Inequities in Public Scholarship during the Pandemic: Who Made Predictions about the Future of Higher Education?

Kyle Long
American University in Dubai

Bernhard Streitwieser
George Washington University

Joy Gitter
Hanover Research

Throughout the Covid-19 pandemic, commentators in broadly accessible media have offered a surfeit of predictions about the future of higher education. Due to the absence of accountability mechanisms, however, the accuracy of these claims has been heretofore unknown. Research shows that op-eds and other forms of public scholarship influence public policy, heightening the significance of predictions. This paper asks who makes predictions about higher education, in what venues they issue them, on what topics they make predictions, and how accurate they are. It answers these questions by drawing from an original data set of 91 distinct predictions issued by 22 unique authors in 31 separate texts across a 19-month time span from March 2020 to October 2021. It finds that predictions most often appeared in op-eds written by senior academic white men in higher education trade journals. More than half of predictions could not be evaluated a year or more after they were first issued. Still, predictions with determinable outcomes tended to bear out accurately. Enrollment patterns and teaching modalities were the most common topics. Women and people of color were significantly under-represented among predictors. The paper concludes with suggestions for improving equity and performance.

Keywords: Covid; academics; women; people of color; representation.

Introduction

Scholarship during the Covid-19 pandemic yielded a glut of predictions about the future of higher education. In national news outlets, domestic and international trade publications, and blogs, experts and non-experts alike forecasted a wide range of changes in the sector. They prognosticated on how the pandemic would impact enrollment, mobility, and modality as well as financing, technology, and curricula. Yet it is unclear which and how many from this dizzying array of predictions were hitting the mark. When communicating with the public, academics experience considerably fewer accountability measures than when they communicate with peers in scholarly journals (Posner, 2001). Indeed, even evaluation of publicly espoused predictions is rare. When it does occur, the results are superficial, providing only a high-level account of general themes (June & O'Leary, 2021), not specific predictions from individual authors.

The absence of rigorous evaluation of publicly issued predictions is a problem for three reasons. First, pandemic-inspired predictions have turned out to be wrong in many

domains, from housing to jobs to state budgets (Demsas, 2022). We should not expect different results in the higher education sector. Second, inaccurate predictions can still influence public policy. While earlier scholars doubted the impact of academic discourse on public opinion and public policy (Posner, 2001), more recent research has shown that scholars can indeed move the needle when communicating with the public through op-eds (Coppock et al., 2018). Third, without measurement, there can be no improvement. Higher education commentators can better serve the public by reflecting on their predictive performance.

Our paper identifies and analyzes predictors and their predictions about higher education made during the first year and a half of the Covid-19 pandemic in the United States. While journalists, policy analysts, and junior academics, among others, also offer predictions, we find that prediction-making is generally a pursuit of senior academic white men. They typically opine about topics like enrollment trends or technology changes in open-access higher education trade journals such as University World News. Their predictions often appear incidentally in op-eds prompted by the latest pandemic-related news concerning higher education. But it is difficult to determine the quality of these predictions. Indeed, it was still too early to judge the accuracy of more than half of the predictions made during our data collection period after a year had passed. In instances where we can determine their accuracy, predictions have turned out correct at an astonishingly high rate of 83 percent.

Our findings contribute to national conversations about public trust in higher education as well as diversity, equity, and inclusion. We discover that non-academic thought leaders make more predictions in mainstream media than academic experts who communicate more regularly in trade publications. Consequently, outsiders have greater opportunity to influence the national narrative about higher education at a time when the public is losing confidence in the sector. Further, we notice the relative absence of women and people of color from the prediction phenomenon. The dearth of predictions by experts with these perspectives limits the quality of information the public receives. We conclude with suggestions for improving equity and overall performance vis-à-vis publicly espoused predictions.

Literature Review

This paper contributes to a relatively small but fast-growing literature about higher education and the Covid-19 pandemic. Since 2020, many peer-reviewed journals have dedicated special issues to this subject (Burkholder & Krauskopf, 2021; Davenport & Holland, 2021; Ghosh & DeMartino, 2022b; Green et al., 2020; Ho Mak & Montgomery, 2021; Huang et al., 2022; Husain, 2021). Bozkurt (2022) used data mining to identify three broad themes in Covid-19 higher education research: "(1) educational crisis and higher education in the new normal: resilience, adaptability, and sustainability, (2) psychological pressures, social uncertainty, and mental well-being of learners, and (3) the rise of online distance education and blended-hybrid modes" (1).

But scholars have used the lens of the global pandemic to explore nearly all aspects of higher education from global knowledge production (Ghosh & DeMartino, 2022a) to online teaching (Chan et al., 2021; Pokhrel & Chhetri, 2021) to student perceptions (Choi Fung Tam, 2022; Sharaievska et al., 2022) to well-being and support (Slack & Priestley, 2022; Aquino & Scott, 2022) to students' experiences with racism and discrimination (Koo et al., 2023) to financial aid (Gurantz & Wielga, 2021) and enrollment challenges (Prescott, 2021). Researchers have also examined the impact of the pandemic on specific types of institutions like historically black colleges and universities (HBCUs) (Lucas & Felton,

2022) and community colleges (Floyd et al., 2022). Limited mobility, especially during the early phases of the pandemic, inspired calls to rethink campus internationalization policies (Ammigan et al., 2021; Whatley & Castiello-Gutierrez, 2022). Indeed, a particularly popular approach in this emergent tradition acknowledges the need to innovate or reimagine higher education in the wake of the pandemic (Long, Streitwieser, & Fisher 2021; McKeown et al., 2021; Nakra, 2021; Neuwirth et al., 2021).

The pandemic has also afforded an opportunity to extend theory. Numerous analysts have observed policy responses exacerbating the inequalities engendered by neoliberalism (Ahmed, 2022; Jayasuriya, 2021; Le Grange, 2020; Pan, 2020) or "disaster capitalism" (Vujnovic & Foster, 2022). In the United States, the disparate impact of the pandemic on communities of color extends to the implications of university reopening plans on racial equity (Harper, 2020). We are also learning more about psycho-social factors. Research shows that higher education students are more susceptible to psychosocial problems and experience racism at higher rates than the general public and that the pandemic has exacerbated these issues (Akin-Odanye et al., 2021; Koo et al., 2023). Studies show that peer and family support can help mitigate the harmful effects, but that virtual learning environments have typically engendered conditions of isolation, especially for rural and international students (Omodan, 2020; Wilczewski et al., 2021).

Methods and sources vary widely, but there are not many surprises. Interviews with students, faculty, and staff are common (Bergerson & Coon, 2022; Kee, 2021; Knight et al., 2021; Oliveira et al., 2021; Yu, 2021). These populations also constitute survey samples for research on how the pandemic has impacted teaching and learning (Johnson et al., 2020; Tsang et al., 2021) or the student experience (Aristovnik et al., 2020; Aucejo et al., 2020; Martin et al., 2021). Others leverage large-scale datasets to analyze topics ranging from student enrollment (Baer, 2021) to institutional responses (Marsicano et al, 2020) to the impact of campus closures on mortality rates (Mangrum & Niekamp, 2022). Reliance on secondary sources is also common, especially for discourse analysis (Belluigi et al., 2022; Kee-Ming Sia & Abbas Adamu, 2021; Kele & Mzileni, 2021).

The preceding review demonstrates that, since 2020, studies examining the impact of Covid-19 on various aspects of higher education have highlighted themes such as resilience and adaptability in education, psychological pressures on learners, and the rise of online and blended learning. There is a gap in the literature about public scholarship during the pandemic. Despite evidently growing interest in Covid-19-inspired higher education research, we are unaware of any studies that have explored academic communication about the sector with the public during the pandemic, let alone attempts to analyze predictors or evaluate predictions about the future of higher education.

Conceptual Framework

The purpose of the conceptual framework is to introduce ideas that will assist analysis and discussion of the findings. In this section, we therefore introduce the concepts of professional legitimacy, public intellectuals, thought leaders, experts, forecasting, and foxes/hedgehogs.

