Digital Faculty

Faculty Expectations About the Future of Higher Education

George Veletsianos, Nicole Johnson, and Jeff Seaman

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DIGITAL FACULTY:

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CONTENTS

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Most importantly, we thank our survey respondents.

EXECUTIVE SUMMARY

The *Faculty Expectations about the Future of Higher Education* report is part of a series of publications resulting from the 2020 Digital Faculty survey conducted by Bay View Analytics (formerly Babson Survey Research Group). The survey included questions investigating the opinions and expectations of faculty members about the future state of teaching and learning in the United States.

The findings reflect the responses of 1,131 faculty from across the United States. The sample is representative of the overall range of faculty in the United States. Respondents completed the survey between November 5 and November 11, 2020.

Key Findings

This study was conducted during the COVID-19 pandemic, which impacted the results reported below. Most faculty are either optimistic or neutral about the future state of higher education. While they hope for better futures, they also have many concerns about their courses, students, and state of the overall higher education system. Findings include the following:

- Faculty are more optimistic and less pessimistic about higher education in the medium-term (5 years) than in the short-term (2 years).
- Nearly 9 out of 10 faculty view the pandemic as having a major impact on the future on higher education,
- About 8 out of 10 faculty report that they expect that the impact on their institution will be long-lasting.
- Other factors that faculty anticipate having a major impact on higher education include online learning, income inequality, and political instability.
- About 60% of faculty expect that teaching and learning would be significantly different by 2025, and most anticipate the ongoing presence of online learning and financial constraints.
- The speculative futures that faculty members describe invite reflection and action.

INTRODUCTION

This report is part of a broader research project called *Digital Faculty*. *Digital Faculty* builds upon previous studies about faculty use of technology, faculty use of social media, and faculty views of the future of higher education. This specific report focuses solely on faculty expectations about the future of higher education. In it, we provide a snapshot of faculty hopes and concerns about the future of higher education.

Faculty members find themselves in a turbulent environment as the significant economic, technological, demographic, political, and social challenges that their institutions have been facing have been accelerated by the COVID-19 pandemic. Much has been written about the impacts of the pandemic on students, faculty, and institutions. And much more has been written about what the future *might* look like and what it *should* look like. Yet, faculty, students, and staff are rarely consulted on what those futures might look like. Except for faculty members who study the future of higher education (e.g., Alexander, 2020; Staley, 2019), speculative futures about higher education informed by faculty voices are scant. This is a problem because faculty members work daily in the enterprise of education and have many practice-informed insights to offer.

The *Faculty Expectations about the Future of Higher Education* report offers some ideas about the kinds of issues that U.S. faculty members are thinking about concerning the future of education. While this report should be seen in the context of the COVID-19 pandemic, it has been informed by broader work in the area. For instance, the 2020 and 2021 Educause Horizon Reports (Brown et al., 2020; Pelletier et al., 2021) highlight that the future of higher education is impacted not only by technological trends (e.g., artificial intelligence) but by other trends as well, such as economic (e.g., curtailment of higher education funding) and political (e.g., perceived value of education).

Even though there is little scholarship examining faculty perceptions, hopes, desires, challenges, and anxieties pertaining to the future of education broadly conceived, there is a large body of literature that examines faculty perceptions of technology and digital education that is informative in this investigation. For instance, in their review of 67 empirical studies related to faculty acceptance of technology Wingo, Ivankova, and Moss (2017) concluded that there is a gap between institutional and faculty perceptions regarding the benefits of online learning, with faculty being more skeptical.

The differences in perceptions are partially the result of tensions, dilemmas, and conundrums that faculty face with the use of technology.

In this report, we present findings of faculty perspectives on the future of higher education. We report on faculty members' sense of optimism and pessimism, their expectations as to the degree to which COVID-19 will impact their institutions, their views of what other factors might impact their institutions, and what they speculate teaching and learning may potentially look like in the future. Finally, we present descriptive statistics and open-ended comments, and highlight areas for future work.

