



The Future of Academic Teaching and Learning: The Role of the Library

Tamar Sadeh, PhD
VP, Teaching and Learning Solutions





Agenda

- Introduction
- Trends, Key Drivers, and Scenarios for the future
 - 2022 EDUCAUSE Horizon Report
Teaching and Learning Edition
 - HolonIQ Education in 2030
Five Scenarios for future of Learning and Talent
- Higher Education Digital Capability Framework
- The Role of the Library

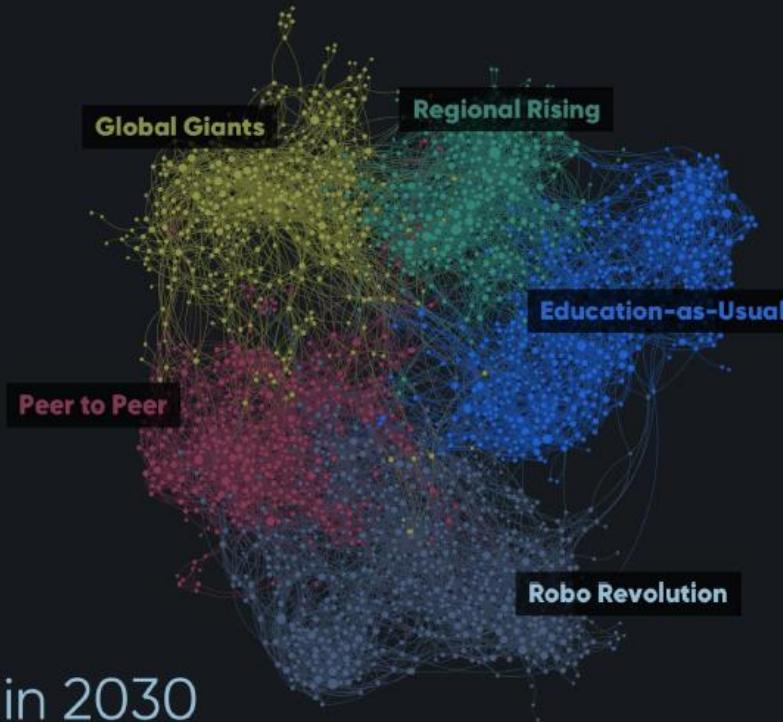
Introduction



2022 EDUCAUSE Horizon Report®
Teaching and Learning Edition



EDUCAUSE



Education in 2030

Five scenarios for the **future of learning and talent**.

in partnership with

Quid

Key Trends and Drivers



Learning, Working, Living

- Ubiquitous internet access
- Remote learning, work, social interaction
- Mobile first or mobile only
- Hybrid learning modes and spaces
- Lifelong learning
- Sustainability



Artificial Intelligence

- AI for learning analytics
- AI for learning tools

Curricula, Degrees, and Micro-Credentials

- Personalized learning experiences
- Measuring the ‘skills premium’ or ROI on investing in skills
- Learning models and curricula focus on skills
- Alternatives to academia
- Micro-credentials
- Blockchain for tamper-proof credentials



SCENARIOS

Given the trends we're observing, and the technologies and practices we see taking shape, where might higher education and teaching and learning wind up in 10 years' time? How might the people and institutions and practices of tomorrow look different from those of today? And how might the circumstances we find ourselves in today have evolved, expanded, or vanished altogether?

In this section we use a forecasting framework from the Institute for the Future (IFTF) to envision not just one definitive future but a collection of alternative futures that each take different angles on how today might lead into tomorrow. By envisioning several different types of futures, we can be expansive and flexible in our thinking and planning and be better prepared to anticipate and adjust to whatever future does eventually occur. This section of the *Horizon Report* is a creative exercise, then, that pushes us to imaginatively consider what might be possible. But it's also a grounded exercise, rooted as it is in the concrete trends, technologies, and practices we're observing around us today.