There are power dynamics inherent in public scholarship. Institutionalized features of the academy influence who among its members communicates with lay audiences. Writing for the public is an important way to enhance professional legitimacy—a condition that reflects one's alignment with professional norms (Gonzales & Terosky, 2016)—especially if the message contains policy implications (Sommer & Maycroft, 2008). Professional legitimacy is how academics obtain and exercise power. For example, a timely op-ed in

The New York Times can amplify a Congressional hearing, leading to increased coverage of a researcher's ideas. This shrewd demonstration of the potential for policy influence could appeal to funders, which in turn could bring in more resources to an institution, leading to still greater professional legitimacy for that researcher. Yet, studies show that women, people of color, and non-tenure track faculty perceive constraints on their abilities to achieve professional legitimacy that their tenured white male counterparts do not (Davis & Maldonado, 2015; De Welde & Stepnick, 2015; Lester, 2011; O'Meara et al., 2018). For most faculty, professional legitimacy comes primarily from the volume and impact of original research in peer-reviewed publications, and to a lesser extent teaching (Gonzales & Terosky, 2016). For those belonging to non-dominant identities, other opportunities for professional legitimacy are beyond the pale.

Works on academic communication with the public and philosophy of science provide helpful concepts to analyze predictions (see Table 4 in the Appendix for a definition of the key terms used in this paper). Texts in these fields assist in understanding who makes predictions and why, whether prediction is possible, and if so, how to do it well. They also show how to evaluate predictions, among other uses. Academic communication with the public has traditionally been the purview of public intellectuals. These individuals, the jurist Richard Posner (2001) tells us in his authoritative study, "address nonspecialist audiences on matters of broad public concern" (35). Examples of current public intellectuals include Cornel West, Jill Lepore, and Larry Summers. The public looks to them to identify and synthesize trends, to link to relevant academic research, and to tell us what will happen next. Public intellectuals build trust with their audiences by staking their reputations on their claims (Parks & Takahashi, 2016). This kind of work has therefore been regarded as a form of public service.

But scholars have increasingly observed that the influence of public intellectuals is waning (Drezner, 2017; Murphy & Costa, 2019). According to the political scientist Dan Drezner (2017), this is happening because the marketplace of ideas has evolved into an industry of ideas. This new public sphere, he contends, is bigger, louder, and more lucrative than ever before. With the advent of the internet, the number of platforms, forums, and outlets eager to broadcast provocative ideas has exploded. And so, today's thought leader has come to replace the public intellectual of yore. Drezner further distinguishes thought leaders from academic experts, yet another group declining in public esteem (Nichols, 2017). Experts are less effective in the marketplace of ideas, Drezner argues, because they tend to focus on why policies will not work. Thought leaders, on the other hand, are eager to explain to the public why their idea will work. Drezner derisively refers to this latter group as "intellectual evangelists." Today's thought leaders pursue the same audience as public intellectuals always have, but now they have a much more singular agenda. Examples of these new evangelists include figures like Adam Grant, Clayton Christensen, and Tom Friedman.

The philosophy of science includes a tradition exploring the possibility of prediction (Forster, 2008). On one end of the spectrum is chaos theory, which posits that the world is too random and uncertain to render prediction a viable intellectual pursuit. In other words, a true science of prediction is not possible. On the other end, probability theory contends that we can apply mathematical reasoning to available information to generate a numerical likelihood of something happening. The science of prediction—also known as forecasting—has become a fixture in the physical sciences, especially in fields like meteorology. And even though the weather forecast may inspire us to leave our umbrella at home on the wrong day, predictions of the physical world can reach remarkable levels of accuracy. The same cannot be said for the social world, where the variables are

exponentially more diffuse, and thus the potential for improvement is significantly more limited (Makridakis et al., 2020). Even the big data revolution, which has drastically increased the availability and volume of social data, has had a limited impact on forecasting events in our social world with any measure of greater accuracy (Hosni & Vulpiani, 2017).

But that does not mean that forecasting in the social world is impossible or futile either. Research shows that some individuals are particularly good at making predictions and can improve their abilities to prognosticate over time (Tetlock & Gardner, 2015). A groundbreaking study at the dawn of the 21st century demonstrated that the average expert was no better at predicting political outcomes than a dart-throwing chimpanzee (Tetlock, 2005). But later works since then have been able to identify that certain non-experts who use a three-part forecast-measure-revise technique can significantly out-predict experts who may even have access to better information. Unfortunately, this rigorous approach is practiced exceedingly rarely. Even though prediction is "the stock in trade of the public intellectual" (Posner, 2001, 128), consumers of forecasting do not generally demand accuracy (Tetlock & Gardner, 2015). Consequently, there is no sustained interest in measuring the accuracy of predictions. Nor do the predictors therefore have any great incentive to revise their forecasts. Consumers of their predictions are in turn less able to rely on the validity and veracity of suggested prognostications. In short, if we cannot feel confident in the validity of the predictions made by our so-called intellectuals and experts, then what value can they really hold for us?

In the absence of measurement, we still have some expectations for the relative performance of public intellectuals and thought leaders. There are decades of peer-reviewed research about making informed predictions (i.e., forecasting) and even a large-scale government-funded predictions tournament. Scholar Phil Tetlock and journalist Dan Gardner (2015) draw from these sources in a bestselling book about predictions. In it they employ a classic metaphor when exploring who is better at predicting the future: foxes or hedgehogs. Foxes know many little things, while hedgehogs know one big thing. According to the authors, foxes are much better predictors. But hedgehogs are better storytellers and are more likely to say that something definitely will or will not happen. Counterintuitively, Tetlock and Gardner found that when authors who are hedgehogs predicted outcomes in their area of expertise, their accuracy declined. Yet more vexing, there is even an inverse correlation between fame and accuracy: the more famous an expert is, the less accurate he or she became. Tetlock evaluated predictions that included confidence intervals and timelines. But predictions issued in the public domain do not often have these characteristics. This is where our study comes in.

Research Questions

Our project stems from 'Re-imagining Higher Education Worldwide after Covid-19,' a series of three internally funded seminars held in Fall 2020 and Spring 2021. The seminars provided a platform for higher education experts in different parts of the world to reflect on how the pandemic would impact the future of the sector. Getting a taste of the predictions made by our expert participants, and the audience's reaction to them, laid the seed for our subsequent study and is the subject of this paper. The predictions study that resulted from the initial seminar series includes four broad questions:

1. Who makes predictions about higher education to nonspecialists?
2. In what venues do they make these predictions?
3. On what topics do they make predictions?
4. How accurate are predictions about higher education inspired by the pandemic?

Methodology

Constructing the Data Set: Sources and Methods

To answer these questions, we constructed a data set of all the predictions we could find. Construction of original datasets out of news media is an increasingly common practice in education research, especially for frame or discourse analysis (Coe & Kuttner, 2018; Coe et al., 2020; Long & O'Connell, 2022). This was a multi-stage process. We define a prediction as a statement expressing that an occurrence, phenomenon, or change would or would not happen in the future. When initially collecting predictions, we erred on the side of inclusivity and gathered as many statements that approximated this definition as possible. We used a combination of snowball and purposive sampling to generate an initial corpus of English language texts from the popular press and higher education trade journals that included predictions about the future of higher education intended for nonspecialists, i.e., public consumers of higher education content. Because their primary audience is specialists, individuals with extensive knowledge, expertise, and experience in the higher education industry, we excluded peer-reviewed journals. We also excluded podcasts because they generally do not come with transcripts. We conducted Google searches for relevant terms such as "Covid-19," "pandemic," "predictions," "impact," "higher education," etc. We also sought out predictions from specific analysts known to address higher education issues publicly, including Philip Altbach, Anthony Carnevale, and Scott Galloway, among others.

After compiling an initial list of texts, we then identified the portions of them that potentially contained testable predictions. Approximately one in four texts contained a prediction. In instances where a single text included multiple predictions, we created separate entries for each prediction. This resulted in an initial data set of 115 entries. Next, we cleaned the data set by removing entries that did not pass a basic definitional test of a prediction after further scrutiny. We did not require entries to have confidence intervals or timelines or even unambiguous verbiage. Instead, we put to each entry a simple question: is this a prediction? A prediction states that some occurrence, phenomenon, or change would or would not happen in the future. Claims that did not meet this definition and appeared unverifiable due to a lack of specificity or testable statement were excluded. Through this process, we removed 24 entries, more than a fifth of the original data set. Discarded claims were unverifiable and often comprised opinions, summaries of trends or popular opinion, advice, statements of fact, or a call to arms, rather than a prediction. Commentators often discuss how trends could play out in the future, but ultimately refrain from committing to a single expected outcome. For example, the following claim was removed from the dataset because it fails to specify what will happen in the future: "It is likely that heightened student awareness and organizing, and some bitterness and estrangement, will be ongoing legacies of the pandemic period" (Marginson, 2021).

