AACSB

Embracing the Digital Shift: Perspectives on Digital Transformation in Business Schools
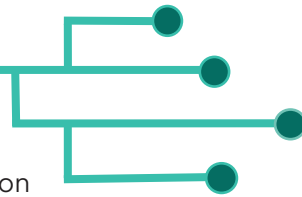

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Background

Business school leaders have long discussed the important role that technology plays in the overall business education experience—from the learning methods used by faculty, to the curricular content that prepares tomorrow's business leaders, to the strategic impact on institutional administration. With technological advances becoming more rapid, competitive, and central to every organization's strategic planning, it is becoming clear that digital transformation in higher education is not a passing fad but an area that business school leaders must continue to monitor, think about strategically, and adapt to.

As a starting point for this exploration, AACSB wanted to learn more about the perceptions, challenges, and opportunities that deans and faculty were experiencing as a result of digital transformation. At the same time, we learned through discussions with the Technology Business School Roundtable (TBSR), a group comprising technology leaders at AACSB-accredited business schools, that they were relaunching a survey to their members. We saw this as an opportunity to include several complementary questions for the IT audience, in hopes of gaining a comprehensive understanding of the perceptions these three key business school audiences have on digital transformation.

We distributed three survey instruments—one for deans, one for faculty, and one for IT leaders—in April of 2023. For the purposes of this survey, digital transformation was defined as the integration/adoption of digital technology into all areas of business school operations, including teaching, research, and administration. While every effort has been made to ensure the reliability and validity of the survey, it is important to acknowledge its limitations. One of these limitations includes disproportionately high participation in the United States, and therefore smaller sample sizes for the Europe, Middle East, and Africa (EMEA) and Asia Pacific (AP) regions. In addition, while deans received the survey link directly, faculty and IT leaders were dependent on their deans to distribute the survey link, resulting in smaller representation among these two audiences compared to their dean counterparts and making it difficult to identify institutional trends.

Despite these limitations, the survey responses serve as a valuable snapshot of the current state of digital transformation in business schools, and the resulting report provides insights into the prevailing trends, challenges, and opportunities in this rapidly evolving field, as well as several research questions for AACSB and educational leaders to investigate further. We are grateful to the members of the AACSB Digital Transformation Affinity Group and TBSR for their support in developing this survey.
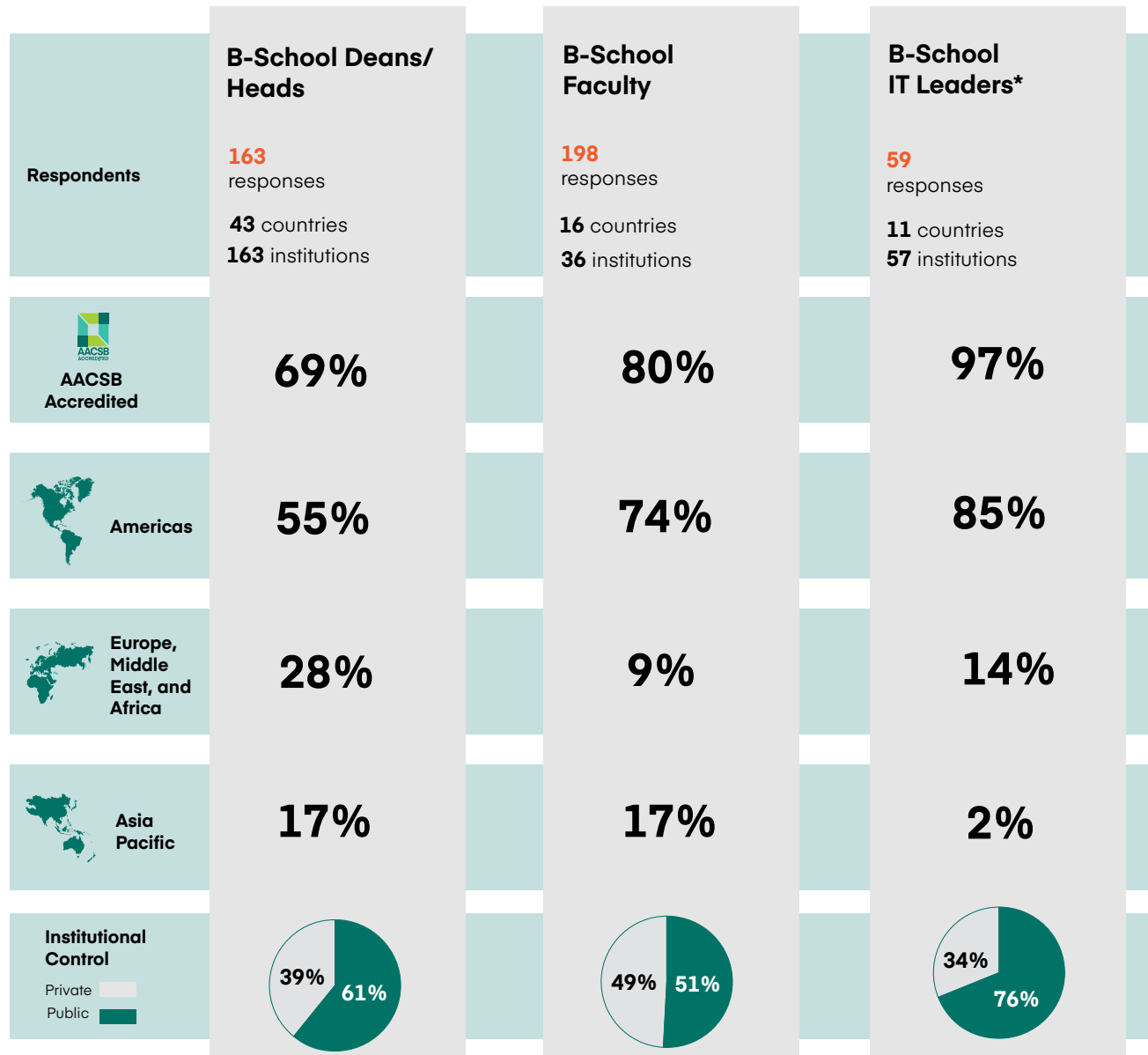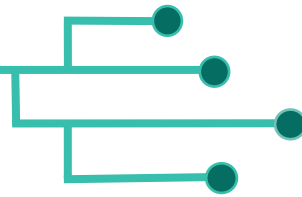
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Executive Summary

Survey Participation

	B-School Deans/Heads	B-School Faculty	B-School IT Leaders*
Respondents	**163** responses	**198** responses	**59** responses
	43 countries	**16** countries	**11** countries
	163 institutions	**36** institutions	**57** institutions
AACSB Accredited	**69%**	**80%**	**97%**
Americas	**55%**	**74%**	**85%**
Europe, Middle East, and Africa	**28%**	**9%**	**14%**
Asia Pacific	**17%**	**17%**	**2%**
Institutional Control — Private / Public	Private 39% / Public 61%	Private 49% / Public 51%	Private 34% / Public 76%

*The survey to IT leads was developed by the Technology Business School Roundtable and distributed with the other surveys. The survey instrument included a section of questions focusing on digital transformation that aligned with the dean and faculty surveys.

Key Takeaways

1 **Growing Strategic Importance Is Top of Mind**

Business school leaders anticipate an increased strategic focus on digital transformation efforts over the next two years, including recruiting digitally adept faculty, increasing hybrid degree programs, and increasing relevant budget allocation. Deans may perceive greater stakeholder alignment across these efforts than their faculty and IT counterparts.

2 **Learners Are at the Heart of Digital Transformation Opportunity**

Respondents are most optimistic about digital transformation's ability to improve learner experiences and equip faculty with tools to enhance their teaching. Anticipated uses include creating more flexible learning delivery options, leveraging data-enabled technologies to help learners achieve better outcomes, and exposing students early to the demands of the digital landscape.

3 **Top Challenges Include Increased Costs, New Competition, and Imbalanced Resources and Expertise**

While all audiences perceive the financial investment in digital transformation as the top challenge, deans also are concerned about increased competition from better-resourced schools and other learning providers. Faculty and IT leaders view inadequate and uneven digital skills among faculty and staff as a challenge. Many respondents are also hesitant about the potentially negative impact of reduced human interaction.

4 **Faculty Seek Greater Support as They Navigate Their New Expectations**

Deans and faculty acknowledge that the role of faculty is changing as business education becomes more digital—in teaching, research, and professional development. Both groups agree that schools can do more to incentivize faculty to use digital technologies. Faculty may be more inclined to embrace online teaching and the use of digital tools with the right training, resources, time, and cultural support in place.

5 **More Powerful Classroom Technologies Can Help With Learner Engagement**

With online or hybrid delivery, faculty face obstacles in keeping students engaged, creating meaningful connections, and monitoring academic dishonesty, especially with new platforms like ChatGPT and a lack of clear standards for navigating their use in today's educational environment. Most faculty use mainstream tools like Zoom, Microsoft Teams, and learning management systems in their classrooms, while fewer have begun to adopt data analytics and AI tools, which could improve engagement once faculty learn to use them effectively.

Digital Transformation as a Strategic Priority
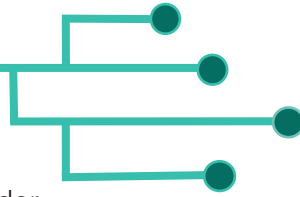
The complex, rapidly changing, and interconnected nature of digital innovation requires business school leaders to take a strategic approach. While we recognize that schools differ in their levels of maturity, implementation, and resources, we hoped to gain a better understanding of how business schools are prioritizing digital transformation and how deans, faculty, and IT leaders perceive stakeholder alignment within their institutions.