FINDINGS

Greater optimism for the long term

We asked faculty members to report the degree to which they were optimistic or pessimistic about the overall future of higher education over the next 2 years and over the next 5 years (figure 1). Overall, the majority of faculty reported being more optimistic rather than pessimistic. More faculty were optimistic or neutral about higher education over the five-year horizon (77%) than the two-year horizon (69%). We can only speculate as to the reasons behind this difference, but it is likely that faculty may believe that institutions, given their long history of adaptation, will also adapt to COVID-19 over time.
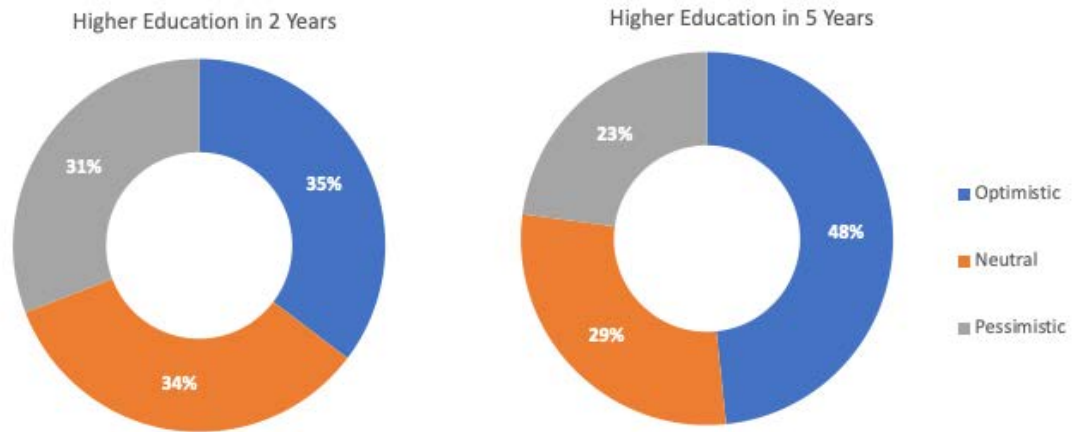
Figure 1. Optimism-Pessimism of the overall future of higher education in two vs. five years

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Faculty see COVID-19 as an important factor among many leading to major impacts

While COVID-19 has guided and monopolized discussions around change in higher education in 2020 and 2021, we see it as both a factor having impacts in and of itself (e.g., in impacting enrolment plans) but also as a factor accelerating and impacting other higher education trends (e.g., adoption of remote/online learning). To that end, we sought to make sense of the factors that faculty anticipate having a major positive or negative impact on higher education over the next two years (figure 2). While the COVID-19 pandemic features prominently in the results, online learning, income inequality, and political instability are also significant factors that the majority of faculty expect to have major impacts on the future of higher education.
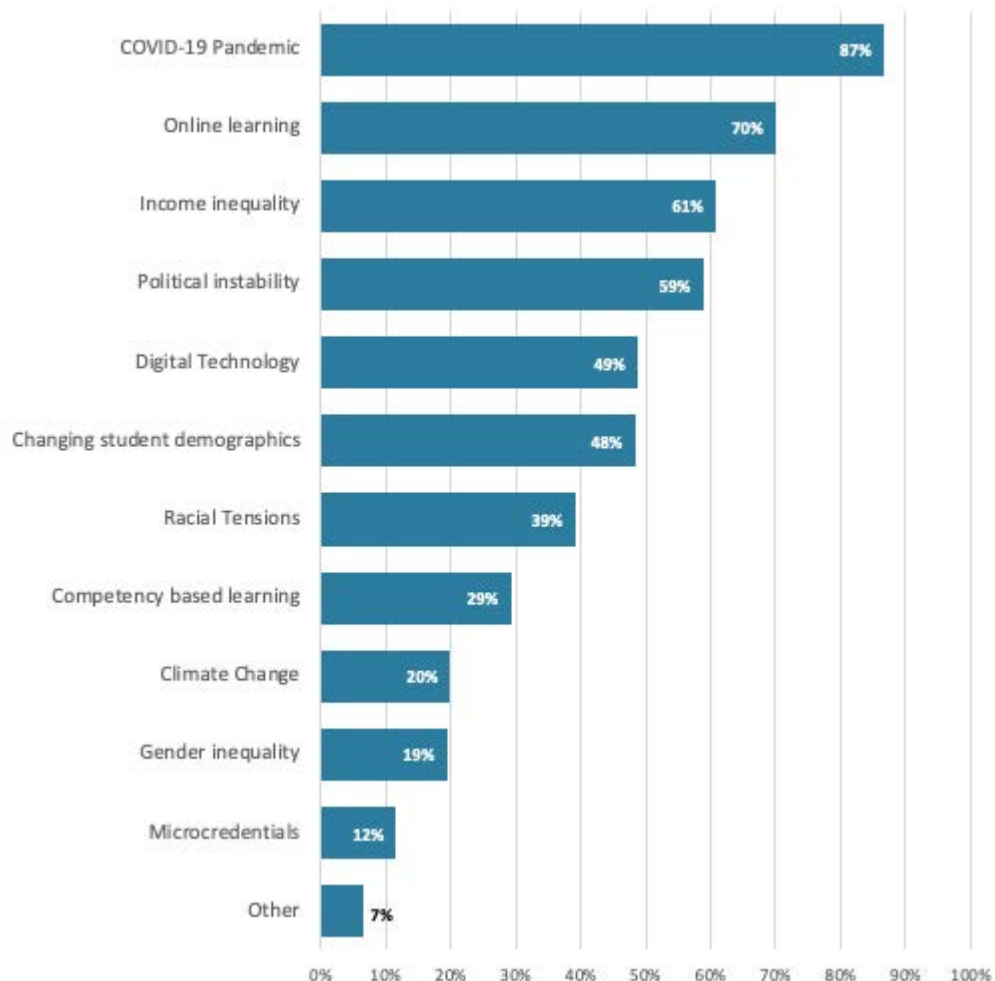
Figure 2. Proportion of faculty that selected each item as having a major impact over the next two years