As we have in the past few years of *Horizon Reports*, we focus here on four scenarios for the future, each imagining the course of higher education through the decade beginning in 2022. The first scenario we consider is that of "growth," a scenario that sees current trajectories continue to expand into a future in which higher education largely flourishes but leaves some of its issues inadequately addressed. The second is "constraint," a scenario in which higher education is governed by a core guiding value that animates our important decisions and daily practices. Third is "collapse," a scenario in which higher education is beset by rapid breakdowns and forces of change outside its control and that ultimately leave higher education decimated. Finally, in the "transformation" scenario, a new paradigm is established for higher education that allows it to successfully evolve and thrive into the future.

This year's *Horizon Report* finds our panelists continuing to reflect on the global impacts of COVID-19, social unrest, and climate instability, all of which are certain to transform higher education and teaching and learning for many years to come. Now two years into the pandemic, many "emergency remote teaching" programs are evolving into well-designed online and hybrid learning programs, as colleges and universities embrace and plan for online education, not just as a stopgap but as a long-term strategic capability. Beyond the walls of the institution, political divisions are intensifying and social unrest is



Growth



Constraint



Collapse



Transformation



Five Scenarios Overview



	Global Environment	Overview	Economics	Regulation	Innovation & Tech
Education as Usual	<p>Status Quo Alimbo. The world economy is showing steady growth. Demographic trends in developed economies have dampened labor supply but new cohorts of educated workers from developing countries now enter the global workforce and one contributing to improved productivity and income equality. The world's skilled workforce has increased by 20% since 2018 and all of this growth is attributable to developing economies.</p>	<p>Societies and governments focus on improving their local situations. Education sharpens its focus on job and skills outcomes, especially in developed economies.</p>	<p>Governments remain core funding source. Private investment stalls due to lack of innovation. VC investment pours into disruptive alternatives. Education remains high cost.</p>	<p>Local regulation dominates formal education. Light touch regulation focuses on job outcomes. Slow pace hinders industry innovation.</p>	<p>Education sector remains under-digitized. Innovation R&D inefficient and high cost; Fragmented innovation efforts across the sector.</p>
Regional Rising	<p>Collaborative Advantage. Regional alliances dominate competitive global education landscape, supported by government economic and political cooperation. Countries form multilateral accords to solve unique regional issues, strengthen their competitive position for talent and maintain important aspects of culture.</p>	<p>Regional education systems cooperate and share resources. Intra-regional student and teacher circulation fosters skills exchange. Curriculum sharing lowers costs for regional education systems.</p>	<p>Cost pressures ease via efficiencies gained from alignment of frameworks and processes; regional "buying power" and improved access to regional expertise. Intra-regional rather than international study options lowers the overall cost of education.</p>	<p>Education regulators collaborate to harmonize regulatory frameworks, establish mutual recognition conventions and build regional qualifications frameworks.</p>	<p>Economic and innovation benefits gained from participating collectively in regional blended learning. Regional buying power eases technical infrastructure costs. Collaborative approaches to research fuel innovation.</p>