The three survey audiences were asked to review a series of statements describing their school's strategic approach to digital transformation.

Although digital transformation is not perceived as a top, fully integrated strategic priority at most responding institutions, the majority of deans and faculty indicated that digital transformation is an important component of the overall strategic plan, with some level of integration in specific areas of the school.

From your perspective, which of the following statements best describes the role of digital transformation/innovation within your business school's overall strategic priorities?
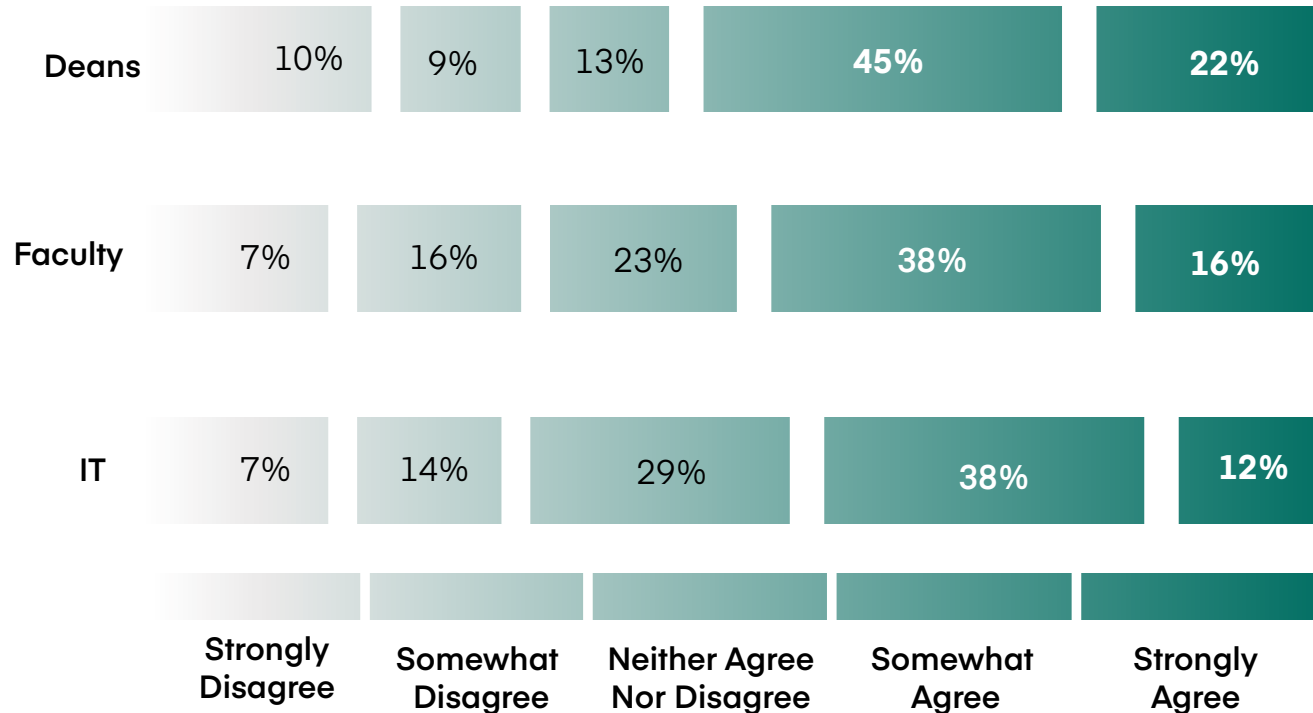
Digital transformation/innovation...	Percentage of		
	Deans n=162	Faculty n=198	IT n=58
is a **top priority** within our overall strategic plan; **fully integrated** across all areas of the business school.	27%	23%	17%
is a **formal component** within our overall strategic plan; intentionally **integrated across certain areas** of the business school.	**42%**	**48%**	29%
is an **informal component** within our overall strategic plan; **integrated across limited areas** of the business school at an ad hoc/individual basis.	29%	23%	**45%**
is **not addressed** within our overall strategic plan at any level; **no level of integration** across business school areas.	1%	4%	5%
Other	1%	3%	3%

Although regional participation is uneven among respondents, some sentiment trends exist by region. Among deans, respondents from Asia Pacific (17 percent of all deans) and EMEA (28 percent of all deans) are more likely than their counterparts in the Americas (55 percent of all deans) to indicate digital transformation as a top priority in their school's overall strategic plan. While only 19 percent of deans in the Americas said digital transformation is a top priority, 39 percent of deans in Asia Pacific and 36 percent of deans in EMEA said it is.

The majority of deans (67%) and faculty (54%) strongly or somewhat agree that there is stakeholder alignment in their school's digital transformation vision.

My business school's stakeholders—leadership (business school and university, if applicable), faculty, students, and staff—are aligned in the school's digital transformation vision.

	Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree
Deans	10%	9%	13%	45%	22%
Faculty	7%	16%	23%	38%	16%
IT	7%	14%	29%	38%	12%

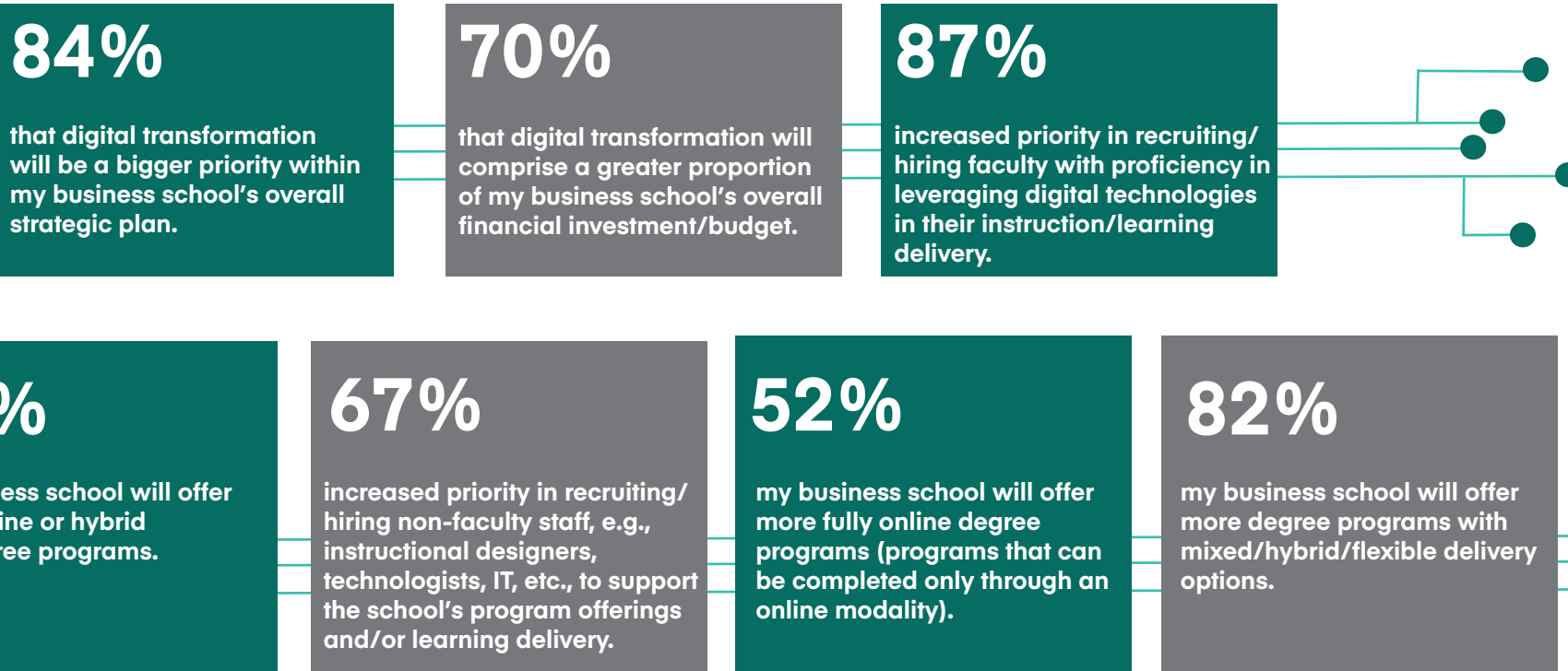"Schools need to strategically decide about the meaning of teaching, learning, and research in [the] presence [of digital transformation]." (Dean)

"Digital transformation provides various additional values for the school's stakeholders, especially students and faculty members; however, it needs to have collaborative and interactive values among these stakeholders to achieve school objectives." (Dean)

Business School Deans Agree

Dean respondents were asked to agree or disagree with a series of statements regarding anticipated changes at their business schools in the next two years. Here is where they agree.

In the next two years, I anticipate...

84%
that digital transformation will be a bigger priority within my business school's overall strategic plan.

70%
that digital transformation will comprise a greater proportion of my business school's overall financial investment/budget.

87%
increased priority in recruiting/hiring faculty with proficiency in leveraging digital technologies in their instruction/learning delivery.

66%
my business school will offer more online or hybrid non-degree programs.

67%
increased priority in recruiting/hiring non-faculty staff, e.g., instructional designers, technologists, IT, etc., to support the school's program offerings and/or learning delivery.

52%
my business school will offer more fully online degree programs (programs that can be completed only through an online modality).

82%
my business school will offer more degree programs with mixed/hybrid/flexible delivery options.

Although deans in all regions generally agree on all of these statements, deans in the Americas are less likely to agree that their school will place a higher priority on r*ecruiting/hiring non-faculty staff to support program offerings and/or learning delivery* (60 percent agree), compared to their counterparts in Asia Pacific and EMEA (79 percent and 76 percent, respectively).

