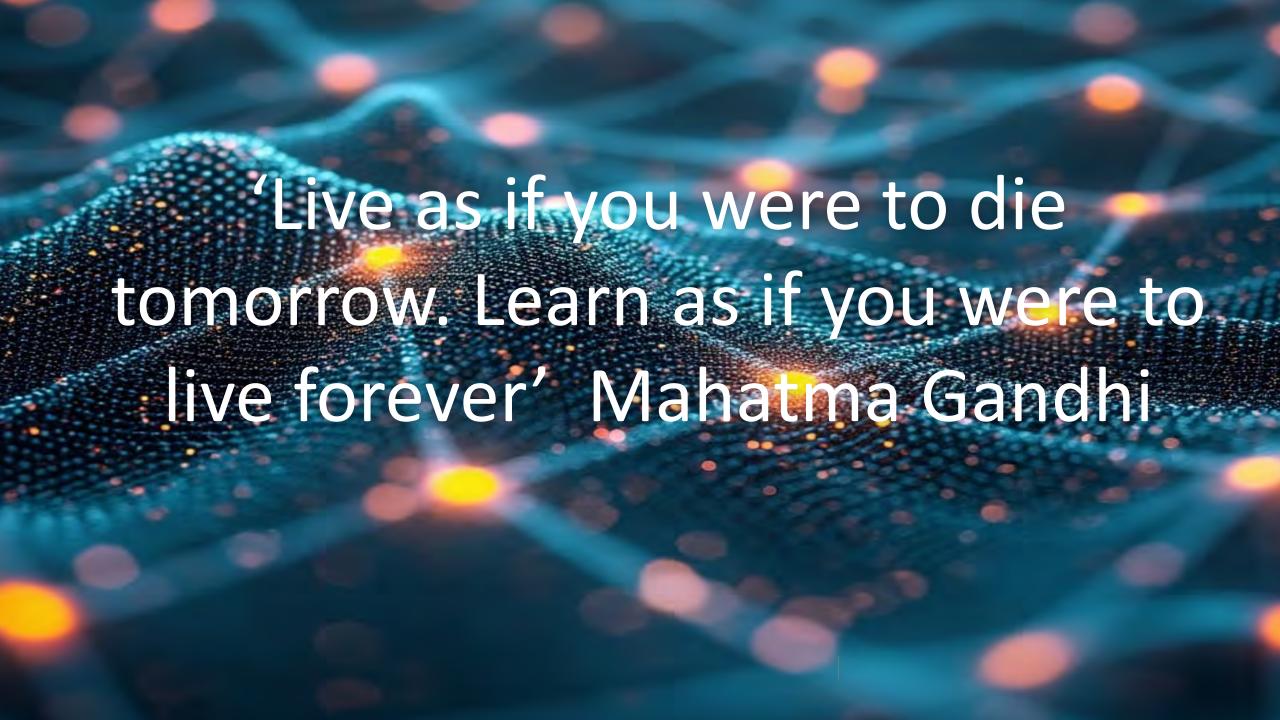
Share of US 18-year-olds who report particular issues on at least 5 of the past 30 days (%)



Source: FT analysis of Monitoring the Future survey FT graphic: John Burn-Murdoch / @jburnmurdoch ©FT

Trouble learning new things











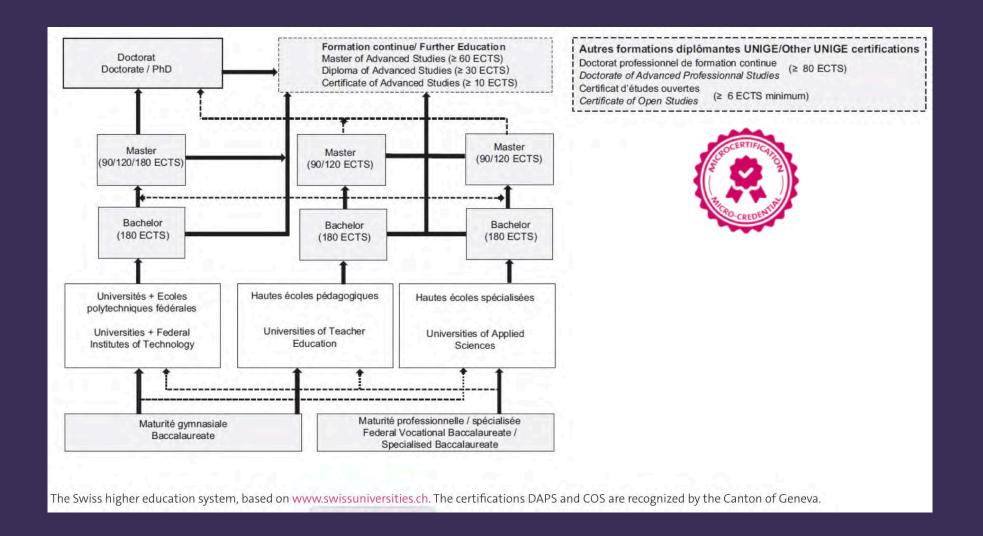
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Micro-credentials – a strategic response to the LLL challenge? challenge? The Swiss experience





