

New Paradigms of Learning: Partner and Prevail

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PREMISE

• Current university and industry partnerships tend to be based on collaborations that do not challenge the current practices of the partners.

 Yet, challenging this constraint can lead to beneficial reimagining of the current educational paradigm.

OBJECTIVE

•Encourage our panel and audience to use Partnerships as an opportunity to reinvent the current learning paradigm and the traditional roles of university, industry, and government.

LET'S CONSIDER FOUR EXAMPLES

Let's consider grading:

 What if grading of a course was done by industry/government, reflecting the student success in implementing in the real world the material learned in the course?

Let's consider scheduling:

•What if, instead of the traditional academic schedule and blocking time for internship, a new learning-driven schedule was developed to optimize the learning <u>and</u> implementation of the material?

Let's consider the source of knowledge:

 While historically it is believed that the advances in science and technology are by the universities and industry is the implementers, increasingly in a number of scientific and technological fields, industry and especially the research labs of leading companies or innovative startups are the true inventors.

 What if the partnership reflected this role reversal and what are the implications to our educational paradigm?

Let's consider the role of faculty:

- What if the traditional faculty-centered education was changed to student-centered, having:
 - a. 24/7 access to conversational AI digital instructors with all the validated global knowledge, and
 - b. the faculty as the facilitators of learning and implementation.
- This will require partnerships with conversational AI companies, gaming companies and content experts to train the AI system. It will also require faculty with new roles and skills.

NEXT STEPS

 Are you interested in exploring the value and potential impact of such reimagined partnerships or others?

- What will it take to reimagine your next university- industrygovernment partnership and lead to breakthrough experiments with:
 - New ways of grading
 - New learning-driven scheduling
 - oKnowledge generation by both university, industry and others
 - Shifting to student-centered 24/7 conversational AI digital assistant and faculty in their new roles



New Paradigms of Learning: Partner and Prevail

...to meet changing employer needs

Nunzio Quacquarelli, President, QS



Educators needs to listen and respond to the needs of employers as they change through the 4th Industrial Revolution

"there is a fundamental mismatch between the output of higher education institutions and the needs of technology companies......

.... We are looking to work with universities to bring about change."

Anthony Salcito, Head of Education, Microsoft, At Wharton – QS Reimagine Education Conference, 2018



QS Global Employer Survey - provides unique insights

Total survey - responding employers in 2022 results

>75,000 respondents

Of which:

Global Skills Gap

>26,000 respondents

Emerging Fields of Technology

- 7,736 respondents

(54% Directors, 40% C-Suite)





ngineering 7.5% Education 7.1% inance 6.6% lealth / Medical 4.9% Pharma / Biotech 4.0% Energy / Environment / Utilities 4.0% Government / Public sector 3.9% Real Estate / Property 3.5% Non-profit / Charity 3.5% HR / Recruiting / Training 2.2% etail / Wholesale 2.2% Media / Advertising 2.1% gistics / Transportation 1.9% ntertainment / Leisure 1.8% Telecoms 1.7% Hospitality / Travel / Tourism / 1.7% Metals / Mining 1.1% Defense / Security / Rescue 1.0% Science 0.5% riculture / Fishing / Forestry 0.3%