Only 31 percent of deans in EMEA agree that their *business school will offer more fully online degree programs* in the next two years, compared to 63 percent of deans in the Americas and 50 percent of deans in Asia Pacific.

Where Are Deans Prioritizing Their Strategic Efforts?

Overall Organizational Strategy

Business school leaders are emphasizing the development and implementation of strategic plans that integrate digital transformation across program offerings, research efforts, and operations. Institutions are actively adapting their strategic plans to include digital transformation as a key area, at both the business school and university levels. Some schools are designating staff roles or steering groups to develop and guide the implementation of strategic agendas and initiatives related to the demands of the digital landscape. Leadership commitment, stakeholder collaboration, and resource investment are priority areas that business schools continue to cultivate in their digital transformation journeys.

Learner Experience Investment

Institutions are actively focusing on digital education and delivery to improve the learner experience. They are exploring and adopting new tools and technologies to facilitate online and blended learning, with the goal of providing flexibility and enriching educational opportunities. Schools are investing in advanced resources such as interactive virtual spaces, virtual reality (VR), and artificial intelligence (AI) to enhance learning. Institutions are equipping face-to-face classrooms with technological solutions that enable a seamless transition to hybrid instruction when needed. In addition, schools are using various digital platforms to provide comprehensive support to students throughout their academic journeys, including learning management systems (LMS) and dedicated software tools that encourage interactive engagement and track learner progress.

Curriculum Integration and Enhancement

Business schools are exploring ways to enhance their curricula to equip students with the knowledge and skills needed for an evolving business landscape. They are introducing new courses and programs that embed relevant topics like data analytics and digital business across the curriculum; some have developed new degree programs specifically focused on digital transformation, such as an MA in business intelligence and digital transformation. Schools are revising their core curricula or offering additional learning experiences, like microcredentials, and some are incorporating digital technology applications and tools into their teaching and delivery.

Research Efforts

Institutions are actively promoting research in topical areas related to digital transformation, data analytics, and other emerging technologies. They are integrating research into the curriculum, fostering collaborations with industry partners, and prioritizing faculty development in these areas. Investing in digital technologies and creating cross-disciplinary collaboration—for example, through research centers—are a couple of ways that business schools aim to advance knowledge at the intersection of business and digital transformation.

"Digital transformation permeates our strategic plan in a way that we do not explicitly state its importance ... yet it is ever present in our operations."

"A large cross-university initiative to develop research and teaching in applied AI has galvanized the several areas involved."

Student Engagement and Support

Successfully preparing students for a digital world is a top priority. Schools are making efforts to provide flexible learning options that accommodate different learning preferences and capitalize on technology-enabled education. They are promoting equitable access and inclusion by seeking solutions that allow for full student participation regardless of circumstances. Collaboration with industry partners enables the integration of technology-rich resources into the curriculum and provides access to digital tools that develop students' digital literacy. In addition, faculty are exploring ways to use technology to create engaging student-teacher interactions and better understand and address unique learner needs.

**Digital Adoption, Integration, and Transformation**

Business schools are increasingly looking at the operational and administrative efficiencies that greater digital transformation can provide, such as automating administrative tasks and increasing integration and collaboration with central administrative units in student enrollment, financial management, and so on. Some business school deans are working with IT to invest in technology infrastructure, foster institutional digital mindset and create a culture of innovation to drive successful technology adoption and integration.

"We are constantly working on new tools to enrich online and blended learning. This has a huge impact on the opportunities in our international programs."

"IT is not a help desk. I have been making IT and digital transformation into a mission-critical activity, integrated into all process improvement."

Opportunities and Challenges
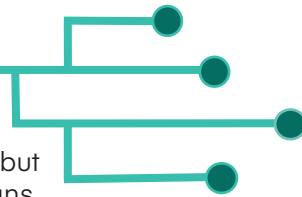
Technological evolution has been at the heart of societal innovation and progress, enabling organizations across industries to thrive—but also to be disrupted. Higher education is no stranger to these developments. The results of this study suggest that business school deans, faculty, and IT leaders agree that there are many opportunities to improve and expand access to business education through digital transformation.

But with opportunities come challenges, particularly in navigating changing market expectations and new forms of competition. As several participants shared, it is important to recognize the diversity of business schools around the world—including the programs they offer, the areas in which they specialize, the expertise they foster, the markets they serve, and the faculty they engage. There is no one-size-fits-all path for schools to take in their digital transformation journeys, and the types of challenges they face will vary. Some schools are well ahead of their peers, while others are just getting started.

All survey audiences were asked to make their top three selections from a list of opportunities and challenges related to digital transformation at their business school.

💡 **Enhanced learner experience and tools to support faculty teaching are key opportunities for business schools through digital transformation.**

Which of the following do you perceive as the biggest opportunities for your business school in embracing digital transformation? Select your top 3.

Opportunity	Percentage of		
	Deans **n=162**	**Faculty** **n=198**	**IT** **n=58**
Improved learner experience (timely, flexible, engaging, etc.)	**58%**	**56%**	**53%**
Tools supporting faculty teaching (through AI, streamlining/time-saving tools, etc.)	**38%**	**44%**	**41%**
New revenue generation	**37%**	25%	26%
Access to new learner demographics, geographic regions, etc.	33%	16%	12%
Improved learner outcomes	22%	**30%**	24%
Streamlined/cost-saving solutions (infrastructure, staffing, etc.)	21%	21%	22%
Data-informed learning and assessment	19%	21%	**38%**
Improved retention of students	19%	17%	14%
Scaling learning delivery	19%	27%	21%
Research/knowledge dissemination, productivity, impact	14%	21%	26%
Access to new faculty demographics, types, geographic regions, etc.	6%	7%	2%
Improved retention of faculty	6%	6%	7%
Other	1%	2%	9%

"Digital transformation is key to keeping business education relevant to and aligned with business practice and global trends. It not only adds value in terms of learning outcomes and diversified income sources; it is likely mandatory to not being left behind by the 'real' business world." (Dean)

Across all audiences surveyed, the top opportunity for embracing digital transformation is *improving the learner experience*, with over 50 percent of respondents recognizing its importance. This is particularly true for EMEA deans (28 percent of all dean respondents), 71 percent of whom selected this option as a top opportunity. *Tools to support faculty teaching* also received significant attention, although this result is largely driven by dean respondents in Asia Pacific and EMEA, where 61 percent and 42 percent, respectively, chose this response, compared to only 28 percent of deans in the Americas.

Alternatively, dean respondents in the Americas show overall strong interest in *generating new revenue* and expanding *access to new learner demographics and regions*. Faculty members prioritize *improving learner outcomes* and *scaling learning delivery*. The group of IT leaders emphasize *data-driven learning and assessment*, while faculty and IT leaders show relatively higher interest in *research and knowledge dissemination*. Overall, respondents show a moderate level of interest in *streamlined/cost-saving solutions*, and *faculty retention* does not emerge as a significant opportunity.

As might be expected, the roles and responsibilities of each group seem to shape where they see the most opportunity. The strategic nature of the dean's role leads this segment to look for new ways to generate revenue, while faculty interests naturally focus on teaching and the use of tools that can improve learner outcomes. IT leaders, with their technical skills, see promise in data-driven solutions, including in learning and assessment.

"The benefits of digital transformation to quality of life and flexibility of defining one's life as it pertains to professional and career obligations cannot be overstated. Higher ed should embrace these changes while ensuring that adaptations are recognized as requiring labor and not simply added on to the long list of expectations that employees ... and students alike are already undergoing. The added benefit is for students who get direct preparation for their future professional contexts that will only increase use of digital technologies in work." (Faculty)

The biggest perceived challenges for business schools in embracing digital transformation include the financial investment involved and increased competition from other business schools and learning providers. Faculty and IT leaders also noted that they struggle with a lack of digital acumen among faculty.

Which of the following do you perceive as the biggest challenges for your business school in embracing digital transformation? Select your top 3.

Challenge	Percentage of		
	Deans n=160	Faculty n=197	IT n=56
Financial investments (startup and incremental expenses, training/support, staffing, etc.)	**68%**	**49%**	**73%**
Competition with other business schools that are better resourced (financially, access to expertise, etc.)	**48%**	**40%**	27%
New competition with other learning providers (edtech platforms, etc.)	**40%**	30%	21%
Insufficient skill/knowledge by faculty	38%	**45%**	**52%**
Digital divide among learners (access gaps to technology/resources)	21%	27%	**34%**
Ethical, legal, privacy, and/or security issues	18%	23%	23%
Worsened learner outcomes	18%	21%	4%
Lessened ability to translate concepts into the "real world" (due to dominance of online/remote experiences)	13%	23%	13%
Degree devaluation	10%	18%	2%
Consolidation of business schools/institutions (due to scaled learning or resource imbalances)	9%	7%	4%
Other	5%	4%	25%

"In terms of business education, large behemoth universities that have mastered digital technologies will command increasing market share from small, private schools that simply cannot play in this league. Digital education will rest in a handful of global providers." (Dean)

It is clear from responses, particularly among deans and IT leaders, that the investment costs associated with digital transformation are top of mind. Among deans, some interesting regional differences exist around *consolidation of business schools/institutions*, where 29 percent of deans in Asia Pacific (18 percent of total dean respondents) cited this as a top challenge, compared to only 6 percent of deans in the Americas and 4 percent of deans in EMEA. A similar trend is seen in the reduced *ability to translate concepts into the "real world,"* with a significantly higher proportion of Asia Pacific deans identifying this as a top challenge compared to their counterparts in the Americas and EMEA.

