Innovative applications of technologies in industry-university collaboration to prepare for the future of work

Submitted for Consideration for Inclusion in the:
Decision Analytics and Service Science Track

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Innovative applications of technologies in industry-university collaboration to prepare for the future of work

MINI-TRACK – "Innovative applications of technologies in industry-university collaboration to prepare for the future of work" will offer studies of innovative technology-enabled applications and solutions for continuous learning, upskilling and particularly industry-university collaboration in response to the changing future of work

and digital Era. Led by Maarit Palo, IBM Research, Global University Programs Northern Europe, Dr. Taina Eriksson, Research Director, University of Turku, Dean Professor Adam Smale, University of Vaasa, and Dr. Jim Spohrer, ISSIP.

HICSS 56 – 2023

This mini-track is offered at HICSS 56 for inclusion in the Decision Analytics and Service Science Track as Innovative applications of technologies in industry-university collaboration to prepare for the future of work

DESCRIPTION OF MINITRACK:

The purpose of this mini-track is to invite studies of applications of technologies (such as AI and analytics) in the domain of industry-university collaboration for meeting emerging requirements of future work and upskilling the workforce.

The future of work is a widely debated topic, and there appears to be agreement that the requirements for workers will change even dramatically. Work changes in complex ways as there are developments in: the contents of work, task-specific skills, meta-skills, work environments and work modes (Unkila, 2021). The change is more profound than the incremental societal changes we have witnessed during past decades.

There will be an increasing need for T-shaped upskilling - with depth and breadth - with lifelong learning plans or individual learning plans from high school through multiple jobs and careers in the AI and Digital era. Most future jobs will be in the knowledge/tech-intensive service sector of the economy, as well as entrepreneurship for next generation local green agriculture, manufacturing, and traditional service sector professions and shops, including healthcare, government, transportation, communications, entertainment & hospitality, finance, investing, and real-estate, (Moghaddam, Demirkan, Spohrer 2018; Gardner, Marietta 2020)

In this era of uncertainty, complexity and disruptive changes, companies need to discover new ways of ensuring that they have the skills and capabilities to thrive. The Future of Jobs Report 2020 highlights that skills gap continues to be a challenge, since the in-demand skills are changing across nearly all jobs. According to the report, companies estimate that around 40% of workers need reskilling or upskilling of up to six months. In fact, there is a need for continuous upskilling and reskilling.

On the other hand, most higher education institutions need to solve how to provide students with the necessary skills based on existing faculty competences and budget constraints that limit possibilities to invest in technology infrastructure. There is thus a need within higher education to turn to innovative, quick and scalable solutions to close the skills gap across a variety of curricula.

Thus, there are considerable challenges to be solved in collaboration between industry and the academia. Moreover, there is certainly underutilized potential in industry-

university collaboration for upskilling and reskilling. Building on existing collaboration models, novel technology applications offer possibilities for leveraging this potential. One question is also how technology will transform the role of scholars (researchers) and educators (faculty), and the need for more industry collaboration and both side learning to invest in the future of learning and work collaboratively (Spohrer, Maglio, Vargo, Warg 2022, forthcoming).

We are looking for studies on existing solutions in the aforementioned domains and the potential of applying technologies for continuous learning through industry-university collaboration.

We encourage papers that report on lessons learned, on topics which include, but are not limited to, the following:

- Novel solutions (AI, analytics, digital platforms) in university-industry collaboration for upskilling
- Addressing different challenges with university and industry collaboration
- Applying AI, BI and analytics in education in innovative and novel ways; with particular focus on university-industry collaboration
- Use case examples where universities and industry have worked together for education impact and digital transformation
- How knowledge and skill development can be formally recognised among education institutions and employers amidst the rapidly expanding area of microcredentials
- Innovative use of enabling technologies in upskilling the workforce
- How university can support industry (e.g. in the context of continuous education in non-technology-based organisations) closing the skills gap, as well as how industry can support university (e.g. technical expertise, platforms, tools and co-creation of curricula) in closing the skills gap
- Sophisticated metrics and ROI examples relevant in developing industry-university collaboration
- Next generation of strategic innovative partnerships with universities and industry

Potential contributors include, but are not limited to:

- Teachers who are working with technology firms or individual experts in the design of their course/programme curricula
- Technology experts from industry that are co-creating curricula with teachers in higher education
- Specialists in continuous education that are developing microcredentials around analytics skills
- Deans/Rectors with responsibility for education that have created strategic partnerships with industry

Marketing Plan

We plan to solicit and promote papers in many ways IBM internal and external global communication channels, University of Turku, University of Vaasa place to be described more detail here – and also how we market nationally and European, globally in different groups we are engaged here. Some examples are that the mini-track will be promoted among faculty members in universities worldwide via IBM Global University Program channels and as well as via IBM Research channels. We will also use the ISSIP newsletter and social media.

Brief Biographies:

Taina Eriksson works as Research Director at the Laboratory of Business Disruption Research at University of Turku. Her research topics focus on business transformations, innovation management and dynamic capabilities. She has over 15 years of experience in academic research in the intersection of international business and strategic management. Most of her research career she has actively collaborated with different kinds of business organizations and is engages also in interventionist research.

Adam Smale is a Professor of Management at the University of Vaasa, Finland, where he is currently serving as Dean of the School of Management. He is leading various business studies accreditation processes and has sat on several accreditation panels. His research interests lie in human resource management, talent management, and careers in cross-national and multinational corporation settings. He has also co-authored a best-selling teaching case on global talent management (available via www.thecasecentre.org). He sits on the Editorial Board of Human Resource Management Journal and is a member of several international research collaborations including GLOBE (https://globeproject.com), 5C (https://5c.careers) and Cranet (https://cranet.la.psu.edu).

Thomas Westerholm works at Åbo the Akademi University (www.abo.fi) as Planning and Strategy Officer. One of the current key strategic activities led by him is developing the industry-university collaboration, which includes, for example, testbeds for piloting and researching implementation and adopting of new technologies. He has 30 years of experience in business and organization development, digital transformation, and strategic development and management. He has worked in large, international companies, as an entrepreneur in start-ups, in consulting as well as in academia.

Jim Spohrer – ISSIP update here. He led IBM Global University Programs, co-founded Almaden Service Research, and was CTO Venture Capital Group. After his MIT BS in Physics, he developed speech recognition systems at Verbex (Exxon) before receiving his Yale PhD in Computer Science/AI. In the 1990's, he attained Apple Computers'Distinguished Engineer Scientist and Technologist role for next generation learning platforms. With over ninety publications and nine patents, he received the Gummesson Service Research award, Vargo and Lusch Service-Dominant Logic award, Daniel Berg Service Systems award, and a PICMET Fellow for advancing service science.

Maarit Palo works in IBM Research and leads IBM's Global University Programs in Northern Europe. She is partnering with universities and research to help prospering the digital age, enable next generation skills and to help transform with new technologies. She has worked in the IT industry for over 30 years and have extensive experience from several industries with broad experience in technology, consulting, sales and business development. Prior to joining IBM Maarit worked in insurance and finance industries. Maarit earned her MBA from the Open University UK, London.

Conference Travel Arrangements:
Our organizations endorse our involvement, and they will pay our travel and registration costs to attend HICSS.

References:

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