Next, we categorized the entries in multiple ways. The first step was to identify the content area of the prediction, which we then used to categorize the predictions' content into codes. We applied one of seven inductive codes to each prediction that allowed us to sort them by shared content. Based on the data, we developed the following codes (Table 1).

Table 1
Content Area Codes and Descriptions with Sample Predictions

Content Area Code	Code Description	Sample Prediction
Corporate entities	Predictions that address the role of the private sector and nontraditional higher education providers.	"Enrollments in Google Career Certificates and Microsoft's global skills initiative, among others, will increase" (Dennis, 2021).
Enrollment	Predictions pertaining to the future of student demand either in the United States or globally.	"The economic recovery between now and 2030 will only increase demand for postsecondary education" (Carnevale, 2021).
Finance	Predictions that consider changes to higher education institutions' or systems' revenues and/or expenditures.	"It is likely that there will be a highly restrictive fiscal climate, because of the public debts incurred by the government during the pandemic. The potential for one more autumn shutdown of the country, and the universities, is real" (Marginson, 2021).
Health	Predictions about the implementation of higher education policies and/or practices to minimize the community impact of Covid-19.	"Students, faculty and staff will travel with Digital Health passports, verifying their COVID-19 test results" (Dennis, 2021).
Inequality	Predictions that highlight the widening gap between privileged and underprivileged higher education systems and institutions in the United States or abroad.	"Because of severe economic downturns as a result of the pandemic, research funding will probably shrink further in lower- and middle-income countries, where it is already limited. An exception may be China" (De Wit and Altbach, 2021).
Landscape	Predictions that concern the viability, market position, or governance of a large collection of institutions.	"The movement toward economic transparency and accountability is gradually shifting from the degree level toward the program level as well. We will almost surely end up with more transparency and accountability on completion, employment, and earnings for all postsecondary programs" (Carnevale, 2021).
Online/hybrid	Predictions about the future of digital modalities in higher education.	"We doubt that there will be a profound and lasting 'technological revolution' in higher education. But the COVID-19 crisis will significantly expand the use of distance education" (Altbach and De Wit, 2020b).

We then generated categories for author and source types as well as timelines and verbiage. We determined role categories for prediction authors and applied labels to each individual author and author combinations, borrowing "thought leader" (e.g., Scott Galloway) and "expert" (e.g., Anthony Carnevale) from the literature and adding

"journalist" (e.g., Jon Marcus) and "aspirant" (e.g., Scott Van Pelt). We apply the "thought leader" label to individuals employed in the private sector or who regularly advocate "disruptive innovation" in higher education. In our dataset, "experts" are tenured research faculty or senior leaders of higher education organizations. Notably, we observed individuals beyond thought leaders and experts making predictions. We therefore developed two additional categories inductively. The "aspirant" label describes non-tenured or practice-oriented faculty as well as mid-level researchers at education-oriented think tanks or international organizations. We apply the "journalist" label to individuals employed by media organizations. None of the authors in our data set qualify as public intellectuals as defined above. When an expert made a co-authored prediction (i.e., alongside one or more aspirants, experts, and/or journalists), we labeled that category "Expert+."

We coded each prediction with Y or N to denote if it included a timeline or not. For example, Simon Marginson provided a timeline in this prediction: "The overall position for international education is that it's going to take a massive hit. I think that we're looking at at least a five-year recovery period in terms of the global numbers of people who move between countries for education" (quoted in Bothwell, 2020). Further, we coded each prediction's verbiage as "definite" or "indefinite." Predictions in the former category definitively state that something will or will not happen. Indefinite predictions state that something will "probably" occur, is "likely" to happen, "could" transpire, or "might" unfold, etc.

Finally, we evaluated each prediction by assigning it one of four outcomes. First, we determined whether the prediction was bearing out accurately or second, whether it was demonstrably false. For entries in which we could not evaluate the outcome, we noted third, whether this was due to a lack of information (i.e., there was not enough data) or fourth, because the prediction itself included a timeline—implicit or explicit—beyond the evaluation period (i.e., it was too soon to tell). We also used a four-phase system to evaluate the predictions in September 2022 and March 2023. The first phase involved graduate research assistants who helped us to locate evidence that supported or refuted the predictions before assigning one of the four evaluation outcomes noted above. In the second phase, we solicited the pro bono services of a professional higher education research analyst from the private sector who checked the work of the graduate student assistants. Finally, in our third and fourth phases, the study's authors reviewed the overall evaluation results again in September 2022 and March 2023. In September 2022, authors reviewed all predictions in the dataset. At that time, they determined that 49 predictions (over half of the full dataset) were "too early to tell" or there was "not enough data" to conclude its accuracy. Six months later, they re-evaluated those same 49 predictions to determine if enough additional time had passed or if there were newer data sources available. This process resulted in updates to evaluations of six predictions: two predictions changed to either "not enough data" or "too early to tell" and four changed to either "bearing out accurately" or "demonstrably false."

Findings

The final data set included entries for 91 predictions. Each entry included the prediction, the prediction category, the title of the text, the link to the text, the publication source, the category of the publication source, the publication date, the name(s) of the author(s), the number of authors, the author type, timeline, verbiage, the evaluation, the evaluation evidence, and the link to the evaluation source.

The 91 predictions resulted from 31 texts that were published in fairly even intervals across a 19-month time span from March 2020 to October 2021. Fifteen texts first appeared in 2020. Sixteen texts surfaced in 2021. Texts came from 20 unique source publications. Nearly two-thirds (64.0 percent) of predictions appeared in trade journals. EdSurge (2), Inside Higher Ed (3), The Chronicle of Higher Education (2), Times Higher Education (2), and University World News (7) all had more than one text in the database. More than a third (34.5 percent) of all predictions appeared in University World News. Approximately one in five predictions (22.0 percent) appeared in the popular press (e.g., Forbes, New York Magazine, etc.). Blogs (8.8 percent) and NGO reports (5.5 percent) accounted for the remaining predictions.

Most texts (67.8 percent) and predictions (64.8 percent) were authored by a single individual. More than a quarter of the predictions (26.4 percent) were authored by two individuals. Less than a tenth (8.8 percent) of the predictions came from three individuals writing together. No texts—and therefore no predictions—were authored by more than three individuals. The data set included predictions from 22 unique authors. In four of the texts, the individuals who issued predictions did not have a byline but were instead quoted as experts. We treated them as authors because they were authors of the prediction, even if they did not author the article in which the prediction appeared.

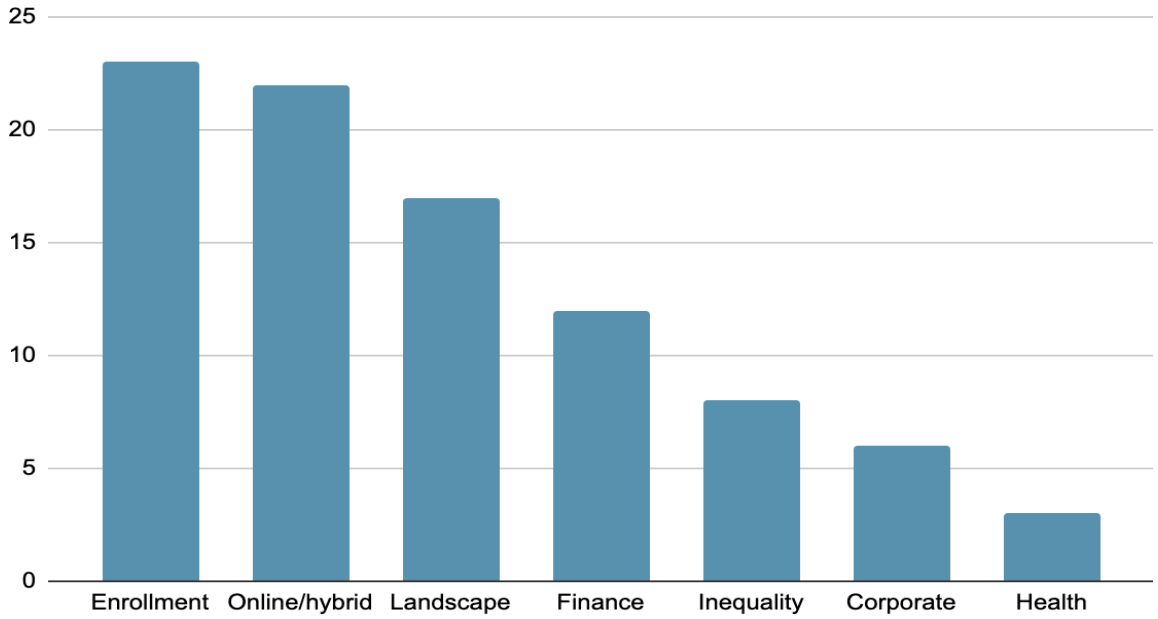
Most predictions were made—at least in part—by experts. They were involved in 73.6 percent of predictions. A plurality of predictions was made by individual experts (38.5 percent). The next most common author type, accounting for 35.2 percent of predictions, came from the Expert+ group (i.e., co-authored predictions that included at least one expert). Eighty-four percent of expert and Expert+ predictions appear in trade journals. Only four predictions across these two groups appeared in the popular press. Thought leaders made nearly a quarter (24.2 percent) of all predictions. All thought leaders in the data set worked alone. Their predictions were over-represented in the popular press. Of the 20 predictions in this source type, 14 were issued by just two thought leaders—Brandon Busteed and Scott Galloway. Michael Horn was the only thought leader in our data set to issue predictions in a trade journal—EdSurge.