Numerous respondents in all three groups also noted challenges related to the *digital divide among learners*. One dean noted how digital transformation exacerbates "the digital divide in our service areas, where some students live in towns that have no cellular service and limited internet bandwidth, while others have the latest and greatest and high speed. Offering online coursework for those who do not have broadband access (a significant problem in our region) further leaves them behind."

"The challenge is finding the soft spot that maximizes student engagement and faculty willingness and preparedness." (Faculty)
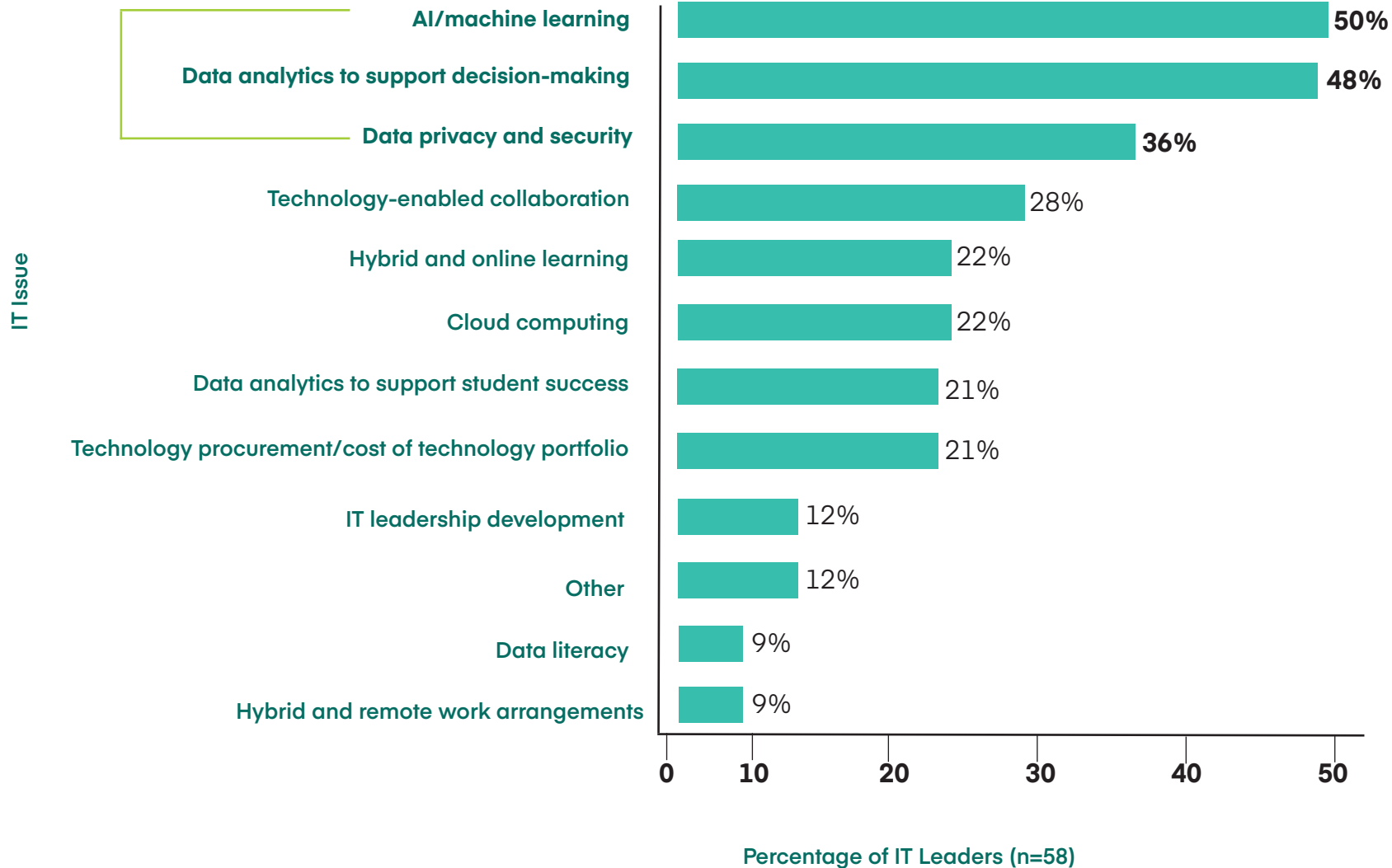
Faculty respondents' perceptions of top challenges are more proportionally distributed across the listed options. Compared to deans, faculty members perceive a greater challenge related to their overall lack of *digital technology skills/knowledge*, a similar sentiment that emerges among IT leaders. While nearly 60 percent of faculty surveyed recognize the opportunity to improve the learner experience through digital technologies, nearly half also acknowledge their own inadequate digital skill set. A higher proportion of faculty than deans also report challenges related to a *reduced ability to translate concepts into the "real world,"* as well as indicate concerns about potential *degree devaluation*.

"Digital transformation can automate administrative processes, monitor study progress, and overcome barriers to attendance. Digitalization can thus contribute to greater study quality, efficiency, and satisfaction. However, it does not compete with human interaction, and the goal of our digitization efforts is not to replace personal contact. Nevertheless, there seem to be these fears, which we need to counteract." (IT)

The most pressing IT issues for business school IT leaders include *AI/machine learning, data analytics to support decision-making,* and *data privacy and security*.

IT Leaders: Select up to 3 of the following emerging IT issues that you believe are the most pressing for your business school.

IT Issue	Percentage of IT Leaders (n=58)
AI/machine learning	**50%**
Data analytics to support decision-making	**48%**
Data privacy and security	**36%**
Technology-enabled collaboration	28%
Hybrid and online learning	22%
Cloud computing	22%
Data analytics to support student success	21%
Technology procurement/cost of technology portfolio	21%
IT leadership development	12%
Other	12%
Data literacy	9%
Hybrid and remote work arrangements	9%

5 Ways Digital Transformation Creates Stakeholder Value

Respondents were asked to share how, if at all, digital transformation can drive value for their student, business, and faculty stakeholders. Below are five themes that emerged, with some overlapping perspectives across audiences.

Overall, deans, faculty, and IT leaders are optimistic about how business schools can increase value for their stakeholders through digital transformation. However, some shared their views with a grain of caution, noting that any "transformation" requires an iterative process of collective buy-in, experimentation, and learning from failure. Interestingly, those with more pessimistic views identified a lack of value in the same areas their peers identified as adding value—such as learner experience and outcomes, faculty engagement, and automation—stating that the potential drawbacks of academic dishonesty, resource strain, and a lack of human interaction are too important to overlook.

📣 Deans Say:

1. Operational Efficiencies

With enhanced ability to access and interpret data, business schools can make more data-driven decisions that can help realize new efficiencies, such as streamlining administrative services and redirecting institutional resources to activities with greater potential for value creation.

2. Democratization of Education and Improved Access

Learners gain greater access to educational opportunities regardless of their geography, personal or professional responsibilities, and financial or physical barriers to campus. Business schools can reach and serve an expanded market of students, including those in untapped international markets and underserved communities. In addition, faculty can access more cases, experts, speakers, and industry leaders from around the world and can provide students with global, relevant, and diverse experiences that enhance learning.

3. Improved Quality of Learning

Certain digital tools can improve student learning outcomes by creating personalized educational experiences, enabling new applied learning opportunities, facilitating wider interdisciplinary collaboration, and exposing students to technological innovations that increase the overall quality of learning while enhancing students' employability.

4. Increased Student Engagement

In addition to enriching the learning experience, digital transformation can help institutions with recruitment, enrollment, and retention efforts by using student data to better understand engagement patterns, create more opportunities for two-way feedback, and provide students with the flexibility they need.

5. Stronger Faculty Engagement

Although many deans recognize the barriers faculty face in developing their digital literacy and using digital tools in their teaching and online or hybrid delivery, several respondents noted that digital transformation can help increase faculty satisfaction, enable better time management, and improve research outcomes.

"[Digital transformation] provides opportunities to better meet each student/group of students where they are in terms of preparedness and specific needs, interests, and preferences at the various stages of their business education and providing them with the custom pathways and experiences needed for academic and career success.

It also has the potential to enhance the university's operating efficiency."

Faculty Say:

1. Preparing Students for the Business World

By exposing students early to technology-enabled learning experiences, business schools help prepare graduates to enter a workforce that is increasingly hybrid and dependent on online collaboration. Business schools should strive to replicate the real world in their educational experiences so that graduates are prepared and competitive when they enter the workforce.

2. Student and Instructor Flexibility

Not only do students have more flexibility in a digitally enabled environment, but so do faculty and instructors. Teaching does not have to be confined to the classroom, and faculty can take advantage of digital innovations by creating more diverse and creative learning experiences for their students, as well as elevating their own needs and preferences for work-life balance.

3. Improved Enrollment and Retention

Similar to the deans, many faculty respondents noted that digital technologies offer opportunities for enhancing the traditional student experience in ways that promote positive student engagement and, in turn, create stronger retention.

4. Powerful Teaching Tools

With greater ability to collect, analyze, and interpret student data, instructors can create more customized and personalized learning experiences that allow them to accurately track student progress, identify learning gaps, and understand the extent to which course outcomes are being met. In addition, by shifting some coursework to online or asynchronous modules, faculty can spend more face-to-face time on meaningful connection, reflection, and discussion.

5. Elevated Knowledge Creation

Current and emerging technologies are creating more opportunities for faculty to not only access and quickly analyze larger amounts of timely information but also to disseminate and test new knowledge. Certain technologies can allow individuals to spend less time on task memorization and more time on deep critical thinking that can enhance original research and knowledge.