Micro-credentials, 'same old same old' in new packaging?





The concept of social responsibility in universities

Historical Development

A concept that has been in more frequent use since the early 2000s (Talloires Declaration 1990, Bologna Declaration 1999, European Commission Communication 2011) - Echoing corporate social responsibility (CSR – a concept dating back to the 1950s)

Community Focus

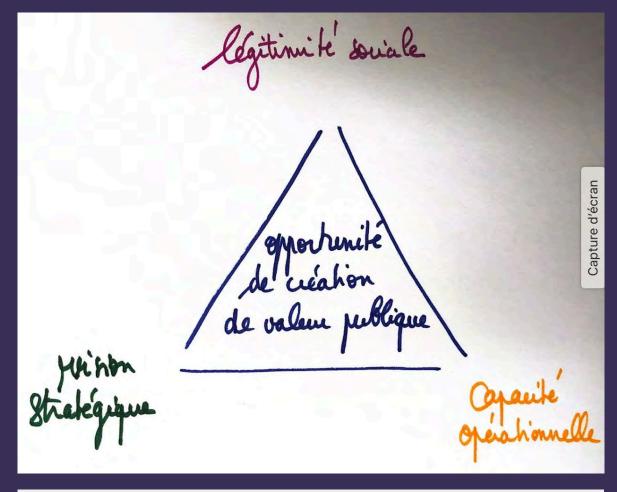
Universities must take into account the needs needs of their communities – both the university communities themselves and the the communities around them – and contribute to meeting those needs

Comprehensive Integration

USR encompasses the integration by universities of economic, social and environmental concerns into their activities activities and relationships with all stakeholders with whom they interact



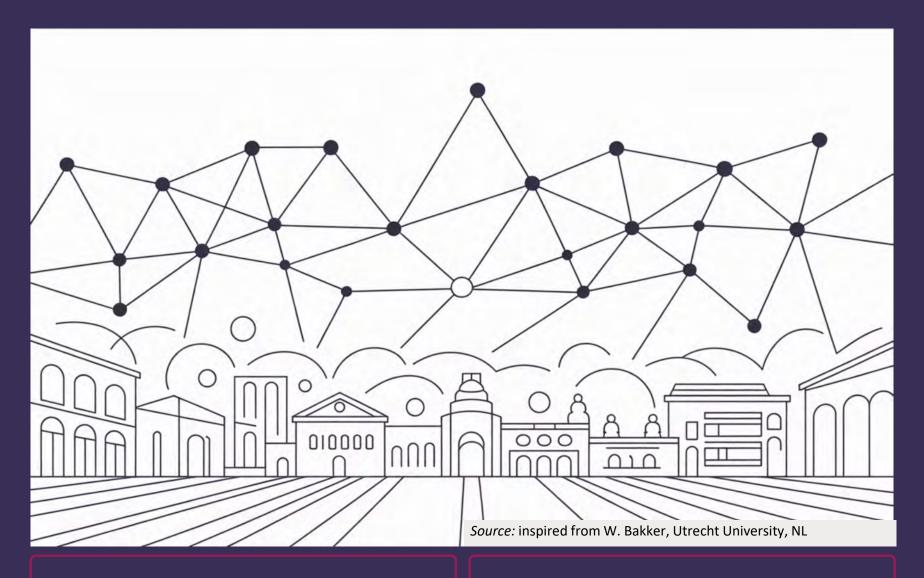
Creating Public Value



Source: D'après M. Moore, Creating Public Value 1997



Understanding the ecosystem



Knowledge and Skills Intelligence

The ecosystem can provide information on the knowledge and skills needed to needed to meet economic and social challenges.