The average number of predictions per text was 2.9. There is generally no discernible difference in the number of predictions by the number of authors. However, two different solo-authored texts each included a data set maximum of 11 predictions. Less than a quarter (22.7 percent) of the predicting authors were women. Only one text had a woman first author—Marguerite Dennis. Predictions pertain to both domestic U.S. higher education and global higher education but skew toward the former. Most authors were based in the United States (81.8 percent).

Relatively few predictions included a timeline (7.7 percent). Definite verbiage (e.g., "will") was more common in predictions (79.1 percent). However, even when predictions stated that something definitely will happen, they lacked specificity. For example, five predictions stated that a phenomenon "will increase" without qualifying how much. Indeed, it is characteristic of this dataset for a prediction to state definitively that a phenomenon will happen but without a timeline and without specifying by how much.

Authors made predictions on a variety of topics. A plurality (25.3 percent) of predictions pertained to enrollment. Of these, nearly three-quarters (73.9 percent) concerned international enrollment. The remainder (26.1 percent) addressed domestic U.S. enrollment. Predictions about online/hybrid modalities (24.2 percent) as well as about the broader landscape for higher education (18.7 percent) were also common.

Figure 1
Distribution of Predictions by Category



Overall Accuracy

Our analysis found that a plurality (41.8 percent) of the 91 predictions bore out accurately (see Figure 2). Although, when considering only predictions with determined outcomes (i.e., bearing out accurately or demonstrably false), this figure rises to 82.6 percent. An example of an accurate prediction came from Philip Altbach and Hans de Wit. On May 2, 2020, they predicted, "It is likely international students will postpone starting their studies as long as institutions only offer online instruction." According to later IIE data, indeed, international student enrollments in the United States fell by 15 percent in Fall 2020 when most universities were primarily online. However, by Fall 2021, when they had reopened, enrollments rebounded, increasing by four percent. Enrollments of new international students increased by 68 percent.

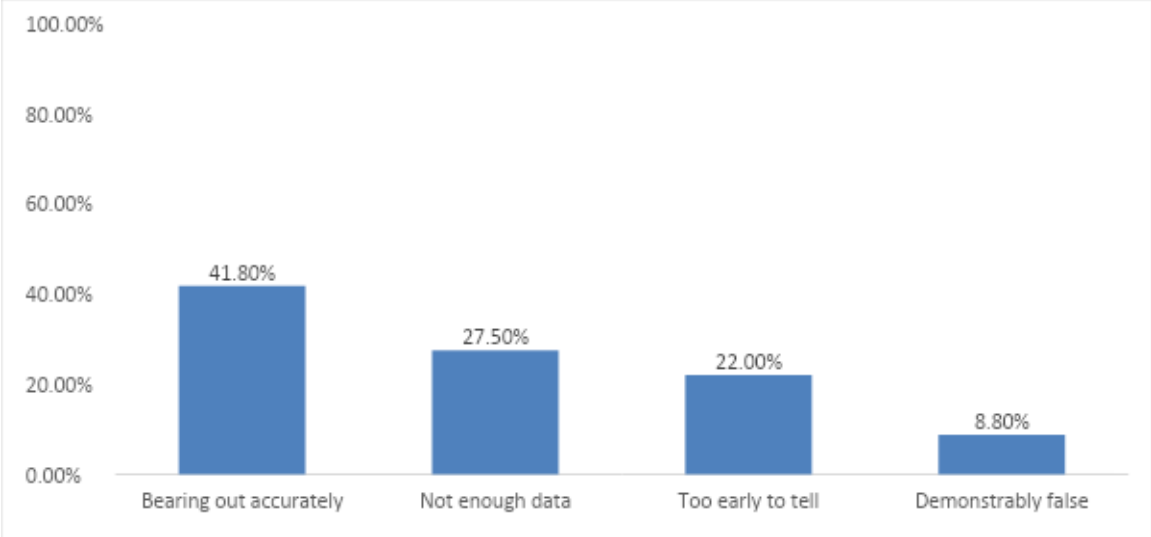
Only 8.8 percent of predictions turned out to be demonstrably false. An example of an inaccurate prediction came from Richard Garrett. On January 12, 2021, he said to "Expect a fall 2021 enrollment recovery, especially at four-year schools." According to National Student Clearinghouse data, however, Fall 2021 enrollment declined by 2.7 percent for all students. Further, enrollment declined at four-year schools, as well. At public four-year institutions, enrollment dropped by 3.0 percent. At private nonprofit four-year institutions, enrollment fell 1.6 percent. At private for-profit four-year institutions, enrollment tumbled 9.3 percent.

More than half of all predictions in our data set could not be fully evaluated, either because it was too early to tell (22.0 percent) or there was not enough data (27.5 percent). An example of the former comes from Carnevale et al. (2020). On July 8, 2020, they predicted that "[many colleges will] scale back the support services that many disadvantaged students need." Institutions report data to IPEDS, a system that collects data from all institutions of higher education and technical and vocational schools that receive federal student financial aid, on academic and institutional support as well as student service expenditures. However, at the time of evaluation, data for FY 21 were not yet available and it was therefore too early to tell if this prediction was bearing out accurately or was demonstrably false.

An example of a prediction that could not be fully evaluated due to a lack of data came from Marguerite Dennis, who on January 9, 2021, predicted that "an increasing proportion of higher education enrolments will come from company-sponsored, short-term certificate programmes and boot camps." We were unable to locate a credible data source for company- sponsored, short-term study to confirm or deny the accuracy of her prediction.

Figure 2

Distribution of Overall Prediction Outcomes



Accuracy by Author Type

There is essentially no impact of author type on accuracy (see Table 2). Single-author experts were somewhat more likely to be correct than co-authoring experts (i.e., Expert+) or thought leaders, but the difference is not significant.[1] Among the three author categories, co-authoring experts were most likely to make predictions that cannot be evaluated in the short- term. Thought leaders were most likely to make predictions that can be evaluated now. The Expert+ group had a minor advantage in avoiding being wrong.

Table 2
Distribution of Prediction Outcomes by Author Type

Author Type	Accurate	False	Too Early	Lacking Data
Expert (n=35)	45.7%	11.4%	20.0%	22.9%
Expert+ (n=32)	37.5%	3.1%	28.1%	31.3%
Thought leader (n=22)	45.5%	13.6%	13.6%	27.3%

Author types vary when considering specificity of language. Expert+ predictions were more likely to use indefinite language. Nearly two in five (37.5 percent) of their predictions used "might," "likely," "probably," etc. compared to 11.9 percent of the rest. Thought leaders were the opposite. There was only one instance of a thought leader using indefinite diction. Ten of 19 (52.6 percent) indefinite language predictions bore out accurately. This represents a higher percentage than definite language predictions that bore out accurately (38.9 percent).