"Learner analytics (with protections for learner privacy and with safeguards for equity) have the power to radically transform learning outcomes for all. The link between meaningful engagement in content and learning outcomes is clear, and analytics provide the opportunity to uncover new methods of equitably and meaningfully engaging all students in course content."

📢 IT Leaders Say:

1. Increased Access

Digital technology expands access to new and timely data for a variety of purposes: understanding student progress and engagement to improve retention, streamlining operations, leveraging new educational resources that enhance the learning experience, obtaining tools that break down educational barriers, and using real-time data to advance faculty research.

2. Enhanced Productivity and Efficiencies

Available and emerging technology solutions create efficiencies, enable productivity, and improve decision-making throughout the business school and across the university by, for example, automating certain administrative processes, reducing overhead or redundant expenses, and streamlining processes.

3. Improved User/Learner Experience

Digital technologies enable expanded learning opportunities and personalized experiences based on individual needs, creating a more agile and modern educational environment that can help prepare students for the future of work. Digitization efforts should aim not to replace face-to-face contact but rather to relieve faculty and students of tedious tasks and contribute to higher-quality learning.

4. Strengthened Collaboration

Through more robust data management, business schools can develop more strategic partnerships across the institution and better understand constituent engagement levels and opportunities for enriched collaboration. Digital tools empower faculty and students to connect with colleagues around the world and foster deeper connection to industry through joint research, real-world case studies, internships, and other experiential activities.

5. Elevated Innovation

By embracing digital transformation across business school operations, research, teaching, and outreach, schools increase their ability to continuously innovate and differentiate themselves from competitors and education providers. Agility fosters creative learning that adapts to emerging trends and student needs.

"Digital transformation comes in many shapes and forms in terms of value in time back to the business, faculty, and students to focus on their primary objective, which is learning. We in IT can get new software tools to increase productivity and look at improving processes with robotic process automation, but it is getting the buy-in from the faculty and students which is critical for success."

AI: Friend or Foe?

The topic of AI was raised frequently by respondents throughout the survey. They widely believe that AI is here to stay and will continue to impact higher education, the business world, and, as a result, the way business schools prepare students and identify the skills they develop. Below are some highlighted sentiments about AI.

Deans

"Staff need to adapt assessments to the growing challenges posed by AI and similar tools used by students and also make sure that learning outcomes are such that students' digital skills are up to date and aligned with industry demand."

"AI is the future, and we have to adapt to it. Faculty need to learn to utilize AI in teaching or facilitating their courses and not fight it. Doing so will improve learner outcomes and hopefully increase learner engagement."

"Business can save a lot of tedious work [by] relying on AI—and [business schools] need to train on this."

"Digital transformation benefits a wide range of parties, because of the use of artificial intelligence and new analytical modes to enhance strategic decision-making in increasingly complex environments."

Faculty

"AI tools ... promise to open new ways of conducting business in a far more accelerated manner than we have seen before. As an example, I believe that collaboration speeds will be faster through AI-based matchmaking technologies and smart contracts. AI tools will guide us in efficiently selecting the most relevant content for the context."

"We are planning to formalize the policy around the usage of AI, not only by students but also by teachers, assessment developers, and other members of staff, including researchers."

"The use of innovative technologies such as Artificial Intelligence (AI), Big Data and Internet of Things, etc., are pillars of industry 4.0, this presupposes changes in the scope of work, which in turn requires the development and optimization of digital skills of the future professionals."

"Faculty is most worried about the incorporation of AI into the curriculum: Do we fight against it or try to incorporate it into student learning? How do we stop students from using AI in completing assignments and tests? How do we accurately determine if students are understanding class content?"

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IT

"AI will be an integral part of the industry, which will back-propagate demands into the curriculum."

"Technology is constantly evolving into new things like AI, cloud-based computing, effective online collaboration. Business needs to adopt some of these technologies where it makes sense and, thus, we need new business models or practices to help us manage remote workers, utilize cloud resources in a cost-effective manner, and develop content to teach the new generation of students how to use these newer tools in the field."

"We must incorporate things such as analytics, AI, and various current industry platforms into our curriculum and research, and work with our corporate and public partners to evaluate the ethics of how best to use these systems."

"Digital transformation can streamline business operations and improve efficiency by automating routine tasks and processes [through use of AI]. It can also break down barriers to education by making it more accessible to students and faculty members. Part of this effort can be accomplished through assistive technologies such as screen readers, and closed captions can help make educational materials more accessible to individuals with disabilities."
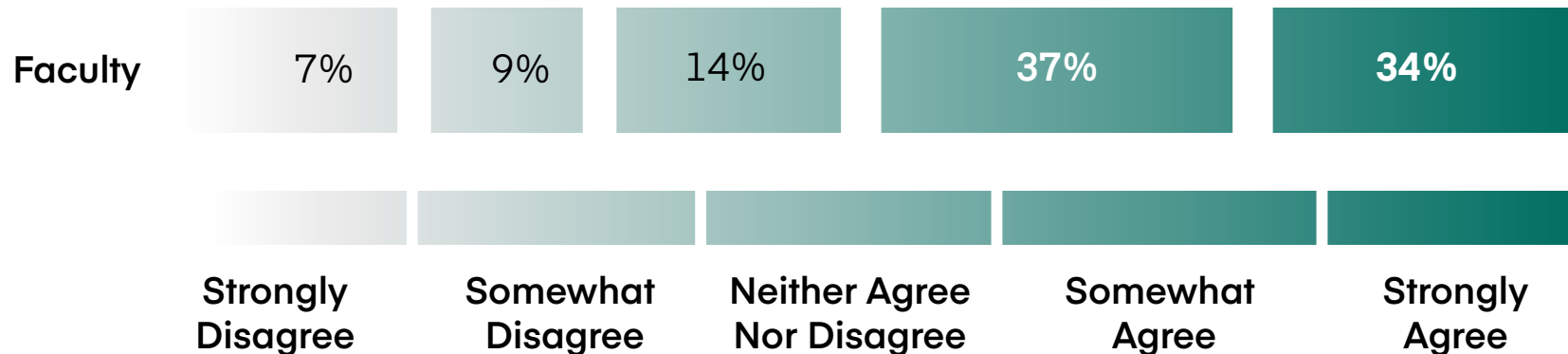
The Role of Faculty

Faculty are at the forefront of business schools' digital transformation efforts, and this circumstance has never been more evident than in recent years. As business schools continue to navigate new classroom dynamics, learner preferences, and the expectations of their stakeholders, faculty are witnessing a shift in their role. In fact, 71 percent of those we surveyed believe their role and expectations are changing significantly as a result of digital transformation. The findings suggest that, overall, faculty and business school leadership are aligned on the opportunities that digital technology presents for their students, research productivity, and overall institutional success. However, they recognize the need for unified support among institutional leadership, colleagues, and students.

71% of faculty believe that their role and expectations are significantly changing because of digital transformation.

The role and expectations of business school faculty are significantly changing as a result of digital transformation.

Faculty				
7%	9%	14%	37%	34%
Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree

"Roles are changing and it is a natural evolution of being a relevant faculty member. However, we must realize that everyone is in a different place, so how do we use early adopters and our expertise among the faculty to help those who may not be, realizing not everyone has to be at the same place, at the same time?"

Changing Roles and Expectations

Faculty respondents shared the ways they see their roles and expectations changing as digital transformation continues to impact business education. Most recognize the broad opportunities for business education; however, several respondents indicated that integrating digital technology into learning content and delivery is a resource-intensive practice that may also pose some risks to learning outcomes.

Technology Adoption

Faculty members are increasingly expected to be technologically savvy and incorporate various solutions into their teaching practices. From AI to software packages to digital platforms to LMSs and more, faculty are expected to use digital tools to create more efficient and effective learning experiences. This expectation adds to a full workload that is sometimes not recognized or appreciated by business school leadership.

Always-On Learning

The rise of online education has necessitated a shift in teaching methods. Faculty members are expected to effectively engage students in online settings, which requires a different skill set than traditional teaching face-to-face. The emerging expectation is that learning can happen anywhere, anytime, suggesting that faculty must be always "on."

Rigorous Research

Faculty are expected to use digital technology to develop rigorous, original research based on real-time data and to advance industry and disciplinary knowledge in topical areas related to business and digital innovation.

Adaptation and Agility

The rapid pace of digital innovation means that educators are expected to stay abreast of emerging trends and adapt their practices accordingly. These expectations include understanding and using advanced digital tools for teaching, customizing digital education delivery based on students' learning styles, and adopting more dynamic methods of teaching and engagement.

Academic Integrity

The incorporation of AI tools into teaching and research has raised concerns about academic integrity. Faculty are expected to navigate this new landscape and determine how to maintain rigor and quality in an increasingly digital environment.

"The faculty need to be and are expected to be where the students are. The students may not be technically proficient, but they are intense users of technology-mediated media and expect their faculty to be somewhat savvy also."

"Modern business sits at the intersection of traditional business principles and emerging technology. We have to help our students engage with technology and learn how to use it to create value so they can achieve the best internships and career opportunities."

Digital Skills Development

As the workplace continues to embrace digital transformation, faculty are expected to incorporate digital skills development into their courses so that students are equipped with the skills necessary for the modern workforce.

Role Evolution

The role of faculty is evolving from that of an information provider to a guide who helps students maneuver the vast amount of content available. This new role also includes preparing students to use technology effectively in decision-making processes.

AI Integration

Faculty need to sort through developments in generative AI and find ways to effectively integrate it into the learning process. While most faculty expressed enthusiasm for further exploration of AI, many noted that resistance from colleagues makes it difficult to develop shared institutional strategies.

"Teaching work expectations have increased substantially with little recognition of the labor required to do so. The demands on faculty to 'prep' courses in the traditional sense are doubled or tripled across multiple modalities being requested in an increasing digital delivery model of higher education."