Next, we asked faculty to indicate the expected nature of these factors on higher education. Figure 3 shows the proportion of faculty that believe whether each factor will have a positive, negative, or mixed impact on higher education over the next two years. More faculty expect that income inequality, gender inequality, climate change, the COVID-19 pandemic, racial tensions, and political instability will have a negative impact on higher education over the next two years than the faculty that believe that those factors will have positive or both positive and negative impacts. For instance, 84% of those faculty reporting that income inequality will have a major impact on higher education expect that impact to be negative. While the picture is less clear for *changing student demographics, microcredentials, competency-based learning, online learning* and *digital technology*, some patterns emerge. For example, while 42% of those selecting digital technology as a major factor consider it to have a positive impact, nearly 52% of respondents consider it to engender both positive and negative outcomes. Faculty may be cautiously optimistic about the impact of these factors on higher education. There is no clear consensus around the potential impact of these factors on higher education, signaling that debates about them are likely to continue. For instance, we've seen much debate about the pros and cons of online learning during the pandemic, and similar discussions around microcredentials are beginning to arise in Canada[1].

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[1] Confederation of University Faculty Associations of British Columbia. (2021). Faculty Voice: On Academic Credibility in Micro-Credentials at BC's Research Universities [White paper]. https://www.cufa.bc.ca/research-issues/micro-credentials/
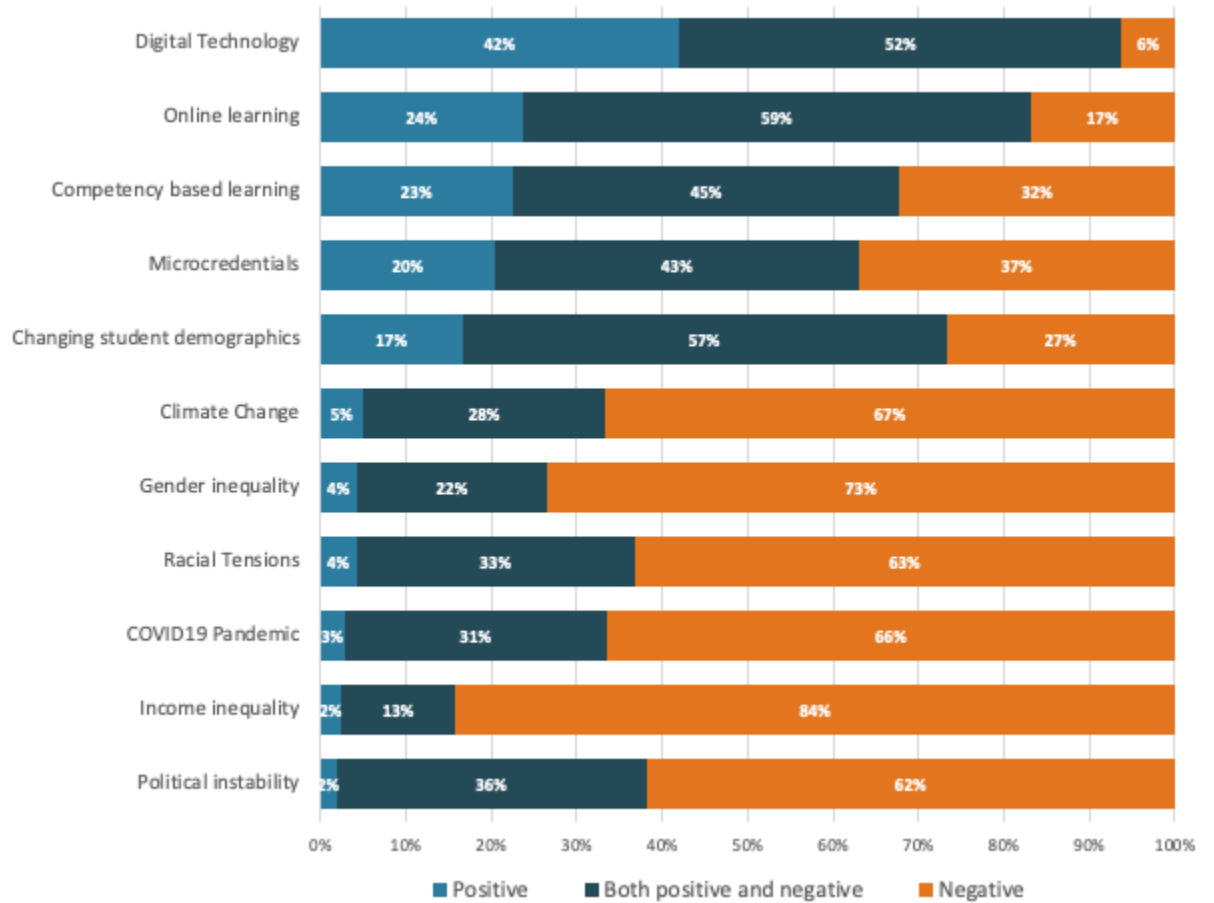
Figure 3. Proportion of faculty that selected each item as having a positive, negative, or both positive and negative impacts on higher education over the next two years