Multi-Level Engagement

National/regional/local and/or sectoral level.

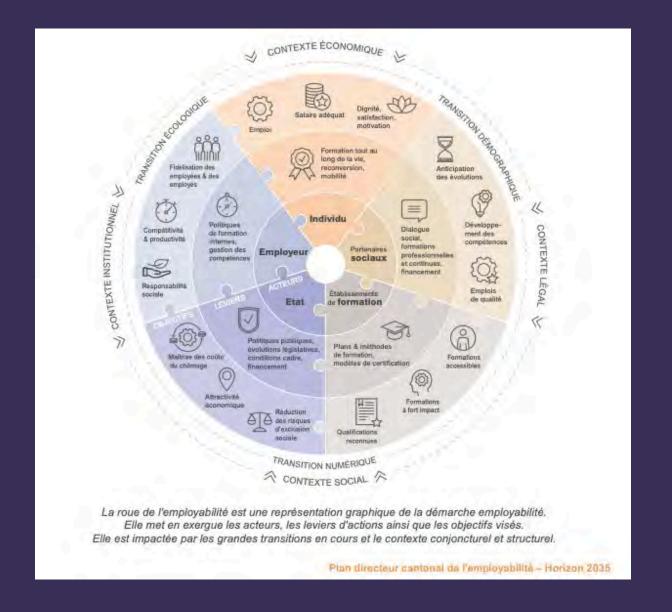


Mobilising the Geneva ecosystem around employability

According to the ILO, employability refers to 'the ability of each individual to find and keep a job, to progress at work and to adapt to change throughout their working life'

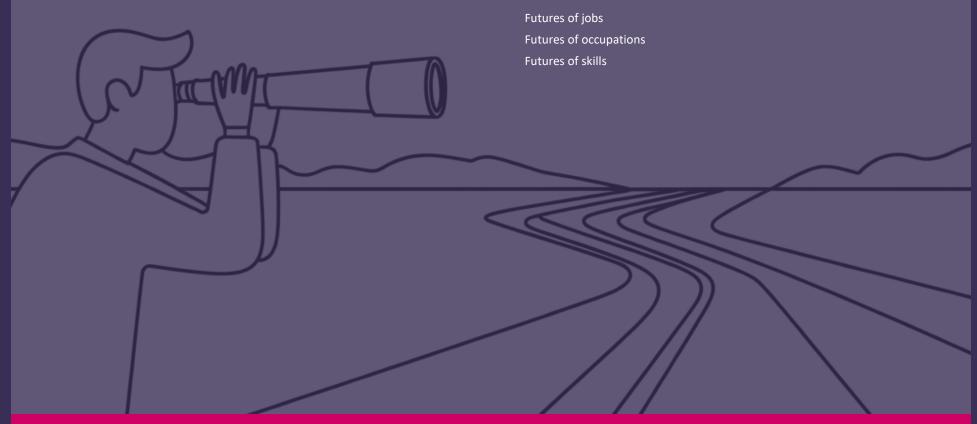
An old concept that has regained relevance since the world of work has been subjected to the pressure of several major major simultaneous transitions: demographic transition, digital transition and environmental transition – the issue is no longer issue is no longer just job creation/destruction, but also skills shortages/obsolescence







Prospective analysis of the external environment





Méthode OPTIC

Orchestrer la prospective des métiers et des compétences pour agir aujourd'hui

ÉCRIT PAR

Nathalie Delobbe, en collaboration avec Kevin Boti, Damien Brochier, Sabrina Cohen Dumani, Bryan Emmenegger, Sophie Huber et Giorgio Pauletto*

EN COLLABORATION AVEC

45 professionnels membres de la plateforme interentreprise de la Fondation Nomads et de la Prospective Emplois et Compétences de 4 pays

EDITION SPÉCIALE

Les 10 ans de la Fondation Nomads

*Les co-auteurs apparaissent par ordre alphabétique



Formulating a response: a new certification format

Definition

A microcertification is a document (digital format) that certifies the knowledge, skills and competences acquired following a short training course. It is neither a diploma nor a qualification.

Assessment Standards

These skills will have been assessed against clearly defined, transparent criteria importance of a framework (national/European) specifying the levels

Quality Assurance

They are supported by quality assurance in accordance with standards standards agreed within the sector or field of activity concerned. concerned.

Flexibility

They may be stand-alone or combined (stacked) to form more more extensive certifications.