Global Giants	<p>Go Big or Go Home. Globalization has brought the world closer together in 2030. Multilateral agreements and free market policies have removed barriers to international trade and a stable geopolitical environment fosters global competition and growth. Political activity has lifted to the global level as intergovernmental organizations play a greater role in shaping international law, security, trade and commerce.</p>	<p>Consolidation and emergence of juggernaut education institutions with massive global market share. Education and technology giants partner to dominate delivery of post secondary learning and ongoing skills training.</p>	<p>Governments enter into agreements with giants to ensure delivery of effective skills training, technical infrastructure and data on learning and performance. Cost of education does not lower commensurate to delivery on global scale.</p>	<p>Regulators deal with a much less fragmented education market. Big data on schools, learning, teachers, students, provided by tech giants feed directly to regulator. Regulators transformed to data-driven decision-makers.</p>	<p>Fully personalised experiences belie tech oligopoly. R&D concentrated inside tech giants who invest in start-ups and integrate through their value chain.</p>
Peer to Peer	<p>Trust me, Trust you. In 2030, the global "peer-to-peer" economy has gone mainstream and is now an accepted way to live, work, learn and earn. Powered by declining transaction costs and ubiquitous connectivity, peer to peer exchange of goods and services has meant the disintermediation of the "institution" in most industries.</p>	<p>Learners are more in control of what, when and how they learn. Individuals collect micro credentials from a high number and broad range of providers. Micro-credentials are stored on the blockchain and learners construct their own collection of relevant knowledge, skills and experiences.</p>	<p>Post-secondary cost collapse. Diminished need for high cost infrastructure. Micro-tuition payments and verification fees become the norm. Investment surge as skills and economic outcomes improve.</p>	<p>Regulators struggle to redefine their role in the P2P economy. Most professional and skills training occurs outside the purview of traditional education regulators, who focus their efforts on the formal schooling sector.</p>	<p>Ubiquitous smartphone ownership shapes learning delivery. Distributed ledger technology underpins the P2P economy and supports verification of skills.</p>
Robo Revolution	<p>Who's Teaching who? The advancement and applications of artificial intelligence have delivered significant economic benefits to most countries in the world by 2030. As labor inputs have slowed in advanced economies, the importance of productivity in driving overall growth is now critical.</p>	<p>AI applications in education have automated aspects of teaching and administration and more complex human activities are augmented by artificial intelligence. AI is managing the design of learning experiences and incorporating human intervention where required.</p>	<p>Productivity gains through automation and augmentation realize significant cost savings in education. General educational delivery is more efficient.</p>	<p>Data on student learning and school performance is channeled directly to the regulator. Security of data and attention to underlying algorithms involved in decision-making are a key focus of education regulators.</p>	<p>The advent of "no-human-in-the-loop" technologies has displaced human workers, but also created a new set of jobs to build, maintain and manage these technologies.</p>