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What might higher education adaptation look like by 2025?

To probe how faculty members might expect higher education to change in the near future, we provided faculty with the following prompt: *It's 2025. Did COVID-19 have an impact on your college/university?* Approximately 80% of faculty members responded in the affirmative, while only 4% of respondents thought that COVID-19 won't have an impact. The rest were uncertain.

We next asked the respondents who noted that COVID-19 would have impacted their institution to describe how their institution would adapt. Figure 4 shows a word cloud visualizing the top frequency words included in their responses. In total, faculty wrote 14,759 words, and the most frequent words used were online (455), students (261), classes (162), faculty (152), and courses (150), indicating that faculty responses focused on topics pertaining to teaching, learning, students, and faculty.

Figure 4. Top frequency words in response to the prompt "What does this adaptation to COVID19 look like [in 2025]?"

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Some comments painted a visceral picture of university education in 2025. The three comments below are illustrative examples

A totally online university experience for students that utilizes resources outside of the university for face-to-face learning experiences such as labs. For instance human and veterinary medical labs will rely on working with veterinary or human medical practices to get hands-on skills. Laboratory work such as biology and chemistry will be done by use of companies such as [virtual lab company] in the student's home.

The multi-year coronavirus downturn in the number of international students and unoccupied dorms, and the acquisition of expensive new technology and online access to research materials have damaged the university financially. This has resulted in an ongoing increase in admissions of less-qualified students who do not need financial aid and a decrease in admissions of bright students who need large scholarships.