Accuracy by Content Category

Table 3 shows the outcomes of the two highest volume categories. Predictions about enrollment were more likely to be correct (52.2 percent) than the aggregate of predictions in other categories (38.2 percent), but the difference is not significant.[2] Thirty percent of enrollment predictions require more time to pass before evaluating their accuracy. This outcome contrasts sharply with the aggregate of all other predictions, only 19.1 percent of which are too early to tell. Only one (4.4 percent) of the enrollment predictions fell into the not enough data category, compared to 35.3 percent of other predictions. Notably, five of the seven predictions in the entire data set that included timelines concerned enrollment.

Only 18.2 percent of predictions about online/hybrid developments bore out accurately. The aggregate accuracy rate of predictions in all other categories was 49.3 percent. This category's comparatively low accuracy rate is due in large part to the fact that nearly three in four of its predictions required data to verify that was not publicly available at the time of writing. Still, none of the online/hybrid predictions were demonstrably false either. Notably, no predictions about online/hybrid issues included timelines.

[1] The Kruskal-Wallis test is a nonparametric alternative to one-way ANOVA. It is useful for determining the significance of variance for three or more groups with categorical data. This test showed no significant differences among the three author types, $H(2, n=89) = 0.9864$, $p = .61066$.

[2] Chi-square = 1.373, $p = .241304$.

Table 3
Distribution of Prediction Outcomes in Select Categories

Category	Accurate	False	Too Early	Lacking Data
Enrollment	52.2%	13.0%	30.4%	4.4%
Online/hybrid	18.2%	0.0%	9.0%	72.7%

Four prediction categories had accuracy rates of 50 percent or higher: health (67 percent), finance (50 percent), inequality (50 percent), and corporate entities (50 percent). However, these were generally lower volume categories.

Discussion

The Covid-19 pandemic—especially prior to the development of vaccines—was a trepidatious one for higher education. It was hard to know if some changes would be fads or take root. This meant there was much to discuss. The ideas industry that had sprung up in the years prior created an infrastructure for those discussions to occur increasingly in public view. But the ideas industry has changed the way specialists communicate with nonspecialists.

A feature of many predictions made in the public sphere is that they are not capable of being evaluated for many years or are being made in areas where there is no expectation for measurement. But when they are testable, they are often right. This finding contradicts Tetlock's claims to the contrary. Notably, though, our predictors operated under different conditions (e.g., no confidence intervals or timelines). Experts in our data set admit uncertainty, primarily through indirect verbiage. They hedge their bets. Further, their predictions are rarely the aim of the text, but rather a by-product. Still, they operate as a mirror into their level of confidence.

Our findings also indicate a splintering along fox and hedgehog lines. The general public—to the extent that it hears any predictions about the future of higher education—hears them more from thought leaders than academic experts. That is because, as our findings indicate, the popular press publishes thought leaders; trade journals publish experts. Publication venues reflect incentive structures. Experts in research professorships earn greater pay and prestige by publishing for other experts in peer-reviewed journals. Thought leaders outside academic research roles earn acclaim by disseminating their ideas to broader audiences. Crossover is rare and typically only occurs when experts have advanced to the highest levels of their fields. In these instances, traditional academic incentives are no longer as potent and reaching new audiences becomes more appealing. This means that experts do not really communicate to the mainstream public per se. With four out of every five of their predictions appearing in trade journals, experts may not exactly be preaching to the choir, but they are still focusing on the congregation. They are not out evangelizing like the thought leaders.

This is a problem for at least a couple of reasons. First, public opinion data show that the public is losing trust in higher education (Fischer, 2022). Yet the sector's interlocutors with the public are seldom experts. Second, our data suggest that experts—especially when co-authoring—may be wrong less often than thought leaders. That means the public is at greater risk of getting bad information—and using that information to inform how they vote, and, in turn, what policies will shape the sector in the years ahead. We argue that the academy needs to re-prioritize communication with the public. Tenure committees should count it as service and doctoral programs should teach future faculty how to do it well.

Further, the academy would do well to incentivize participation in the ideas industry by all its members. Our study finds that senior academic men over-participate in this activity. An important corollary is the apparent under-representation of women. Why are there so few of them in our data set? An initial approach to answering that question must start by observing that the supply of potential women authors is lower than men. According to IPEDS, in Fall 2020, 48 percent of all faculty in U.S. postsecondary institutions were women. But among tenured faculty, this figure drops to 41 percent. And among those who hold the title of full professor, only 35 percent are women. None of the women authors in our data set have held faculty positions, let alone tenure-track or tenured positions. Whereas nearly half of the men in our data set have been full professors.

The disparity compounds when you consider that women write op-eds at much lower rates than men. In 2008, the OpEd project began raising awareness about this issue when it found that 80-90 percent of newspaper op-eds were penned by men. Its 2012 Byline Survey found that two in three op-eds about education had male authors. Since then, figures have improved, but women still lag men. A 2016 study found that men authored 81 percent of op-eds on foreign policy in the The New York Times, The Washington Post, The Wall Street Journal, and Los Angeles Times (Bayrasli & Radin, 2018). In 2019, The New York Times started the Women's Project to achieve greater gender parity in its letters page. After a year, it had increased the percentage of published letters from women writers, but the percentage of overall submissions remained static. Only 25 to 30 percent of all potential letters were written by women (Feyer, 2020). In February 2020, the Times implored more women to write. Then the pandemic arrived.

During the height of the pandemic, women bore the brunt of household work, especially managing children's schedules and activities (Barroso, 2021; Kasymova et al., 2021). Consequently, women academics fell behind on research (Davis et al., 2022; Pebdani et al., 2022; Skinner et al., 2021). If they had less time for research, it should not be surprising that they would have less time for engaging with the public. Indeed, women academics tweeted less due to increased parenting responsibilities, which hit junior academics particularly hard (Kim & Patterson, 2021). But what is somewhat surprising is that women do not appear in our dataset even as quoted experts. This finding suggests that during a critical time when the public and policymakers were looking for insights about the future of higher education, they were not getting them from women. The paucity of their input likely impacted the content of predictions. We did not see predictions about issues in

higher education that impact women the most (STEM enrollments, research support policies like family leave, tenure clock extensions, etc.).

We similarly, and disappointingly, observe that none of the authors in our data set appear to be people of color. The pandemic has had a disproportionate impact on racial and ethnic minorities, especially Black Americans (Peek et al., 2021). Research indicates that the academic careers of minority faculty were more likely to be disrupted than those of their white colleagues (Carr et al., 2021; Krukowski et al., 2022). The absence of people of color in our data set points to the public's deprivation of access to valuable perspectives on the future of higher education, particularly during a time when the nation was also grappling with racial injustice. Academic leaders should develop support structures to ensure that their voices are heard (Njoku & Evans, 2022). Until then, public scholarship as a path toward professional legitimacy will remain a luxurious pursuit, further entrenching inequality in the professoriate.

We also want to recognize another possibility: predictions may not be a desirable intellectual product of potential suppliers beyond senior academic white men. Perhaps the prediction, like the public intellectual, is a dying breed, too. It might be that there are other ways of engaging the public better suited for our era. The next generation of academic experts might prefer to spend the time their forebears did on op-eds instead on community engaged research (London et al., 2022; Warren et al., 2018). Even so, the ideas industry will carry on—with or without academic experts. Op-eds and the predictions they contain will continue. We contend that it is in the best interest of the academy to participate. And to do so better with more voices and more accountability.

Limitations

We acknowledge several important limitations to our study. The first is that not enough time has passed for sufficient data to emerge that would help us to evaluate fully the accuracy for half of the predictions we collected. Second, the online/hybrid category concerns content that analysts could measure—and may in fact be measuring now—but standard measures have not been developed and research lags. Third, we only looked at English language sources. Predictions surely occur in non-English sources, but we did not collect or analyze them for this study. Fourth, due to Google's search algorithm, we likely missed some media outlets that included predictions. Finally, we were unable to measure the relative impact of sources and texts. We do not have data on clicks, views, or readership. Consequently, all predictions are treated as having equal impact.