Higher Education Digital Capability Framework

An open-source capability framework for higher education. 4 dimensions, 16 domains and 70+ capabilities.

DEMAND AND DISCOVERY (DD)				LEARNING DESIGN (LD)				LEARNER EXPERIENCE (LX)				WORK AND LIFELONG LEARNING (WL)			
1.0 PRODUCT STRATEGY	2.0 MARKETING PROCESSES	3.0 STUDENT RECRUITMENT	4.0 ENROLLMENT MANAGEMENT	5.0 CURRICULUM DESIGN	6.0 DIGITAL CONTENT & COURSEWARE	7.0 SUBJECT MATTER EXPERTISE	8.0 TEACHING STRATEGIES	9.0 ACADEMIC ADMINISTRATION	10.0 LEARNING & ACADEMIC EXPERIENCE	11.0 STUDENT LIFE	12.0 ASSESSMENT & VERIFICATION	13.0 WORK INTEGRATED LEARNING	14.0 CAREER PLANNING & PLACEMENT	15.0 INDUSTRY & BUSINESS ENGAGEMENT	16.0 ALUMNI & CONTINUING EDUCATION
1.01 MARKET INSIGHTS & TRENDS	2.01 STUDENT RELATIONSHIP MANAGEMENT (CRM)	3.01 RECRUITMENT EVENTS	4.01 COURSE SELECTION & GUIDANCE	5.01 DIGITAL DESIGN PRINCIPLES	6.01 DIGITAL CONTENT CREATION	7.01 DESIGNING FOR DIGITAL LEARNING	8.01 LEARNER NEEDS & ANALYTICS	9.01 FACULTY PROFESSIONAL DEVELOPMENT	10.01 STUDENT PORTAL & LMS	11.01 ONBOARDING & ORIENTATION	12.01 TESTS & EXAMS	13.01 EMPLOYABILITY SKILLS BUILDING	14.01 COMPETENCIES & SKILLS EVALUATION	15.01 INDUSTRY COLLAB & PARTNERSHIPS	16.01 CONTINUING EDUCATION
1.02 UNDERSTAND CUSTOMER NEEDS	2.02 COMMS & CAMPAIGN MANAGEMENT	3.02 CHANNEL PARTNERSHIPS	4.02 APPLICATION & ADMISSIONS	5.02 PROGRAM ARCHITECTURE	6.02 IMMERSION, SIMULATION & LAB	7.02 FACULTY EXPERTISE & SPECIALISMS	8.02 DESIGNING ASSESSMENT	9.02 FACULTY MANAGEMENT & SUPPORT	10.02 SYNCHRONOUS LEARNING EXPERIENCES	11.02 WELLBEING & MENTAL HEALTH	12.02 PORTFOLIOS & PRACTICAL	13.02 WORKPLACE SIMULATION & PROJECTS	14.02 CAREER PLANNING SERVICES	15.02 PROFESSIONAL & INDUSTRY ASSOCIATIONS	16.02 INDUSTRY MONITORING & NETWORKS
1.03 COMPETITORS & ALTERNATES	2.03 MARKETING AUTOMATION	3.03 SCHOOLS & COMMUNITY OUTREACH	4.03 RECOGNIZING PRIOR LEARNING	5.03 LEARNING ENVIRONMENTS & PLATFORMS	6.03 OER & CONTENT LICENSING	7.03 SOURCING & MANAGING EXPERTISE	8.03 EXPERIENTIAL LEARNING APPROACHES	9.03 TIMETABLE & SCHEDULE MANAGEMENT	10.03 ASYNC. LEARNING EXPERIENCES	11.03 STUDENT COMMUNITIES, CLUBS & SOCIETIES	12.03 ASSESSMENT FEEDBACK	13.03 INTERNSHIPS & PLACEMENTS	14.03 CAREER & RECRUITMENT EVENTS	15.03 CUSTOMIZED PROGRAMS (B2B)	16.03 ALUMNI ENGAGEMENT
1.04 NEW BUSINESS MODELS	2.04 SOCIAL MEDIA & COMMUNITY MANAGEMENT	3.04 SCHOLARSHIP PROGRAM	4.04 TUITION FINANCING	5.04 LEARNING DELIVERY MODELS	6.04 MANAGING INTEGRATED CONTENT	7.04 SPECIALIST INDUSTRY PARTNERS	8.04 DESIGNING GROUP WORK	9.04 RETENTION & LEARNING SUPPORT	10.04 VOICE, CHAT & INTERACTIVE LEARNING	11.04 VOLUNTEERING & STUDENT LEADERSHIP	12.04 PEER & GROUP ASSESSMENT	13.04 STUDENT WORK	14.04 JOB AFRICANATION SUPPORT	15.04 EDUCATION AS EMPLOYEE BENEFIT	
		3.05 B2B RECRUITMENT & PARTNERSHIPS		5.05 ACCREDITATION		8.05 PERSONALIZED & ADAPTIVE LEARNING		9.05 REPORTING & REGULATORY COMPLIANCE	10.05 INDEPENDENT LEARNING RESOURCES	11.05 STUDENT VOICE & SURVEYS	12.05 BADGING & CREDENTIALING	13.05 INTERNSHIP & STAVURS	14.05 JOB FINDING & GRADUATE PLACEMENT		
				5.06 CURRICULUM QUALITY MANAGEMENT					10.06 LIBRARY SERVICES	11.06 EXCHANGE PROGRAMS	12.06 GRADUATION & SUCCESS				

Purpose of Framework

The Higher Education Digital Capability (HEDC) Framework is a learner-focused, practical and flexible approach to mapping and measuring digital capability in Higher Education institutions across the learner lifecycle. Universities and HE institutions globally use the framework to identify strengths, prioritise areas of focus and support their digital transformation strategies.