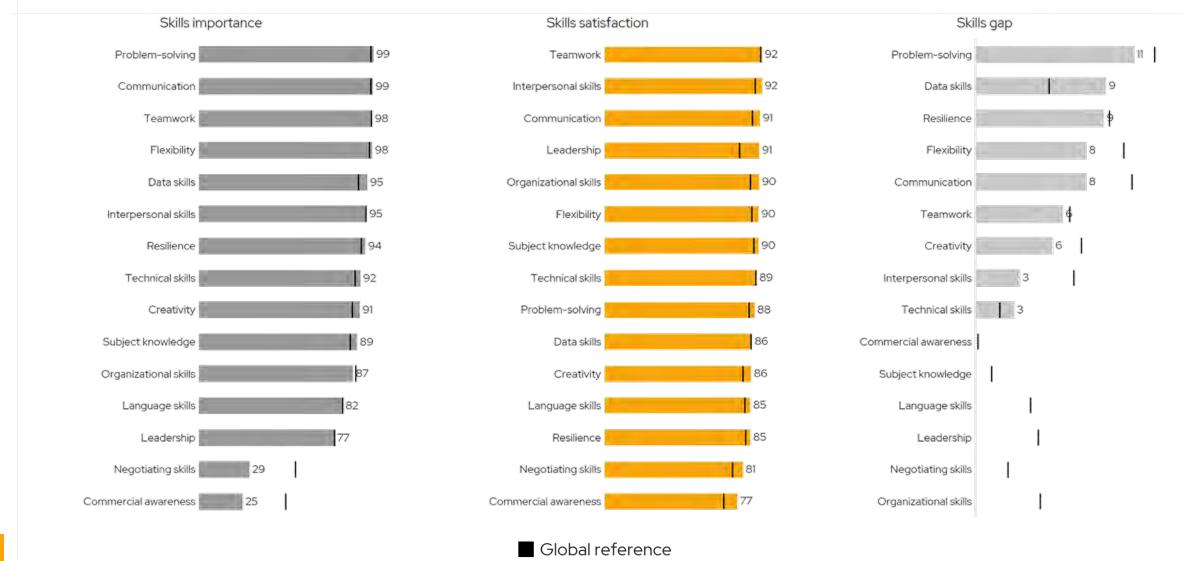
EMPLOYERS BY INDUSTRY

echnology 9.8%

Consulting 9.3%

lanufacturing 7.7%

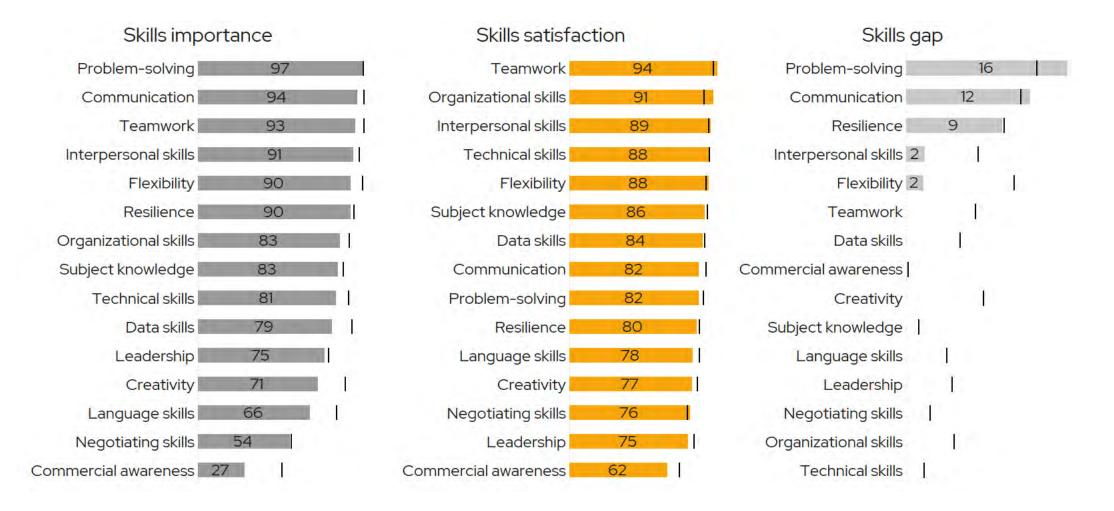
Skills Gap in the United States vs Global





Source: QS Global Employer Survey 2022

Skills within the Defence industry



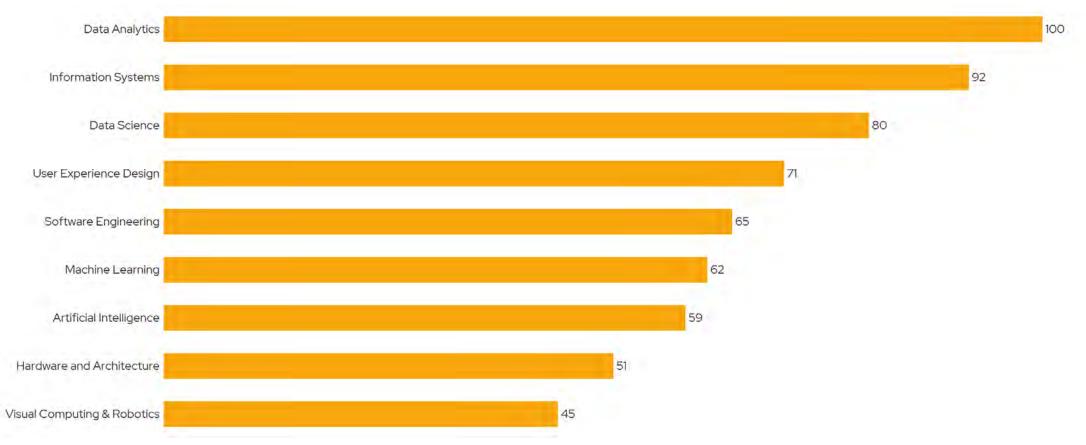


Source: QS Global Employer Survey 2022 – 16 1 respondents

Emerging fields of Technology

Please rate the importance of the following technology fields to your organization:

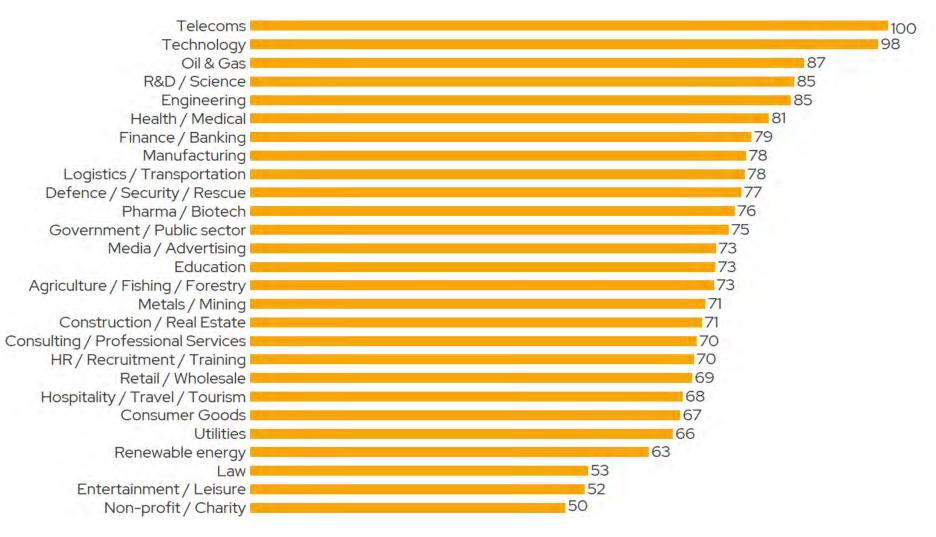
Global scaled results for importance attributed to emerging fields of technology





Emerging fields of Technology

Industry breakdown of scaled results for importance attributed to emerging fields of technology

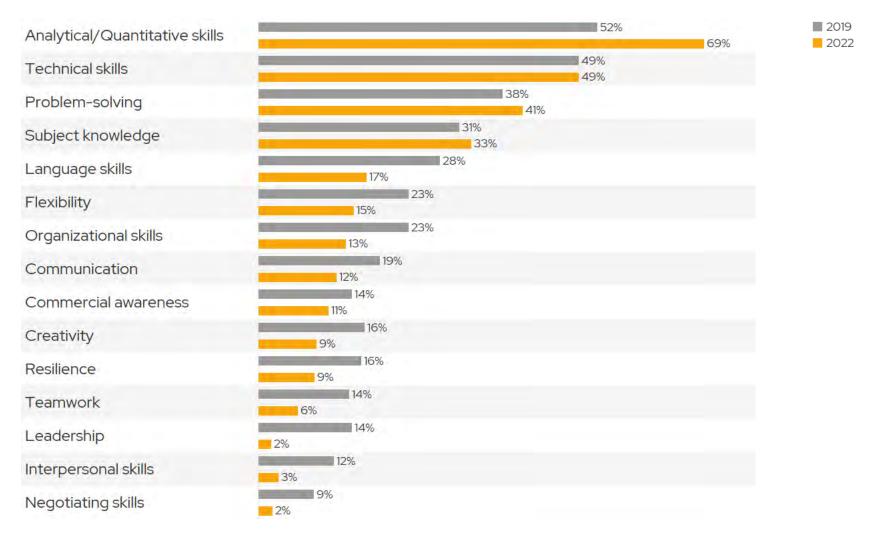




ARTIFICIAL INTELLIGENCE

Which graduate skills do you think artificial intelligence will be capable of outperforming humans in by 2030?

Breakdown by responses in North America





Which institutions are partnering &prevailing?

- Which institutions and courses are doing a good job in meeting the global and emerging skills gaps?
 - →QS rankings and research look to answer these questions
 - →QS Global Employer Survey will monitor the success of HEIs in responding to the AI revolution to meet employer needs
- Which partnerships can accelerate solutions for the key skills gaps?
 - → Wharton QS Reimagine Education Awards has a new award categories to identify game changers?
 - Future of Work: Nurturing Employability
 - Future of the University: Best Partnerships
 - Future of Learning: Best use of AI









UNSW Canberra Learning and Teaching Day August 2022

ASU Charter

ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.