The severe financial instability across the nation has led to the reduction of faculty and staff at most universities. Enrollment numbers in STEM disciplines remained steady or increased. Class sizes continue to increase. This has forced more online courses and a split among student demographics. The university partitions students into residential and remote groups. Those with greater financial means are able to attend in-person courses and benefit from the social and professional interactions. Those without are forced into remote learning with limited or reduced interactions. This divide continues to perpetuate the disparity between the haves and have-nots.

Overwhelmingly, the changes that faculty shared do not describe a different organizational structure to the university. Instead, they imagine colleges and universities grounded in familiar ways of organizing higher education, while noting *growth* in some areas (e.g., online courses, class sizes) and *contraction* in other areas (e.g., enrolments, state appropriations). The topics that received most attention were online courses, budgetary constraints, and quality of education. These topics consistently overlapped. For instance, while some viewed the growth of online learning as affording positive opportunities (e.g., a more intentional use of it might address instructional challenges they are facing), others viewed it with as being a vehicle to exploit higher education (e.g., as a way for administrators to pursue cost-cutting measures).

A sample of representative comments to illustrate the ways that faculty approach the future is included below:

[By 2025] I believe that my university would provide more online/remote learning with an increase in course options as well as degree programs. I also believe that graduate programs would have adjusted and now will offer graduate level courses and/or graduate programs online. Additionally, I see my university also having a large instructional design department with college departments having an online coordinator similar to the undergraduate/graduate coordinator positions.

[By 2025, my university] will be closed. We are eating into our almost non-existent endowment. There is no transparency. They have been closing programs and selling the artwork in the museum. Due to the climate at the university, all of the faculty are applying for jobs elsewhere.

[By 2025] we are forced to RETHINK how effectiveness of teaching can be improved without sticking to the traditional classroom setting, a default status that was never challenged prior to COVID-19. It prompts new innovations in teaching that transcend the traditional way of teaching.

In 2020 we had to appease state legislators and the Board of Trustees by providing in-person classes to satisfy their requirements while knowing we would need to pivot to online instruction. This shift has created uncertainty among students in the quality of instruction or the value of instruction. Some instructors have adapted well and developed more effective ways of teaching both online and in-person, while others have struggled and the quality of instruction has slipped accordingly. Hopefully by 2025 we will return primarily to face-to-face instruction.

[I expect] major financial challenges and subsequent realignments that include the erosion of tenure-track and tenured positions, the furloughing or weaning of support staff, shrinking of faculty base, and downgrading of salaries and/or fringe benefits. Culturally, [I expect] a transition to more corporatized approaches to higher education out of fear of financial insecurities (perhaps ironically because the administrative bloat that has come with corporatization of the university is primarily responsible for the unsustainable financial model that universities were running on).

I'm not sure...I suspect more attention to quality of classes (both online and face to face), more attention to student needs/wants for retention purposes, and hopefully an increased understanding of the benefits and

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limitations of online classes, especially from faculty who previously had low or negative opinions about them or who thought they were "easy to teach." I also think that more professors will continue to use some technologies they were forced to learn during COVID.

Slightly smaller residential main-campus undergraduate cohort overall. Some graduate programs eliminated, others significantly redesigned. More micro-credential certificate offerings at both undergraduate and graduate levels. Some graduate certificates combine to build to master's degrees. Smaller faculty teaching a more diverse mix of course delivery methods, and more interaction between main and branch campus faculty and students.

The faculty that had been fighting against online learning no longer have jobs anywhere. The administrators who have been pushing online learning for completely lucrative reasons have all the power at the institution. Learning has fallen off a cliff. The faculty that are still around do what little they can for the few students that are actually there to get an education.

[By 2025] my university has learned new ways to connect with students and constituencies when face-to-face meetings are more difficult. We've learned new ways to build community in the classroom even when we are not face-to-face and new ways to teach online. We've become more vigilant and knowledgeable regarding protecting faculty, staff, and students against sickness.

I'm a nursing professor. Many of our clinicals have now moved to the virtual simulation setting. I do believe that [in 2025], many courses will be able to return to the hospital setting, but continue to utilize virtual simulation for supplemental education.

What does "significantly different" teaching and learning look like in the future?