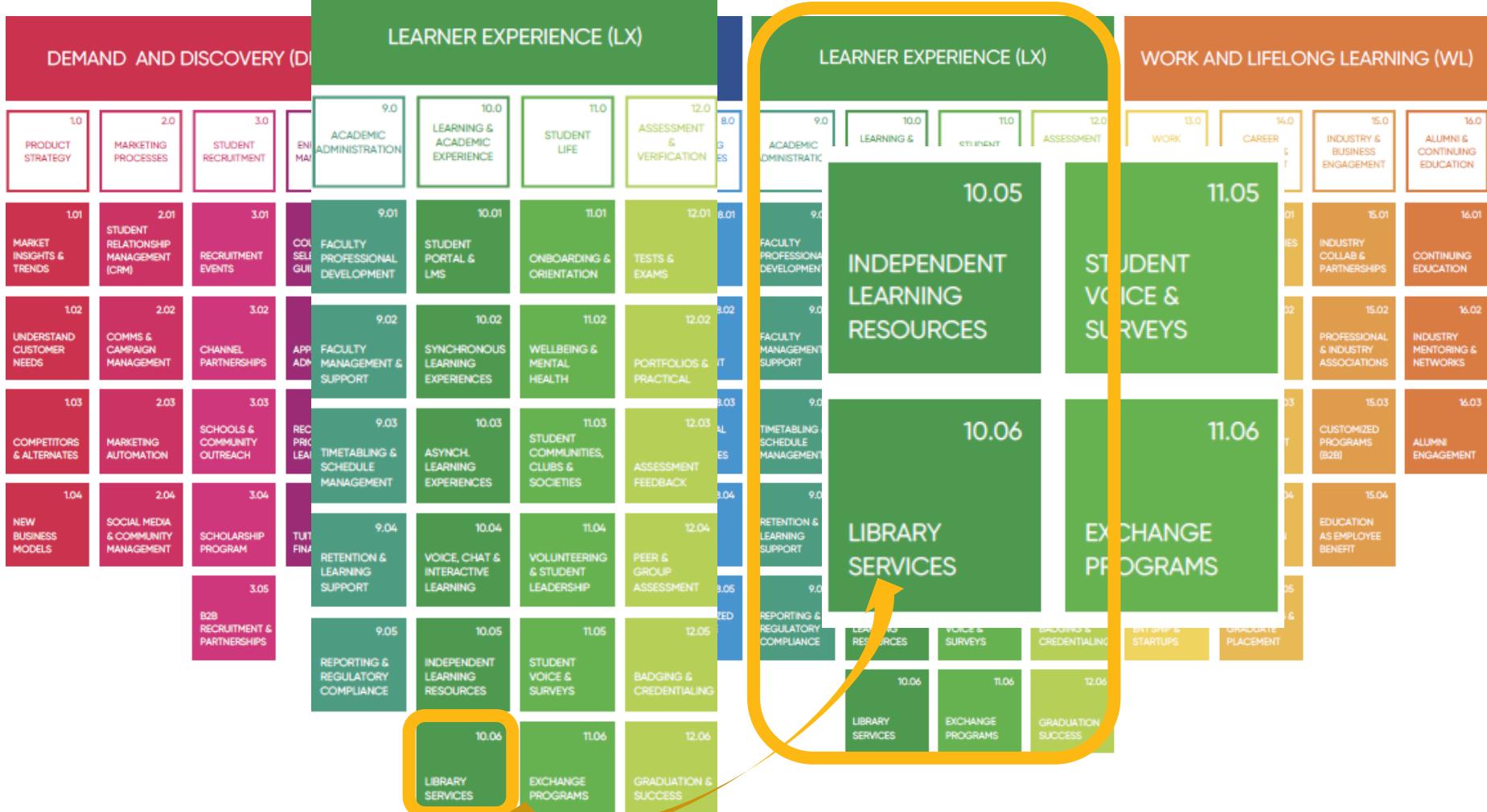
Methodology & Guiding Principles

The Framework acknowledges educational literature on digital capability and grounds these in current practice using ongoing consultation, research and analysis with Higher Education leaders around the world. The HEDC Framework benefits from a continuous and iterative feedback cycle informed by an engaged community of HE professionals.

Use the Framework

Institutions use the HEDC Framework to build familiarity, understanding and shared language of digital capability across the learner lifecycle. The Framework is accompanied by global case studies and other tools to support cross-institutional discussion of perceived performance, gaps and priorities. Go to www.digitalcapability.com to explore updates and download resources.