Faculty and dean respondents were provided with a list of affirmative statements describing sentiments and practices related to digital technology in specific areas of faculty work. Deans rated their level of agreement with each statement based on their perceptions of their faculty, while faculty respondents rated their level of agreement with each statement based on their own experiences.

Rate your level of agreement with the following statements.

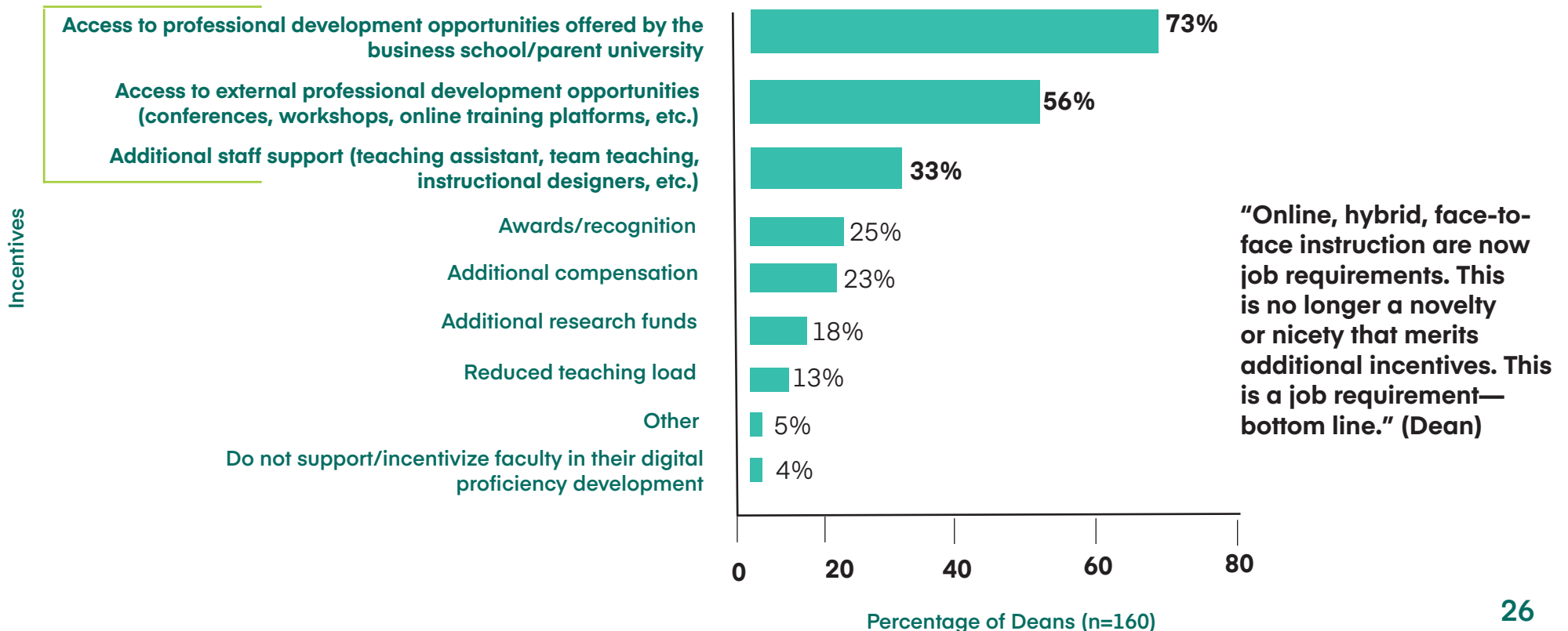| Faculty at my school/I...	Role	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree
Positively embrace using digital technology in their/my teaching.	Dean	27%	**53%**	9%	9%	2%
	Faculty	**53%**	34%	7%	3%	3%
Positively embrace digital technology in their/my research.	Dean	33%	**37%**	21%	8%	1%
	Faculty	**45%**	28%	21%	3%	3%
Positively embrace teaching in a fully online setting.	Dean	14%	**34%**	18%	25%	9%
	Faculty	**27%**	27%	18%	11%	17%
Positively embrace teaching in a hybrid setting.	Dean	21%	**38%**	20%	16%	6%
	Faculty	33%	**34%**	13%	15%	5%
Effectively use digital technologies to enhance their/my teaching.	Dean	12%	**57%**	20%	9%	3%
	Faculty	36%	**44%**	12%	5%	3%
Are/am knowledgeable of the latest digital technologies that enhance business education.	Dean	6%	**54%**	16%	19%	4%
	Faculty	24%	**45%**	15%	11%	6%
Are/am knowledgeable about emerging technologies that impact the business world.	Dean	10%	**50%**	21%	18%	1%
	Faculty	28%	**42%**	16%	10%	5%
Effectively engage with students through digital, online tools, in and out of the classroom.	Dean	17%	**47%**	22%	13%	2%
	Faculty	33%	**41%**	16%	6%	4%
Are/am adequately supported in digital/technology proficiency development as it relates to their/my work.	Dean	18%	**46%**	16%	17%	4%
	Faculty	21%	**42%**	16%	15%	6%
Are/am adequately incentivized to leverage digital technology in their/my teaching and/or research activities.	Dean	11%	28%	26%	**29%**	6%
	Faculty	12%	**28%**	23%	23%	14%

Overall, the majority of deans and faculty agree across the affirmative statements, with the exception of the last statement; only 39 percent of deans and 40 percent of faculty strongly or somewhat agree that they are *adequately incentivized to leverage digital technology in teaching and/or research activities*. About the same proportion of deans and faculty disagree with this statement, 35 percent and 37 percent, respectively. In fact, a notable proportion of deans (83 percent) and faculty (74 percent) hover between somewhat agreeing and somewhat disagreeing, suggesting that, out of all the statements, both groups are most neutral about this option.

Several other nuances emerged between the groups. For example, a majority of faculty, 53 percent, strongly agree that they *positively embrace using digital technology in their teaching*, compared to only 27 percent of deans who also strongly agree. In addition, deans are less likely to agree that faculty *positively embrace teaching in a fully online setting*, at 48 percent, compared to 54 percent of faculty who express agreement. However, this statement also represents the largest proportion of strong disagreement among faculty, suggesting variability in sentiment and comfort with online teaching among the faculty surveyed.
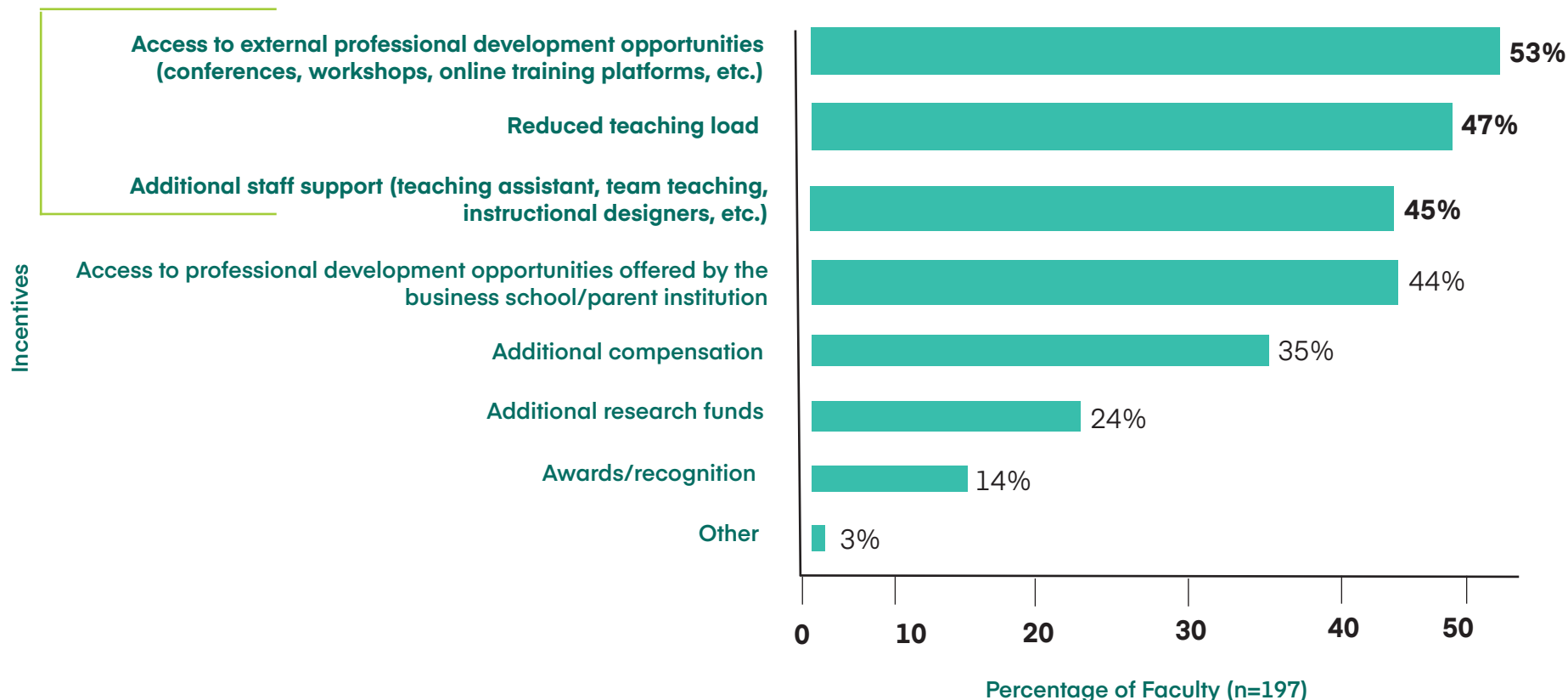
We see that faculty and dean sentiments are more agreeable to teaching in a hybrid setting than in a fully online setting, indicating that there may be preference for a mix of traditional and digital teaching methods, as opposed to relying solely on technology-enabled teaching. However, the results also suggest that both deans and faculty see room for exploring and enhancing faculty incentives, which could lead to improved sentiments and greater faculty adoption of digital tools and online learning.