Conclusion

This paper is the first exploration of academic communication about the higher education sector with the public during the pandemic. It establishes benchmarks for predictor attributes and prediction performance. It finds that predictions often appeared in op-eds in higher education trade journals. They tended to be issued by senior academic white men. Half of predictions could not be evaluated over a year after they were first issued. Although, predictions with determinable outcomes tended to bear out accurately. Predictions covered a range of topics, but enrollment patterns and online/hybrid teaching modalities were most common. The results point to a silo-ing of public discourse in which

non-academic thought leaders are the primary prognosticators of higher education futures to the general public through mainstream media. Academic experts speak to lay, but informed, audiences through higher education trade journals. Women and people of color are significantly under-represented among predictors.

If academic experts continue to participate in the ideas industry via prediction, they ought to do so in a way that allows for their claims to be evaluated. Predictions should use definite verbiage and include timelines and confidence intervals. Issuers should make a smaller number of carefully considered predictions and revisit them to reflect on their accuracy. Broader application of Tetlock's forecast-measure-revise technique would be a good starting point. Further, predictors could evaluate others' predictions when making their own to build broader public knowledge. Finally, academic leaders should foster more inclusive participation in faculty communication with the public. Doing so would have salutary consequences for both intellectual equity and the quality of public information.

Kyle Long *(PhD, Columbia University) is President of the American University in Dubai in Dubai, United Arab Emirates. His research focuses on international university campuses and the geopolitics of higher education.*

Bernhard Streitwieser *(PhD, Columbia University) is Associate Professor of International Education & International Affairs and UNESCO Co-chair in International Education for Development at the George Washington University in Washington, DC, USA. His research focuses on international student exchange and study abroad, and access and integration of refugees and at-risk migrants into higher education.*

Joy Gitter *(EdM, Harvard University) is a research consultant in the education practice of Hanover Research, a global market research firm. Her work helps K-12 leaders build educational equity, make data-informed decisions, and support school improvement through original research and policy analysis.*

References

Ahmed, S. (2022). Exploring faculty perception on the COVID-19 imposed shift in higher education of Bangladesh: A neoliberal analysis. *Policy Futures in Higher Education, 20* (4), 509-523. https://doi.org/10.1177/14782103211052151

Akin-Odanye, E., Kaninjing, E., Ndip, R., Warren, C., Asuzu, C., Lopez, I., Muiruri, C., & Vilme, H. (2021). Psychosocial impact of Covid-19 on students at institutions of higher learning. *European Journal of Education Studies, 8* (6), 112-128. https://doi.org/10.46827%2Fejes.v8i6.3770

Altbach, P. & de Wit, H. (2020a, May 2). Are we at a transformative moment for online learning? *University World News*. https://www.universityworldnews.com/post.php?story=20200427120502132

Altbach, P. G., & de Wit, H. (2020b, April 4). Post pandemic outlook for HE is bleakest for the poorest. *University World News.* https://www.universityworldnews.com/post.php?story=20200402152914362

Ammigan, R., Chan, R., & Bista, K. (Eds.). (2021). *COVID-19 and higher education in the global context: Exploring contemporary issues and challenges*. STAR Scholars.

Aquino, K. C., & Scott, S. (2022). Disability resource professionals' perceived challenges in minority-serving institutions during COVID-19: Recommendations for supporting students with disabilities. *Journal of Diversity in Higher Education*, *15*(5), 542–547. https://doi.org/10.1037/dhe0000428

Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, *12*, 8431. http://dx.doi.org/10.3390/su12208438

Aucejo, E., French, J., Ugalde Araya M., & Zafar, B. (2020). The impact of COVID-19 on student experiences and expectations: Evidence from a survey. *Journal of Public Economics*, *191*, 104271. https://doi.org/10.1016/j.jpubeco.2020.104271

Long, K., Streitwieser, B., & Fisher, A. (2021, October). *Re-imagining higher education worldwide after Covid-19*. GW University Seminar Fund. GSEHD Working Paper Series.

Baer, J. (2021). Characteristics and patterns of international students at community colleges. In G. Malveaux & K. Bishna (Eds.), *International students at US community colleges: Opportunities, challenges, and successes*. Routledge. https://doi.org/10.4324/9781003121978

Barroso, A. (2021, January 25). For American couples, gender gaps in sharing household responsibilities persist amid pandemic. *Pew Research*. https://www.pewresearch.org/fact-tank/2021/01/25/for-american-couples-gender-gaps-in-sharing-household-responsibilities-persist-amid-pandemic/

Bayrasli, E. & Radin, E. (2018, August 2). Women's voices are still lacking in foreign policy op- eds. *Columbia Journalism Review*. https://www.cjr.org/opinion/women-foreign-policy-op-ed.php

Belluigi, D., Czerniewicz, L., Gachago, D., Camps, C., Aghardien, N., & Marx, R. (2022). 'Deeply and deliciously unsettled'? Mis-reading discourses of equity in the early stages of Covid19. *Higher Education*, https://doi.org/10.1007/s10734-022-00847-3

Bergerson, A. & Coon, S. (Eds.). (2022). *Understanding individual experiences of COVID-19 to inform policy and practice in higher education: Helping students, staff, and faculty to thrive in times of crisis.* Routledge.

Bothwell, E. (2020, March 26). Coronavirus: global student flows to suffer 'massive hit' for years. *Times Higher Education*. https://www.timeshighereducation.com/news/coronavirus-global-student-flows-suffer-massive-hit-years.

Bozkurt, A. (2022). Resilience, adaptability, and sustainability of higher education: A systematic mapping study on the impact of the coronavirus (covid-19) pandemic and the transition to the new normal. *Journal of Learning for Development, 9* (1), 1-16. https://doi.org/10.56059/jl4d.v9i1.590

Burkholder, G. & Krauskopf, E. (2021). Implications of COVID-19 on higher education (special issue). *Higher Learning Research Communications, 11*. https://doi.org/10.18870/hlrc.v11i0.1246

Carnevale, A. P. (2021, August 4). The Future of American Higher Education. *Georgetown CEW*. https://medium.com/georgetown-cew/the-future-of-american-higher-education-e6eb2e522dae

Carr, R., Lane-Fall, M., South, E., Brady, D., Momplaisir, F., Guerra, C., Montoya-Williams, D., Dalembert, G., Lavizzo-Mourey, R., & Hamilton, R. (2021). Academic careers and the Covid-19 pandemic: Reversing the tide. *Science Translational Medicine, 13* (584). https://doi.org/10.1126/scitranslmed.abe7189

Chan, R., Bista, K., & Allen, R. (Eds.). (2021). *Online teaching and learning in higher education during Covid- 19: International perspectives and experiences*. Routledge.

Choi Fung Tam, A. (2022). Students' perceptions of and learning practices in online timed take- home examinations during Covid-19. *Assessment & Evaluation in Higher Education, 47* (3), 477-492. https://doi.org/10.1080/02602938.2021.1928599

Coe, K. & Kuttner, P. (2018). Education coverage in television news: A typology and analysis of 35 years of topics. *AERA Open, 4* (1), 1-13. https://doi.org/10.1177/2332858417751694

Coe, K., Kuttner, P., Park-Ozee, D., & McKasy, M. (2020). The "discourse of derision" in news coverage of education: A mixed methods analysis of an emerging frame. *American Journal of Education, 126* (3), 423-445. https://doi.org/10.1086/708251

Coppock, A., Ekins, E., and Kirby, D. (2018). The long-lasting effects of newspaper op-eds on public opinion. *Quarterly Journal of Political Science, 13* (1), 59-87. https://isps.yale.edu/sites/default/files/publication/2018/04/qjps_2018_coppock_op-eds_100.00016112.pdf

Davenport, B. & Holland, B. (2021). Note from the guest editors. *Journal of Higher Education Outreach & Engagement, 25* (3), 1-4. https://ojs01.galib.uga.edu/jheoe/article/view/2763/2680

Davis, D. & Maldonado, C. (2015). Shattering the glass ceiling: The leadership development of African American women in higher education. *Advancing Women in Leadership, 35*, 48-64. https://doi.org/10.21423/awlj-v35.a125

Davis, P., Meagher, E., Pomeroy, C., Lowe, W., Rubenstein, H., Wu, J., Curtis, A., & Jackson, R. (2022). Pandemic-related barriers to the success of women in research: A framework for action. *Nature Medicine, 28*, 436-438. https://www.nature.com/articles/s41591-022-01692-8

De Welde, K. & Stepnick, A. (Eds.). (2015). *Disrupting the culture of silence: Confronting gender inequality and making change in higher education*. Routledge. https://doi.org/10.4324/9781003444299

De Wit, H., & Altbach, P. G. (2021). Fighting for funding and against inequality post-COVID-19. *International Higher Education*, 105, 3–4. https://ejournals.bc.edu/index.php/ihe/article/view/14365

Demsas, J. (2022, April 7). Why so many COVID predictions were wrong. *The Atlantic*. https://www.theatlantic.com/ideas/archive/2022/04/pandemic-failed-economic-forecasting/629498/

Dennis, M. J. (2021, January 9). Predictions for higher education worldwide for 2021. *University World News*. https://www.universityworldnews.com/post.php?story=20210107134029744

Drezner, D. (2017). *The ideas industry: How pessimists, partisans, and plutocrats are transforming the marketplace of ideas*. Oxford University Press.