#1 in the U.S. for innovation ASU ahead of MIT and Stanford



#1 in the U.S. and
#9 in the world
for global impact
in research,
outreach and
stewardship.

- Times Higher Education, 2021

Top10
in the nation among universities granted U.S. patents

U.S. National Academy of Inventors and the Intellectual Property Owners Association, 2021

140,759

students enrolled at ASU for fall 2022, a university record

5,871 headcount increase (4.4% total enrollment increase) from fall 2021

- U.S. News & World Report, 7 years, 2016-2022

#6
in the U.S.
for total research
expenditures

among universities without a medical school

National Science Foundation
 HERD survey, 2021

among U.S. universities for tech

company

hires





You have a place at ASU

You might know exactly what you want your life to look like and have it planned out already. Or maybe you don't know what path to follow, but you know you want to do something amazing. Perhaps you're somewhere in between, kicking around a few ideas, not sure where you're going to settle.

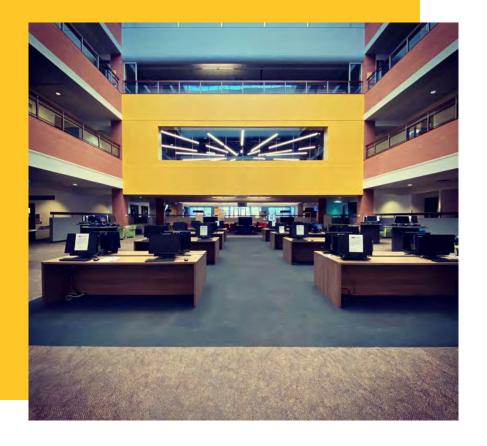
Regardless of where you are on your journey of figuring out yourself and your life, you have a place at ASU and we're ready to help.

Here you can start working toward your goals from day one, and we'll guide and support you throughout that journey. And you can try your hand at all sorts of things to see what fits you best, and we'll guide and support you through that, too.

It boils down to this: We measure ourselves as a university not by whom we exclude, but by whom we include. That means we want you here — and if you meet admission criteria, you're in. And we further measure ourselves by how you succeed. That means you're not in it alone. We've got your back. We'll pick you up if you fall, point you in the right direction and cheer you on the entire way.

You have a place at ASU, and we can't wait for you to take it.





Learning FuturesValues

We believe the future of learning looks more inclusive, equitable and accessible

Where learners achieve goals that are **agentic** and self-determined.

Encouraged by **collaboration** and supported by **social networks.**

Focused on the cultivation of future-focused mindsets.

Built by **learners as the creators**, makers, producers + inventors.

Rooted in responsible innovation practices.



Building ASU's Capacity

Imagining and creating learning platforms, products, models, and frameworks to reach the future at scale through broad collaboration, enabling curricular integration and licensing opportunities.



Creating Value for Partners and Students

Paid design, development and research work using skills of the future to provide students with experience and maintain viability



Enhancing Diversity and Inclusion

Providing paid future skill building, in addition to project work, for studio associates, and unpaid upskilling for the ASU community, including underrepresented individuals and groups

Organizational Structure



Collaboratory

Imagine + Architect

Bringing learners, partners, and research together to imagine and architect the future



Create + Research

Creating platforms, products, models, and frameworks to reach the future at scale



Emporium

Immerse + Inspire

Immersing learners in experiences that demonstrate and build skills for the future

Core Team



Heather Haseley
Co-Founder and
Executive Director,
Learning Futures



Dan MunnerleyCo-Founder and
Executive Director,
Learning Futures



Toby Vaughn Kidd Director, Learning Futures Studios



Olivia Hernandez
Creative Manager,
Learning Futures
Emporium



Bea Rodriguez-Fransen Director, Learning Futures Collaboratory



Jesse Murdoch
Digital Twin Specialist,
Management Intern



70 Student EmployeesStudio Associates



Faculty, Staff,
Partners
Studio Mentors



Partners
Studio Leaders
+ Liaisons

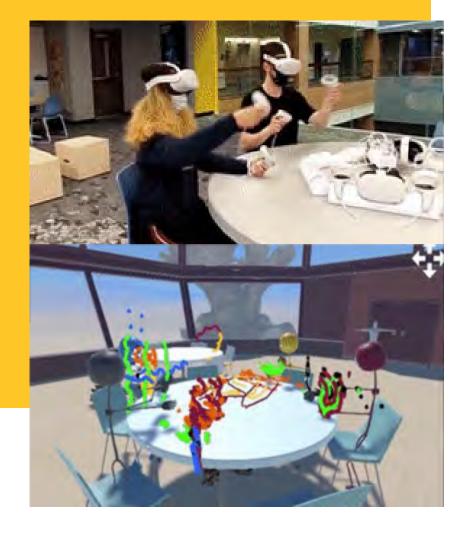


Studios

Creating platforms, products, models, and frameworks to reach the future at scale