Rather than relying solely on our expectations of two- and five-year terms as timelines for when change might be observed, we also asked faculty to select a year over the next decade which might reflect a system of higher education in which teaching and learning might be significantly different than the present. About 15% of faculty selected 2022 as that year. Nearly 61% of faculty reported expecting such changes to materialize at some point between the present and 2025. To continue probing into expected impacts we asked them to describe to us what a "significantly different" teaching and learning looks like in the year that they selected.

Responses most often highlighted hybrid forms of teaching and learning, indicating that faculty beliefs that the transition to remote education may have a lasting effect. While some anticipate "greater flexibility" and "interactive online learning modules with integrated feedback," others anticipate "chaos, as universities struggle to adapt and budgets shrink."

Below we include comments that go beyond micro instructional activities in order to speculate what the system of higher education may look like. We purposefully include these to show different perspectives, not because they are representative of all comments. We do so in order to highlight both the opportunities and challenges that faculty anticipate. We urge the reader to view these comments as speculative (not predictive) of futures possible for institutions of higher education.

Prior to reading further, we need to highlight a methodological issue. The reader will notice that the bulk of the comments below appear to paint a dire picture of the future of higher education. This might seem at odds with the broader sense of optimism reported earlier in the report. However, while some participants shared optimistic and positive comments (e.g., one participant wrote that they anticipate seeing "*greater use of virtual and augmented reality scenarios for teaching sciences, history, etc. Increased student populations due to state funded education initiatives*" and another noted that they anticipate *"students tak[ing] responsibility for their own learning"*), most of the detailed responses tended to paint a somewhat pessimistic picture. The following selection therefore is intended to show the nuances of these opinions, both positive and negative.

Academic departments are branded by corporate sponsors. Research and teaching not valued by the "market" (critical scholarship) is excised from the university. "Limited learning" dominates the classrooms - we pretend to teach, students pretend to learn. To get kickbacks, universities commit all courses to use course material provided by online publishers - and it's all subscription. Existing faculty are paid to develop online courses that can be easily reproduced, then the teaching is spread to a pool of underpaid adjuncts, while the existing faculty get cut due to "emergency" budget cuts.

Many colleges will have gone bankrupt. Those that survive have established strong niche markets based on reputation and classroom/lab driven STEM, thought leadership and elite credentials. Teaching is a combination of online and in-class for these institutions, mainly online and large-scale for the others. New learning technologies will make certification-based learning cheaper and more convenient. Teachers will need to specialize in these various market segments, with mastery of online interactivity.

Educational institutions are just beginning to treat students as customers instead of employees. Courses are designed to meet the student's needs instead of the instructors. Training in teaching is valued just as much in higher education as secondary education, in reflection of universities shifting from a focus on research to a focus on education. This training has improved instructor's ability to connect with their students and remain up-to-date with opportunities in technology and industry.

Good teaching and learning will always be fundamental and not change all that much. We will see a continued embrace of UDL. Though our understanding of cognition will continue to evolve, I do not anticipate any fundamental changes (unless, of course, until we have direct neural interfaces a la the Matrix!).

[It] is reasonable to think that the political climate will have shifted more liberal, since many young voters tend to lean that way. This will be reflected in higher education and the issues that are discussed on campus - and even in the way we reform education. Community colleges will probably be free in many states by then, and other colleges will have to adapt. Climate change and education inequalities will become more prominent topics on campus. In terms of classes, many will be moved permanently online, and faculty as well as students will get used to a hybrid mode of learning.

More schools have transitioned to partly or fully online. This transformation will lead to more access to higher education. However, there will be even greater disparity as wealthy, elite schools continue to educate wealthy, elite students, leaving students from lower socioeconomic levels to struggle with online learning, with the lack of support that they might receive in person.

Highly online, automated, asynchronous, impersonal. The only real protections allowed to prevent cheating are highly intrusive tech solutions such as those currently available to watch students take assessments, monitor eye movements and track ambient sound.

I think the majority of students at my institution will continue to be interested in the "college experience," by which they mean face-to-face instruction. Assuming the pandemic has been successfully addressed, we will return to the mode of instruction most faculty and students want. A small number of courses may be run online for the convenience of some students and faculty who prefer that mode.

I think it will be more personalized - students might have more legitimate choices when it comes to building their own curriculum; maybe more online offerings shared with university consortiums that have cheaper tuition vs. options to have more in-person, smaller experiences that cost more.