Dean respondents were asked to review a list of incentives to support the development of faculty digital skills and select those used at their schools, while faculty selected their top three from the same list of options.

Deans: In which ways, if any, do you incentivize/support faculty in their digital/technology proficiency development? Select all that apply.

Incentives

- Access to professional development opportunities offered by the business school/parent university — **73%**
- Access to external professional development opportunities (conferences, workshops, online training platforms, etc.) — **56%**
- Additional staff support (teaching assistant, team teaching, instructional designers, etc.) — **33%**
- Awards/recognition — 25%
- Additional compensation — 23%
- Additional research funds — 18%
- Reduced teaching load — 13%
- Other — 5%
- Do not support/incentivize faculty in their digital proficiency development — 4%

Percentage of Deans (n=160)

"Online, hybrid, face-to-face instruction are now job requirements. This is no longer a novelty or nicety that merits additional incentives. This is a job requirement— bottom line." (Dean)

Faculty: Which incentives/types of support are most appealing to you in supporting your digital proficiency development? Select the top 3.

Incentives	Percentage of Faculty (n=197)
Access to external professional development opportunities (conferences, workshops, online training platforms, etc.)	53%
Reduced teaching load	47%
Additional staff support (teaching assistant, team teaching, instructional designers, etc.)	45%
Access to professional development opportunities offered by the business school/parent institution	44%
Additional compensation	35%
Additional research funds	24%
Awards/recognition	14%
Other	3%

"[Faculty should receive] fair, additional compensation for the time required to create, update, and maintain digital course material, or release time if additional compensation is not an option due to budget constraints." (Faculty)

Access to professional development opportunities at the institution was the most common incentive offered by business school deans, followed by *access to external professional development*. The remaining incentives were more widely distributed among dean respondents. Fifty-three percent of faculty (the largest proportion of respondents) selected *external professional development opportunities* as the most attractive incentive, followed closely by *reduced teaching load* and then *additional staff support*, with nearly half of faculty selecting these incentives as their top three.

Although the two survey populations do not represent an equivalent number of institutions, the discrepancy among responses is still noteworthy: Across the 160 global business schools represented in the deans' survey, support through a r*educed teaching load* was not commonly reported, with only 13 percent of deans indicating that they offer it, while nearly 50 percent of faculty surveyed, representing 36 business schools, indicated that they would like such support in their development efforts.

"Support is needed in digital infrastructure and access to the newest technology innovations. Also, we need support to deal with regulations and formal structures that tend to change slowly." (Faculty)

A full faculty workload was the most frequently cited obstacle deans face in getting faculty to adopt and use digital technologies.

Deans: Which obstacles do you face with getting faculty to embrace or leverage digital technology? Select all that apply.

Obstacle	Percentage of Deans			
	Americas n=89	Asia Pacifc n=27	EMEA n=160	Total n=160
Full workload/not enough time for additional responsibilities and/or training	**67%**	**74%**	**70%**	**69%**
Lack of incentives to offer faculty for greater engagement with digital/online technologies	**55%**	**70%**	43%	**54%**
Insufficient knowledge/awareness by faculty	52%	52%	**55%**	53%
Lack of staff/human resources to support faculty development	43%	52%	34%	42%
Lack of resources to introduce/implement new technologies for faculty to use/experiment with	45%	44%	34%	42%
Lack of funds for supporting training/professional development	47%	37%	30%	41%
Negativity/aversion among faculty	39%	19%	16%	29%
Lack of faculty ambassador/leaders promoting digital transformation	29%	30%	23%	28%
Other	9%	11%	5%	8%

According to responses from both faculty and deans, business schools face some interrelated challenges in engaging faculty in further digital development. Both faculty and deans perceive *already full workloads and the expanded set of roles and responsibilities* that faculty are expected to assume as major obstacles to developing digital skills. The next two most-frequently cited barriers by deans—*lack of incentives* and *insufficient faculty knowledge*—are likely related to faculty's limited bandwidth and inability to devote more time to developing these skills, yet only a small percentage of deans (13 percent) report offering reduced teaching loads as an incentive.

Faculty Get Candid About Where They Need Support

Training and Development

A recurring theme that faculty shared was the need for adequate and systematic training on emerging technologies and related trends. Specific areas for increased training include:

- **Technology integration:** Awareness and ability to use various tools to facilitate the learning experience.
- **Hybrid and online modalities:** Hybrid delivery modes; in particular, best practices on how to effectively and seamlessly integrate in-person and remote classrooms.
- **Technical and pedagogical training:** Faculty need not only technical training but also pedagogical support that enhances their knowledge of when and how to use specific technologies to improve learning outcomes.
- **Student training:** It is often assumed that students, as "digital natives," are able to use technology in the learning process. However, learners' levels of skill and comfort range widely, and training for students can help with their own development as well as reduce their reliance on faculty for IT support.

More Time

Faculty would benefit from additional time in their workdays for training that's tailored to their specific needs, and for the exploration and experimentation needed to become more digitally literate. Some respondents shared possible solutions, including training in time management strategies as well as course releases, that would help them balance teaching, research, and training activities.

Infrastructure and Timely Support

Many respondents noted the need for on-site technical and IT support for troubleshooting, equipping classrooms with necessary tools, managing systems, and implementing and maintaining new technologies. Several respondents said that greater use of instructional designers could improve classroom teaching while alleviating some of the time demands that faculty face with their additional responsibilities.

"With changing expectations, where I most need support is in time management, classroom management, and research into new ways of teaching."

"We are asked to publish more and better, and yet to teach larger classes, mentor undergraduate and graduate students, do numerous service activities (and this is in addition to our professional services we do as research faculty), do experiential learning activities (which makes new prep every semester we teach), help students with internships, etc."

"I need support in outfitting classrooms that easily facilitate remote and hybrid teaching ... [and] in developing courses that are optimized for such teaching."

Addressing Academic Integrity Concerns

Online delivery and emerging technologies such as ChatGPT present unprecedented challenges related to academic dishonesty, and faculty are seeking more robust systems and formalized standards and procedures enforced by their institutions. Current academic dishonesty standards and protocols should be re-evaluated to better address today's educational dynamics.

Supportive Organizational Culture

Faculty want their school leaders to clearly communicate strategic goals related to digital transformation—and how those goals translate into expectations for faculty. They want leadership to be more understanding and empathetic to the adaptation processes that need to take place, and to help build stronger relationships with a variety of stakeholders who can work with faculty to create success for the business school.

"Our academic appeals process is slow, complex, and gives entirely too much benefit of the doubt to the student. Our administrators hate dealing with cheating accusations and they let us know it."

"There needs to be filtering and prioritization of the plethora of new tools and technologies that are being suggested to us."
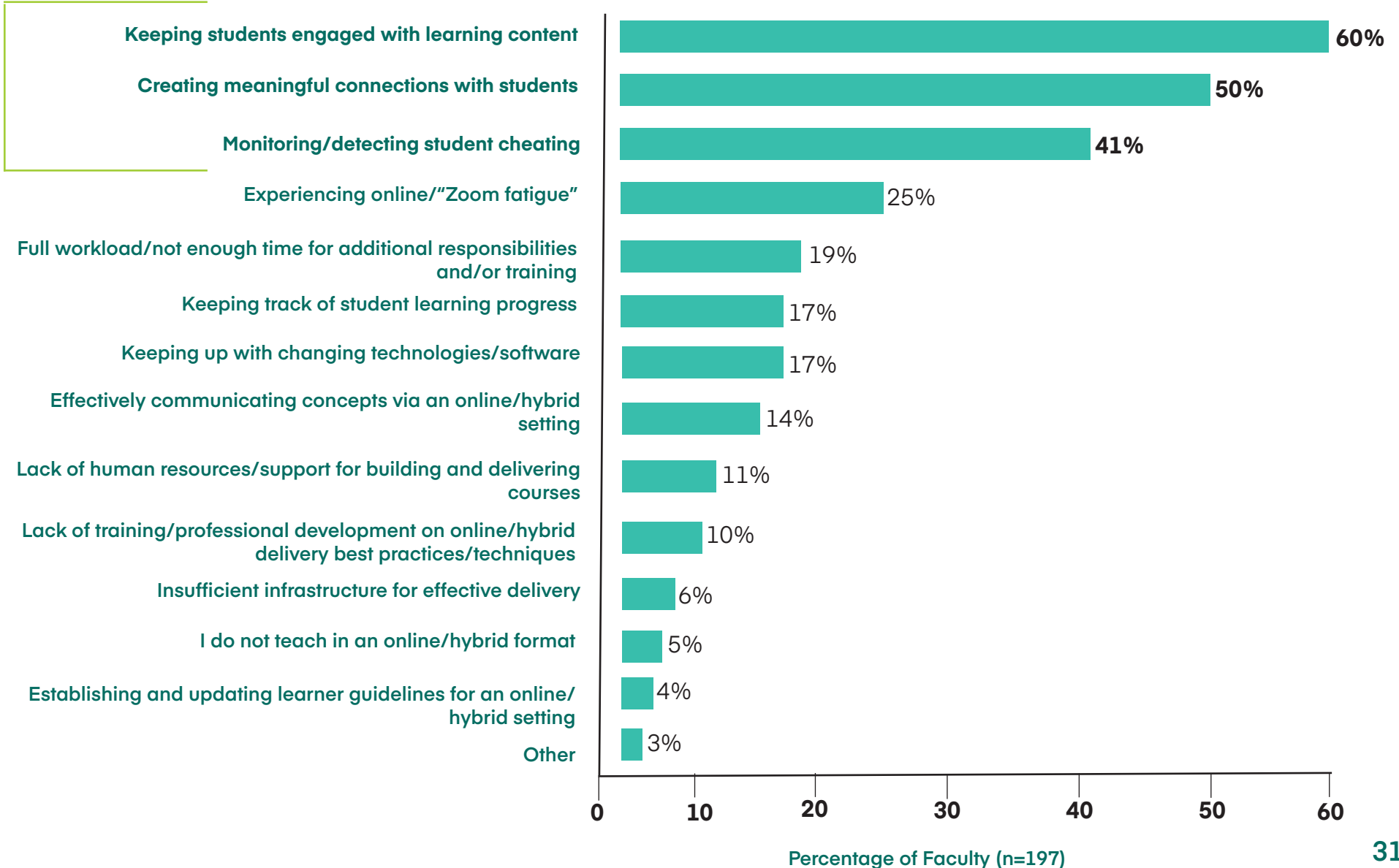
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Technology in the Classroom