Feyer, T. (2020, February 14). Women, please speak out. *The New York Times*. https://www.nytimes.com/2020/02/14/opinion/letters/letters-editor-nytimes-gender.html

Fischer, K. (2022, July 26). Americans' confidence in higher ed drops sharply. *The Chronicle of Higher Education*. https://www.chronicle.com/article/americans-confidence-in-higher-ed-drops-sharply

Floyd, D., Mullin, C., & Ramdin, G. (2022). Community colleges evolve during the COVID-19 pandemic: What worked, what did not work, and lessons learned. *Community College Journal of Research and Practice, 46* (1-2), 8-11. https://doi.org/10.1080/10668926.2021.1989344

Forster, M. (2008). Prediction. In M. Curd & S. Psillos (Eds.), *The Routledge Companion to Philosophy of Science*, 2nd ed. Routledge. https://doi.org/10.4324/9780203744857

Garrett, R. (2021, January 12). Higher education predictions for 2021, part 2. *Encoura*. https://encoura.org/higher-education-predictions-for-2021-part-2/

Ghosh, S. & DeMartino, L. (2022a). Global universities' COVID-19 scientific knowledge production: Collaborative sense-making during a crisis. *Journal of Comparative & International Higher Education, 14* (3) (Part 1). https://doi.org/10.32674/jcihe.v14i3%20(Part%201).3634

Ghosh, S. & DeMartino, L. (2022b). Special issue on the international and comparative impact of COVID-19 on institutions of education. *Journal of Comparative & International Higher Education, 14* (3A), 7-9. https://doi.org/10.32674/jcihe.v14i3%20(Part%201).4974

Gonzales, L. & Terosky, A. (2016). From the faculty perspective: Defining, earning, and maintaining legitimacy across academia. *Teachers College Record, 118* (7), 1-44. https://doi.org/10.1177/016146811611800704

Green, W., Anderson, V., Tait, K., & Tran, L. (2020). Precarity, fear and hope: Reflecting and imagining in higher education during a global pandemic. *Higher Education Research & Development, 39* (7), 1309- 1312. https://doi.org/10.1080/07294360.2020.1826029

Gurantz, O. & Wielga, C. (2021). How have FAFSA submissions differed during Covid-19? *Educational Researcher, 50* (4), 256-260. https://doi.org/10.3102%2F0013189X21992059

Harper, S. (2020). COVID-19 and the racial equity implications of reopening college and university campuses. *American Journal of Education, 127* (1), 153-162. https://doi.org/10.1086/711095

Ho-Mak, K. & Montgomery, C. (2021). Remaking higher education for the post-COVID-19 era: Critical reflections on marketization, internationalization and graduate employment. *Higher Education Quarterly, 0* (0), 1-8. https://doi.org/10.1111/hequ.12330

Hosni, H. & Vulpiani, A. (2017). Forecasting in light of big data. *Philosophy & Technology, 31*, 557-569. https://doi.org/10.48550/arXiv.1705.11186

Huang, F., Crăciun, D., & de Wit, H. (2022). Internationalization of higher education in a post-pandemic world: Challenges and responses. *Higher Education Quarterly, 76*, 203-212. https://doi.org/10.1111/hequ.12392

Husain, M. (2021). COVID-19 and crises of higher education: Responses and intensifying inequalities in the Global South. *Policy Futures in Education, 20* (4), 377-381. https://doi.org/10.1177/14782103211055347

Jayasuriya, K. (2021). COVID-19, markets and the crisis of the higher education regulatory state: The case of Australia. *Globalizations, 18* (4), 584-599. https://doi.org/10.1080/14747731.2020.1815461

Johnson, N., Veletsianos, G., & Seaman, J. (2020). U.S. faculty and administrators' experiences and approaches in the early weeks of the COVID-19 pandemic. *Online Learning*, *24* (2), 6-21. https://doi.org/10.24059/olj.v24i2.2285

June, A. & O'Leary, B. (2021, October 12). How did these pandemic predictions turn out? *The Chronicle of Higher Education*. https://www.chronicle.com/article/how-did-these-pandemic-predictions-turn-out?

Kasymova, S., Place, J., Billings, D., & Aldape, J. (2021). Impacts of the COVID-19 pandemic on the productivity of academics who mother. *Gender, Work & Organization, 28* (Suppl 2), 419-433. https://doi.org/10.1111%2Fgwao.12699

Kee, C. (2021). The impact of COVID-19: Graduate students' emotional and psychological experiences. *Journal of Human Behavior in the Social Environment*, *31* (1-4), 476-488. https://doi.org/10.1080/10911359.2020.1855285

Kee-Ming Sia, J. & Abbas Adamu, A. (2021). Facing the unknown: Pandemic and higher education in Malaysia. *Asian Education and Development Studies*, *10* (2), 263-275. https://doi.org/10.1108/AEDS-05-2020-0114

Kele, K. & Mzileni, P. (2021). Higher education leadership responses applied in two South African comprehensive universities during the COVID-19 pandemic: A critical discourse analysis. *Transformation in Higher Education, 6* (0), a114. https://doi.org/10.4102/the.v6i0.114

Kim, E. & Patterson, S. (2021). The pandemic and gender inequality in academia. *S: Political Science & Politics, 55* (1), 109-116. https://doi.org/10.1017/S1049096521001049

Knight, H., Carlisle, S., O'Connor, M., Briggs, L., Fothergill, L., Al-Oraibi, A., Yildirim, M., Morling, J., Corner, J., Ball, J., Denning, C., Vedhara, K., & Blake, H. (2021). Impacts of the COVID-19 pandemic and self-isolation on students and staff in higher education: A qualitative study. *International Journal of Environmental Research and Public Health*, *18*, 10675. https://doi.org/10.3390/ijerph182010675

Koo, K., Yao, C., & Gong, H. (2023). "It is not my fault": Exploring experiences and perceptions of racism among international students of color during COVID-19.

Journal of Diversity in Higher Education, *16*(3), 284–296. https://doi.org/10.1037/dhe0000343

Krukowski, R., Blackman Carr, L., & Arigo, D. (2022). Pandemic-related tenure timeline extensions in higher education in the United States: Prevalence and associated characteristics. *Challenges, 13*, 34. https://doi.org/10.3390/challe13020034

Le Grange, L. (2020). Could the Covid-19 pandemic accelerate the uberfication of the university? *South African Journal of Higher Education, 34* (4), 1-10. https://dx.doi.org/10.20853/34-4-4071

Lester, J. (2011). Regulating gender performances: Power and gender norms in faculty work. *NASPA Journal About Women in Higher Education, 4* (2), 142-169. https://doi.org/10.2202/1940-7890.1082

London, R., Glass, R., Chang, E., Sabati, S., & Nojan, S. (2022). "We are about life-changing research": Community partner perspectives on community-engaged research collaborations. *Journal of Higher Education Outreach and Engagement, 26* (1), 19-36. https://openjournals.libs.uga.edu/jheoe/article/view/2512/2722

Long, K. & O'Connell, C. (2022). Public discourse and public policy on foreign interference in higher education**.** *Journal of Comparative and International Higher Education*, *14* (5), 15-42**.** https://doi.org/10.32674/jcihe.v14i5.4650

Lucas, H. & Felton, H. (2022). *Modern heroics: How HBCUs navigated the COVID-19 pandemic*. Information Age Publishing.