Purpose

Training courses leading to micro-certifications are designed to meet societal, personal, cultural or labour market needs public policies related to education, the labour market, employability and social rights

European Framework

Council Recommendation on a European approach to microcredentials for lifelong learning and employability of 16 June 2022





MICRO-CREDENTIAL

The University of Geneva is a Higher Education Institution recognised by the Swiss Government. It is accredited according to LEHE (Quality Assurance for Higher Education Institutions by federal law)



has successfully completed the module

Clinical Trials Conduct and Close-Out

of the Diploma of Advanced Studies (DAS) in Management of Clinical Trials

Format: short course (formal education)
Duration: 24 teaching hours over 3 days
Number of ECTS credits: 2
Mark: 5.75

Domaine: Clinical Trial Management: Conduct and close-out EQF Level: Level 7

Language: English

Conditions of admission:

Holders of a university master's degree or doctorate in science, medicine or pharmacy or a qualification deemed equivalent; or a bachelor's degree in nursing from a Swiss University of Applied Sciences or a qualification deemed equivalent or professional experience deemed equivalent by the programme directors.

Teachers: Aude Chevalier, Audrey Duflot, Lorraine McDowell, Marion Genoulaz Dr Niloufar Marsousi, Marie Mellody, Dr Cécile Nicolas-Denizou

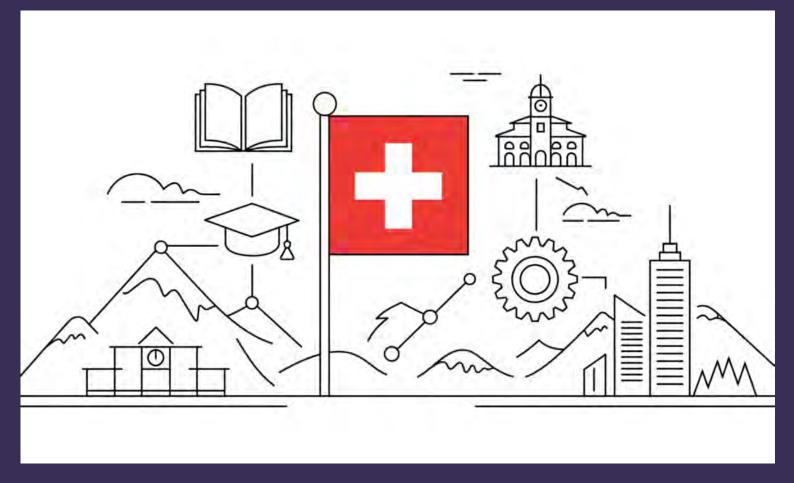
Type of assessment: supervised, with identity check
Assessed by: the teachers
Format of assessment: MCQs
Grading scheme: Swiss system out of 6, pass mark: 4

Geneva, 1 April 2025

Prof. Youssef DAALI Programme Director Faculty of Medicine

CONTINUING EDUCATION

History of adoption in Switzerland since 2022





Micro-credentials at the University of Geneva

Vie de l'UNIGE

Les microcertifications se développent à l'UNIGE

L'Université de Genève étoffe son offre avec des formations courtes et flexibles qui aboutissent à un certificat.





Micro-credentials are being developed at the University of **Geneva.** The University is expanding its offer with short, flexible programs that lead to a certificate.



Des «microcertifications» comme solution contre la pénurie de personnel

Les certificats liés à des formations courtes, plus accessibles que des cursus longs, gagnent du terrain en Suisse. Mais des critères communs sur leur qualité manquent encore

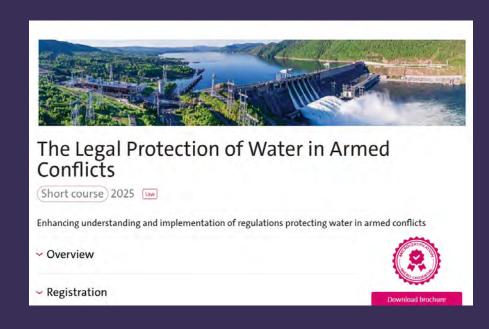
Micro-credentials as a solution to staff shortages. Certificates linked to short, more accessible programs than full degree courses are gaining ground in Switzerland. However, common quality criteria are still lacking.



The University has recently started offering short programs of a few days, culminating in a micro-credential. This new approach is attracting the interest of employers.