The most common obstacles that faculty face in teaching online/hybrid involve the student experience—keeping them engaged, creating meaningful connections, and monitoring for cheating.

Faculty: Select up to three major obstacles you face in teaching in an online/hybrid format.

Obstacles

Obstacle	Percentage
Keeping students engaged with learning content	**60%**
Creating meaningful connections with students	**50%**
Monitoring/detecting student cheating	**41%**
Experiencing online/"Zoom fatigue"	25%
Full workload/not enough time for additional responsibilities and/or training	19%
Keeping track of student learning progress	17%
Keeping up with changing technologies/software	17%
Effectively communicating concepts via an online/hybrid setting	14%
Lack of human resources/support for building and delivering courses	11%
Lack of training/professional development on online/hybrid delivery best practices/techniques	10%
Insufficient infrastructure for effective delivery	6%
I do not teach in an online/hybrid format	5%
Establishing and updating learner guidelines for an online/hybrid setting	4%
Other	3%

Percentage of Faculty (n=197)

"Although schools and faculty members are aware of the importance of digital transformation, [these advances] would not guarantee learning effectiveness with students who are not willing to adapt to new digital transformation." (Faculty)

Faculty: Which of the following digital technologies do you use in your teaching/learning delivery, regardless of modality? Select all that apply.
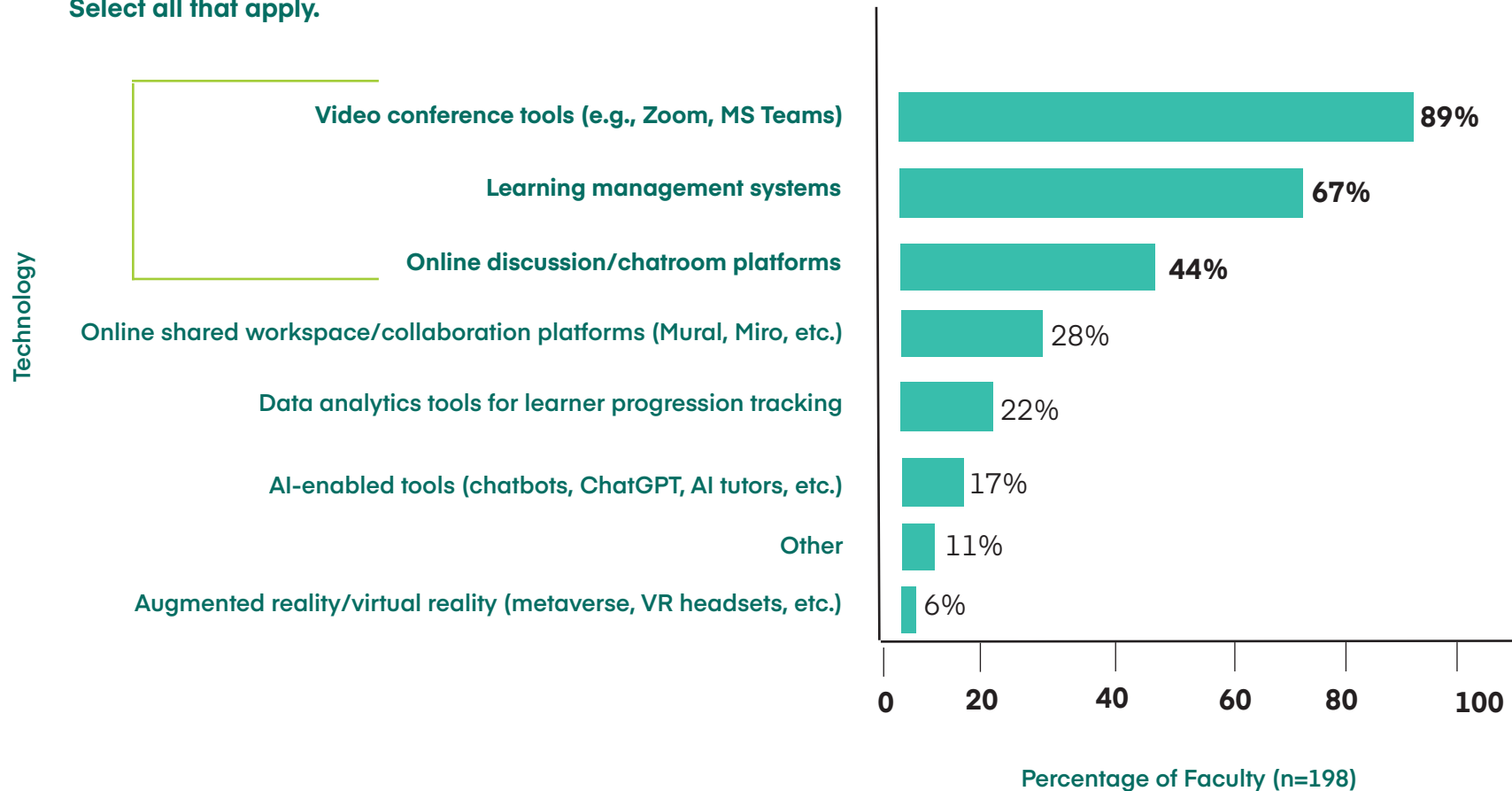
In regard to teaching specifically in an online or hybrid format, faculty reported that the biggest obstacles they face involve student engagement, creating meaningful connections, and monitoring academic dishonesty, suggesting that faculty are primarily focused on optimizing the learner experience. When also asked to identify the types of tools and technologies they use in their teaching, the majority indicated use of mainstream tools such as Zoom and Microsoft Teams, and a smaller proportion use data analytics or AI that are more powerful in tracking learner progress, which could help create a more engaged and personalized experience for students. Respondents also shared some of the specific tools they are using, demonstrating that many faculty are experimenting with the wealth of educational technology options available.

Faculty Share Impactful Digital Technology Tools

Artificial Intelligence Tools and Platforms

- Open AI/ChatGPT
- Other AI tools

Simulations

- MIT simulations
- GLO-BUS simulation

Video Conference and Collaboration

- Flipgrid
- Zoom
- Google apps (Google Docs, Google Drive, Google Cloud, etc.)
- MS Teams

Audience Response Systems and Interactive Tools

- iClicker
- Pear Deck
- Socrative
- Quizizz
- Packback

Learning Management Systems and Course Platforms

- Blackboard Collaborate
- Canvas
- Moodle
- Blackboard LMS
- D2L

Educational Content/Multimedia Resources

- LinkedIn Learning
- Screenflow video editor
- Wondershare video converter
- YouTube
- Netflix
- Smart eBooks
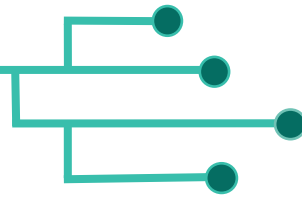
Publisher Tools and Platforms

- Publisher-provided content management systems
- McGraw-Hill Connect
- IDEA
- Bookshelf
- Respondus Lockdown

Productivity and Data Analysis

- Excel

About the Sponsor

The Stevens Institute of Technology School of Business

The Stevens Institute of Technology School of Business is one of the fastest-rising business education institutions in the U.S. In less than 10 years as a business school, Stevens is ranked No. 53 in the nation by *U.S. News & World Report*. Its focus on business education on a global scale teaches both analytics and technology to prepare students to be leaders in the digital economy.

As part of a student-centric university focused on technology, the Stevens School of Business is uniquely positioned for curriculum innovation. Thanks to facilities such as the Hanlon Financial Systems Center, students can generate not only creative ideas but also practical solutions. Using the same technological tools as major Wall Street firms, the center encourages new problem-solving methods for complex financial issues and creates new opportunities through statistical analysis and modeling.

The Stevens School of Business leads by example as a co-founder of the Center for Research for Advancing Financial Technologies (CRAFT), the first fintech research center funded by the National Science Foundation. CRAFT's focus includes research in artificial intelligence, cryptocurrencies, decentralized finance, quantum computing, cybersecurity, green finance, and many other technologies affecting the fintech industry.

The School of Business continues to create value for its students as the leader of the Management Curriculum for the Digital Era (MaCuDE) initiative, a collaboration of faculty and deans at more than 100 business schools globally, and through the AACSB Digital Transformation Affinity Group, reimagining business education by emphasizing an analytical and digital approach.

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