Demand and Discovery (DD)				Learning Design (LD)				Learner Experience (LX)				Work and Lifelong Learning (WL)				
1.0 Product Strategy	2.0 Marketing Processes	3.0 Student Recruitment	4.0 Enrollment Management	5.0 Curriculum Design	6.0 Digital Content & Courseware	7.0 Subject Matter Expertise	8.0 Teaching Strategies	9.0 Academic Administration	10.0 Learning & Academic Experience	11.0 Student Life	12.0 Assessment & Verification	13.0 Work Integrated Learning	14.0 Career Planning & Placement	15.0 Industry & Business Engagement	16.0 Alumni & Continuing Education	
1.01 Market Insights & Trends	2.01 Student Relationship Management (CRM)	3.01 Recruitment Events	4.01 Course Selection & Guidance	5.01 Digital Design Principles	6.01 Digital Content Creation	7.01 Designing for Digital Learning	8.01 Learner Needs & Analytics	9.01 Facility Professional Development	10.01 Student Portal & LMS	11.01 Onboarding & Orientation	12.01 Tests & Exams	13.01 Employability Skills Building	14.01 Competencies & Skills Evaluation	15.01 Industry Collab & Partnerships	16.01 Continuing Education	
1.02 Understand Customer Needs	2.02 Comms & Campaign Management	3.02 Channel Partnerships	4.02 Application & Admissions	5.02 Program Architecture	6.02 Immersion, Simulation & Lab	7.02 Faculty Expertise & Specialisms	8.02 Designing Assessment	9.02 Faculty Management & Support	10.02 Synchronous Learning Experiences	11.02 Wellbeing & Mental Health	12.02 Portfolios & Practical	13.02 Workplace Simulation & Projects	14.02 Career Planning Services	15.02 Professional & Industry Associations	16.02 Industry Mentoring & Networks	
1.03 Competitors & Alternates	2.03 Marketing Automation	3.03 Schools & Community Outreach	4.03 Recognizing Prior Learning	5.03 Learning Environments & Platforms	6.03 OER & Content Licensing	7.03 Sourcing & Managing Expertise	8.03 Experimental Learning Approaches	9.03 Timetabling & Schedule Management	10.03 Asynch. Learning Experiences	11.03 Student Communities, Clubs & Societies	12.03 Assessment Feedback	13.03 Internships & Placements	14.03 Career & Recruitment Events	15.03 Customized Programs (B2B)	16.03 Alumni Engagement	
1.04 New Business Models	2.04 Social Media & Community Management	3.04 Scholarship Program	4.04 Tuition Financing	5.04 Learning Delivery Models	6.04 Managing Integrated Content	7.04 Specialist Industry Partners	8.04 Designing Group Work	9.04 Retention & Learning Support	10.04 Voice, Chat & Interactive Learning	11.04 Volunteering & Student Leadership	12.04 Peer & Group Assessment	13.04 Student Work	14.04 Job Application Support	15.04 Education as Employee Benefit		
		3.05 B2B Recruitment & Partnerships		5.05 Accreditation		8.05 Personalized & Adaptive Learning	9.05 Reporting & Regulatory Compliance	10.05 Independent Learning Resources	11.05 Student Voice & Surveys	12.05 Badging & Credentialing	13.05 Entship & Startups	14.05 Job Finding & Graduate Placement				
			5.06 Curriculum Quality Management					10.06 Library Services	11.06 Exchange Programs	12.06 Graduation & Success						





[https://www.leanlibrary.com/community/
librarian-futures-report/](https://www.leanlibrary.com/community/librarian-futures-report/)

My goal as a 21st century librarian is to provide uncomplicated access to high quality information wherever and whenever the user needs it. My library's busy users need to access scholarly information within their workflow and with minimal barriers. I want library resources right on the shoulder of the patron.

LINDA VAN KEUREN, ASSISTANT
DEAN FOR ACCESS AND RESOURCE
MANAGEMENT, GEORGETOWN
UNIVERSITY MEDICAL CENTER





Questions

- Knowledge and skills versus years of education completed. How does ‘learning’ differ from ‘education’?
- Artificial intelligence: what are we losing?
- Academia that is not measurable by straightforward ROI: how do we mediate the value of humanities?



'Collini is astute, analytical, and often killingly funny'
BEVIS HILLIER, DAILY TELEGRAPH

'Collini is that rare bird, a don who can be read with pleasure...'
MICHAEL BARBER, TABLET, BOOKS OF THE YEAR

STEFAN COLLINI

If you have two pennies, spend one on bread and the other on a flower. The bread will sustain life. The flower will give you a reason to live.

-- Chinese proverb



Thank you!

tamar.sadeh@clarivate.com