DISCUSSION

In this report we begin to paint a picture of faculty feelings and opinions about the future state of teaching and learning at their institutions during the COVID-19 pandemic. Notably, what becomes clear in these responses is that faculty expectations are shaped by the impacts that the pandemic is having on technological, social, pedagogical, economic, and political trends. Yet, these factors are often obscured in the current debates around online vs. in-person education. While that debate seems to take centre stage, faculty concerns and aspirations need to be contextualized in the broader environment in which higher education operates. Thus, while faculty may have pedagogical concerns about online learning for example, their concerns about online learning might also be political, social, economic, and so on.

Future research in this area should expand to other populations, specifically students and staff. Furthermore, future investigations should include further disaggregation of results in order to explore how faculty fears, hopes, aspirations, and challenges might vary based on demographics such as gender, geographic location, employment status, etc. For instance, are concerns about climate change and resiliency broadly distributed or are they more pronounced in geographic areas that are already seeing the impacts of climate change? What are the characteristics of those who are seeing online learning with optimism vs. those who are seeing it with pessimism, and what can this tell us about improving education for all students regardless of modality?

The goal of this report isn't to make predictions about what faculty believe higher education will look like. By exploring the futures that faculty anticipate, we invite you to ask: Are we currently on a path towards this future? Is this the future we want? If it isn't, what steps may we take to prevent it from becoming a reality?

METHODOLOGY

The data for this report comes from survey results using a sample of faculty, designed to represent the overall range of all teaching faculty in U.S. higher education. A multi-stage selection process was used for creating the stratified samples.

The process began by obtaining data from a commercial source, Market Data Retrieval, which has over one and a half million faculty records and claims that its records represent 93% of all teaching faculty. All faculty who taught at least one course were selected for this first stage. Individuals were then randomly selected from the master list in proportion to the number contained in each Carnegie Classification, to produce a second-stage selection of teaching faculty. This list was then checked against opt-out lists, as well as for non-functioning email addresses.

Responses were collected from a total of 1,131 higher education faculty. Participants represented all 50 states, Puerto Rico, and the District of Columbia. Participant institutional affiliation was matched to the federal Integrated Postsecondary Education Data System (IPEDS) to retrieve institutional characteristic data allowing for analyses to be conducted by type of institution. The largest group of respondents (52%) were from four-year public institutions, while 29% were from four-year private institutions, and 19% from two-year institutions. The IPEDS data show that 39% of the respondents were from an institution with a "research" Carnegie classification.

The responding faculty are primarily from all size institutions. The largest group (31%) are from institutions with less than 5,000 total enrollments, with 27% at institutions having 20,000 or more students.

Procedures

All data were checked for completeness, missing values, or erroneous codes. All responses entered as 'other' were reviewed to determine if they should also be coded as one of the fixed responses. The only required question for the survey was the one directing respondents to the appropriate survey (faculty in this case). Respondents could skip any other question. Very few respondents skipped questions, but all surveys where less than three-quarters of the eligible questions were completed were omitted from the analysis. Potential participants were provided the option to include their email to receive a copy of a final summary report. Email addresses were separated from the rest of the data prior to any analyses. To ensure confidentiality and anonymity, results are presented in aggregate and summary statistics.

ABOUT THE AUTHORS

Dr. George Veletsianos is Professor in the School of Education and Technology at Royal Roads University, in Victoria, B.C., Canada. He holds the Canada Research Chair in Innovative Learning and Technology and the Commonwealth of Learning Chair in Flexible Education. His research examines people's experiences and practices surrounding online and flexible learning, networked participation, and the future of higher education. George has authored or co-authored more than 80 peer-reviewed papers and book chapters, and his latest book is *Learning Online: The student experience* (Johns Hopkins University Press, 2020). You can read more about George on his website (http://www.veletsianos.com/).

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Dr. Jeff Seaman is the Director of Bay View Analytics. He created and ran the Computing Resource Center and served as Associate Vice Provost for Computing for the University of Pennsylvania and as Chief Information Officer for Lesley University. He has been researching the impact of technology on higher education and K-12 for over a decade, beginning with comprehensive national studies of technology use in U.S. Higher Education.

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