Micro-credentials at the University of Geneva







Challenges ahead



Critical Questions for Implementation

Ecosystem Input

To develop MC, higher education institutions institutions need input from the ecosystems ecosystems around them

Structural Complexity

Variable geometry ecosystems? Interlocking Interlocking ecosystems?

Learning by doing

How long will be still be allowed to fail our way forward?

Mobilisation Requirements

An ecosystem must be mobilised at a given given time by a legitimate and authoritative authoritative actor

Evolving Dynamics

The positions, interests and needs of the actors constantly change their investment in the ecosystem

Sustaining Momentum

The dynamic must be maintained

Internal Negotiations

Don't forget the internal negotiations within each actor (double-level games)









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10 key challenges and implications for life-long learning

Chronic diseases and multimorbidity

Care needs and caregiver roles

Mental health, loneliness and identity

Inequity, the aging gap, and diversity

Aging across the life-course situated in context

Cities, housing and communities

Technology and digital inclusion

Working life, pension and life transitions

A sustainable welfare state – hands, money and priorities

Resources, representation and engagement



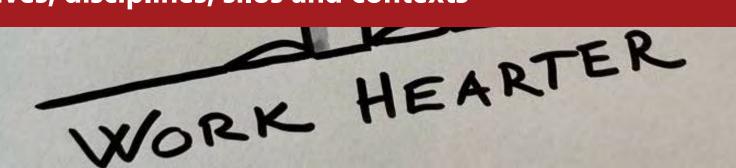




How might we..?

Collaborative, research-based and curiosity-driven lifelong learning rooted in complexity across policy and practice

Bridging perspectives, disciplines, silos and contexts





.

Mission lab on healthy aging – co-design for lifelong learning

Mission Statement

Udfordringen er, at der er færre offentlige ressourcer samtidig med en stigning i antal af Kernen i udfordringen og mission? borgere i aldersgruppen; borgere som har behov for at blive anerkendt som en heterogen gruppe med mange muligheder, ønsker, ressourcer og et diverst problemkompleks På samfundsniveau er risikoen, at samfundskontrakten i velfærdsstaten knækker, fordi ældre Hvad står på spil? borgere ikke får anerkendelse eller nødvendig støtte og den sociale ulighed i gruppen stiger. For den enkelte står en meningsfuld, økonomisk tryg og værdig alderdom på spil. Nødvendige kompetencer? På tværs af både ældre mennesker selv, pårørende og professionelle omkring ældre mennesker er der brug for en række forskellige kompetencer. Fælles for dem er, at de er adaptive, dvs. at man opøver evnen til at tilpasse sig sin situation og kontekst. Desuden peger panelet på vigtigheden af højt fagligt niveau inden for de professionelle i berøring med ældre og evnen til fx at kombinere tekniske og medicinske fagligheder med relationelle kompetencer Muliggørende faktorer og "Den grå seks-part": NGO'er, det offentlige, faglige organisationer, uddannelsesinstitutioner, arbejdsgiverorganisationer og forskningsinstitutioner bør gå sammen om at lave forskellige infrastruktur? former for formater af uddannelser, der skal spænde fra læring i forhold til den enkelte ældre, familie og netværk omkring den ældre til de professionelle, der arbejder med ældre og alderdom. Det betyder mange forskellige formater, lige fra frivillige kurser til professionel efteruddannelse. Fælles for dem er fleksibilitet og at de har forbindelser til samtaler i seksparten. Idéer til livslang læring? Fælles for mange konkrete ideer til kurser var, at det skulle tage udgangspunkt i de gamle selv - fx med aldringsuge, borgermøder og praksisnær kompetenceudvikling. Desuden med udgangspunkt i løbende dialog mellem medlemmer af "den grå seks-part", der kan arbejde med konkrete behov for forskellige grupper.

Nordic Welfare Center

Københavns Professionshøjskole

Københavns Kommune

Fonden Ensomme Gamles Værn

Slagelse Sygehus

Fonden Ensomme Gamles Værn

RUC

OsloMet, Norge

Plejecenter Rudersdal kommune

Nordisk Netværk for Livslang Læring

Danske Seniorer

Lægeforeningen

Ingeniørforeningen i Danmark (IDA)

Videnscenter for velfærdsteknologi SOSU H

Eden Danmark

Danmarks Jurist- og Økonom Forbund

Ældresagen

Danmarks institut for Pædagogik og Uddannelse

Ældreministeriet

Center for Videreuddannelse og Livslang Læring

Københavns Universitet











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