Makridakis, S., Hyndman, R., & Petropoulos, F. (2020). Forecasting in social settings: The state of the art. *International Journal of Forecasting, 36,* 15-28. https://doi.org/10.1016/j.ijforecast.2019.05.011

Mangrum, D. & Niekamp, P. (2022). College student travel contributed to local Covid-19 spread. *Journal of Urban Economics, 127,* 103311. https://doi.org/10.1016/j.jue.2020.103311

Marginson, S. (2021, June 3). University challenged – the pandemic, fees and students. *Expressions by Montaigne*. https://www.institutmontaigne.org/en/expressions/university-challenged-pandemic-fees-and-students

Marsicano, C., Felten, K., Toledo, L., & Buitendorp, M. (2020, April). *Tracking campus responses to the COVID-19 pandemic* [working paper]. Davidson College Educational Studies Working Paper Series No. 1. https://doi.org/10.33774/apsa-2020-3wvrl

Martin, C., Acal, C., El Homrani, M., & Estrada, A. (2021). Impact on the virtual learning environment due to COVID-19. *Sustainability, 13* (2), 582. https://doi.org/10.3390/su13020582

McKeown, J., Bista, K., & Chan, R. (Eds.). (2021). *Global higher education during Covid-19: Policy, society, and technology*. STAR Scholars.

Murphy, M. & Costa, C. (2019). Digital scholarship, higher education and the future of the public intellectual. *Futures, 11*, 205-12. https://doi.org/10.1016/j.futures.2018.04.011

Nakra, P. (2021). Covid-19 disrupts U.S. higher education industry: Reimagining the future. *Journal of Higher Education Theory and Practice, 21* (6). https://doi.org/10.33423/jhetp.v21i6.4382

National Student Clearinghouse. (2021). Term enrollment estimates Fall 2021. https://nscresearchcenter.org/wp-content/uploads/CTEE_Report_Fall_2021.pdf

Neuwirth, L., Jović, S., Runi Mukherji, B. (2021). Reimagining higher education during and post-COVID-19: Challenges and opportunities. *Journal of Adult and Continuing Education, 27* (2), 141-156. https://doi.org/10.1177/1477971420947738

Nichols, T. (2017). *The death of expertise: The campaign against established knowledge and why it matters.* Oxford University Press.

Njoku, A. & Evans, M. (2022). Black women faculty and administrators navigating Covid-19, social unrest, and academia: Challenges and strategies. *International Journal of Environmental Research and Public Health, 19* (4), 2220. https://doi.org/10.3390%2Fijerph19042220

Oliveira, G., Grenha Teixeira, J., Torres, A., & Morais, C. (2021). An exploratory study on the emergency remote education experience of higher education students and teachers during the COVID-19 pandemic. *British Journal of Educational Technology*, *52*, 1357-1376. https://doi.org/10.1111/BJET.13112

O'Meara, K., Templeton, L., & Nyunt, G. (2018). Earning professional legitimacy: Challenges faced by women, underrepresented minority, and non-tenure-track faculty. *Teachers College Record, 120* (12), 1-38. https://doi.org/10.1177/016146811812001203

Omodan, B. (2020). Managing the psycho-social vacuum of Covid-19 among rural learners through Ubuntu. *Journal of Educational and Social Research, 10* (6), 266-278. https://doi.org/10.36941/jesr-2020-0125

Pan, S. (2021). COVID-19 and the neo-liberal paradigm in higher education: Changing landscape. *Asian Education and Development Studies, 10* (2), 322-335. https://doi.org/10.1108/AEDS-06-2020-0129

Parks, P. & Takahashi, B. (2016). From apes to whistleblowers: How scientists inform, defend, and excite in newspaper op-eds. *Science Communication, 38* (3), 275-302. https://doi.org/10.1177%2F1075547016642240

Pebdani, R., Zeidan, A., Low, L. (2022). Pandemic productivity in academia: Using ecological momentary assessment to explore the impact of COVID-19 on research productivity. *Higher Education Research & Development.* https://doi.org/10.1080/07294360.2022.2128075

Peek, M., Simons, R., Parker, W., Ansell, D., Rogers, S., & Edmonds, B. (2021). Covid-19 among African Americans: An action plan for mitigating disparities. *American Journal of Public Health, 111* (2), 286-292. https://doi.org/10.2105%2FAJPH.2020.305990

Pokhrel, S. & Chhetri, R. (2021). A literature review on impact of Covid-19 pandemic on teaching and learning. *Higher Education for the Future, 8* (1), 133-141. https://doi.org/10.1177/2347631120983481

Posner, R. (2001). *Public intellectuals: A study of decline*. Harvard University Press.

Prescott, B. (2021). Post-COVID enrollment and postsecondary planning. *Change: The Magazine of Higher Learning, 53* (3), 6-13. https://doi.org/10.1080/00091383.2021.1906132

Sharaievska, I., McAnirlin, O., Browning, M., Larson, L., Mullenbach, L., Rigolon, A., D'Antonio, A., Cloutier, S., Thomsen, J., Covelli Metcalf, E., & Reigner, N. (2022). "Messy transitions": Students' perspectives on the impacts of the COVID-19 pandemic on higher education. *Higher Education.* https://doi.org/10.1007/s10734-022-00843-7

Skinner, M., Betancourt, N., & Wolff-Eisenberg, C. (2021). The disproportionate impact of the pandemic on women and caregivers in academia. *Ithaka S+R.* https://doi.org/10.18665/sr.315147

Slack, H. & Priestley, M. (2022). Online learning and assessment during the Covid-19 pandemic: Exploring the impact on undergraduate student well-being. *Assessment & Evaluation in Higher Education.* https://doi.org/10.1080/02602938.2022.2076804

Sommer, B. & Maycroft, J. (2008). Influencing public policy: An analysis of published op-eds by academics. *Politics & Policy, 36* (4), 586-613. https://doi.org/10.1111/j.1747-1346.2008.00122.x

Tetlock, P. (2005). *Expert political judgment. How good is it? How can we know?* Princeton University Press.

Tetlock, P. & Gardner, D. (2015). *Superforecasting: The art and science of prediction*. Crown Publishers.

Tsang, J., So, M., Chong, A., Lam, B., & Chu, A. (2021). Higher education during the pandemic: The predictive factors of learning effectiveness in Covid-19 online learning. *Education Sciences*, *11*, 446. https://doi.org/10.3390/educsci11080446

Vujnovic, M. & Foster, J. (2022). *Higher education and disaster capitalism in the age of Covid-19*. Palgrave Macmillan.

Warren, M., Calderon, J., Kupscznk, L., Squires, G., & Su, C. (2018). Is collaborative, community-engaged scholarship more rigorous than traditional scholarship? On advocacy, bias, and social science research. *Urban Education, 53* (4), 445-472. https://doi.org/10.1177/0042085918763511

Whatley, M. & Castiello-Gutierrez, S. (2022). Balancing finances, politics, and public health: international student enrollment and reopening plans at US higher education institutions amid the COVID-19 pandemic. *Higher Education, 84*, 299-320. https://doi.org/10.1007/s10734-021-00768-7

Wilczewski, M., Gorbaniuk, O., & Giuri, P. (2021). The psychosocial and academic effects of studying from the home and host country during the Covid-19 pandemic. *Frontiers in Psychology, 12*, 644096. https://doi.org/10.3389/fpsyg.2021.644096

Yu, J. (2021). Lost in lockdown: The impact of Covid-19 on Chinese international student mobility in the US. *Journal of International Students, 11* (S2), 1-18. https://doi.org/10.32674/jis.v11iS2.3575

Appendix-I

Table 4

Definitions of Key Terms

Term	Definition
Prediction	A statement expressing that an occurrence, phenomenon, or change would or would not happen in the future.
Nonspecialist	Member of the-public who engages higher education content.
Specialist	Individual with extensive knowledge, expertise, and experience in the higher education industry.
Thought Leader	Individual employed in the private sector or who regularly advocates some aspect of "disruptive innovation" in higher education
Public Intellectual	Individual who addresses nonspecialist audiences on matters of broad public concern, identifying and synthesizing trends.
Expert	Category of predictor referring to tenured research faculty or senior leader of higher education organization.
Aspirant	Category of predictor referring to non-tenured or practice-oriented faculty as well as mid-level researchers at education-oriented think tanks or international organizations
Expert+	Category of predictor referring to a group with at least one expert and one or more experts, aspirants, and/or journalists
Journalist	Category of predictor referring to an individual employed by a media organization