- Proof-of-concept, minimum viable product, and prototype creation
- R&D of future tech, models, frameworks
- Partner and client project services
- Upskill and create upskilling workshops

Learning F	<mark>utures</mark> 🗞	Virtual Prod	A _{ro}	Ne Nana (AT Dex	denene	c%	And Infrast	natic	Concept	<i>A</i> ₂	4	Nr X Design	A
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Studios	Projects	COOL S	CETON	Der	enen,	OMMS	4	UCTUTE	deling,	ORS TON	NO/QA	Ch Lead	1680
Learning Futures Studio - Immersive, Decentralized Education	Digital Twin - ASUniverse	x	-	-	x	X	x	X	x	-	x	x	x
	360 Collab App	x	Х	_	x	х	х	X	_	_	x	x	x
	ASU Spark Hub Lobby												
	Microelectronics Clean Room	X	-	-	x	X	X	X -	X	-	x	X	X
	Learning Assets as NFTs	X	-	-		X	X		X	X		X	-
	Project Lead the Way AR	X	-	-	X	X	X	-	X	X	X	X	X
	Learning Assets NFTs	X	-	-	X	X	X	-	X	X	X	X	X
	Product Press Package	-	-	X	X	Х	-	-	-	X	X	X	X
	Nursing VR Simulation	-	-	-	x	X	-	-	-	-	-	-	x
	_	x	-	-	x	х	-	x	-	-	x	-	x
	Cross Cultural Comm Simulation	-	-	-	x	x	x	-	x	x	x	_	x
Verizon Innovation Hub	Huddle 5G + MEC	x	_	_	x	x	x	x	х	_	x	x	x
	Hub Events	-	-	-	х	x	-	-	-	-	-	-	-
Zoom Innovation Studio	Zoom Innovation Studio	-	-	-	x	х	-	-	-	x	-	_	x
	Zoom in the Metaverse Hackathon	x	-	x	х	x	х	x	-	x	x	x	x
	ZOOM 2.5D to 3D	x	_	_	x	x	_	x	_	_	_	x	x

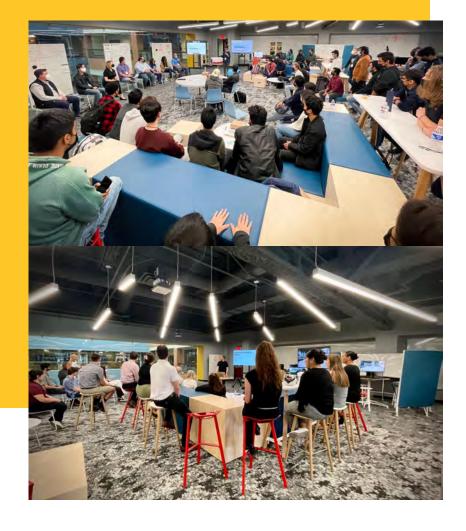


Huddle

ASU + Verizon Partner Project

A virtual learning environment with interactive educational tools for immersive visualization and learning facilitation that can be deployed in classrooms using a portable infrastructure.

In partnership with Verizon, we are working to deploy Huddle on 5G and MEC (edge computing).



Verizon Innovation Hub Partnership

Public Ultra-Wide Band 5G enabled R&D studio in the Creativity Commons

Opened in January 2022, the studio has hosted a 5G Digital Equity Jam, the Huddle 5G project, faculty R&D collaborations, and multiple upskilling workshops and visits











ASU Verizon Jam

Designing solutions to address digital equity using 5G and MEC

- 65+ student jammers
- 10 professional mentors
- 8 judges
- \$48K+ in prizes





Zoom Innovation Studio Partnership

Partnership between ASU + Zoom, including a physical studio the Creativity Commons opening October 2022

R&D projects include,

- Telehealth (Luminosity Labs)
- Zoom in the Metaverse (LF)
- Classroom of the Future (ShapingEDU)
- Zoom Hackathon (LF)
- Student recruitment



Learning FuturesConnect + Partner with us



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