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Family-Owned Universities: Fit for the Twenty-First Century?

Edward Choi, Philip G. Altbach, Hans de Wit, and Matt R. Allen

Abstract
Family-Owned or -Managed Higher Education Institutions (FOMHEIs) are a remarkable phenomenon—which, despite having a global presence, is almost entirely ignored. FOMHEIs exist on every continent and number in the thousands. Many are established with a social mission and are nonprofit, while others are for-profit and linked to family businesses. Despite their unequivocal "familiness" dimension, FOMHEIs retain the character of academic enterprises, while departing from their nonfamily-based counterparts in several major ways.

Family-Owned or -Managed Higher Education Institutions (FOMHEIs) are remarkable and almost entirely ignored, despite having a global presence. They exist on every continent and probably number in the thousands. These institutions are established by families, typically by a charismatic family member, and remain under family control across generations. Although there are no statistics concerning the extent of their operations, it is estimated that FOMHEIs have a significant presence in a number of countries with large private sectors. The observations in this article stem from The Global Phenomenon of Family-Owned or -Managed Universities (2020), edited by Philip G. Altbach, Edward Choi, Matt R. Allen, and Hans de Wit (Brill Sense).

FOMHEIs may be distinguished from the general landscape of higher education by several characteristics, primarily relating to the means by which family-based leadership makes organizational decisions and the unique opportunities and challenges created by the managerial involvement of family members. In most countries, family coalitions are understood to *own* the universities that they establish. In many cases, they own education groups that also include other institutional types, such as schools.

Institutional Characteristics

FOMHEIs typify many of the characteristics defining their nonfamily counterparts within the private education sector. For example, they operate with both for-profit and nonprofit motives. Nonprofit FOMHEIs may be found in such countries as Bangladesh, Colombia, India, Japan, and South Korea, and where national policy proscribes commercial activity in higher education. This is in contrast to such countries as Armenia, Brazil, China, Ethiopia, and the Philippines, where FOMHEIs blend commercial interests with a social mission.

FOMHEIs also resemble private nonfamily-based types on institutional autonomy, which varies in degree depending on national context. They have less autonomy in countries with no substantial differences between public and private sectors with respect to government oversight. These include Armenia, China, Japan, the Philippines, and South Korea. In these countries, FOMHEIs may be understood as quasi-public entities and are subject to stringent government controls reaching deep into university affairs. However, this is not the case in other parts of the world. The governments of such countries as Brazil, Ethiopia, India, and Mexico enforce comparatively looser regulations.

Other dimensions on which FOMHEIs resemble (private) nonfamily-based institutions include institutional priorities and societal role; enrollment capacity; academic offerings, focus, and research; educational quality; and funding patterns.

The "Familiness" Dimension

All FOMHEIs retain the character of an academic enterprise, some more than others. However, they depart from their nonfamily counterparts in terms of their resemblance to family-owned businesses. Like family firms, FOMHEIs possess socioemotional wealth, understood as an organization's stock of nonfinancial endowments. These include, for example, a shared identity between families and their universities, binding social ties or relational capital, and emotional attachments among family members. Strong social bonds, rooted in loyalty, reciprocation, and trust, shape a participatory, family-like culture in which both family and nonfamily personnel have membership. Emotional attachments among family members may also be found, as positive projections like pride and love, and in negative forms such as disappointment, frustration, or anger.

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Socioemotional wealth also includes family influence and renewal, or family-based succession.

Socioemotional wealth also includes family influence and renewal, or family-based succession. These forms of capital are often protected and pursued in organizational decision-making. Decisions around the appointment and promotion of new employees and staff is one such example. It is often the case that families favor kin over more qualified nonfamily personnel. At some FOMHEIs where such decision-making is pronounced, the family maintains a majority presence on the board and perpetuates family-based control by choosing board successors from within kinship groups, typically their sons or daughters. There are also cases in which single family members occupy multiple positions of leadership within the same university (e.g., board member and president) and/or across different institution types controlled by the same family group.

Challenges and Weaknesses

There are myriad challenges and weaknesses connected to the protection and enhancement of socioemotional wealth and familial power. For example, the family's desire to protect family influence and dominate managerial decision-making is often detrimental to shared governance practices.

Another challenge may relate to enhancing family influence at the cost of securing opportunities for economic gain. Families owning firms often forgo investments in diversification strategies that grow the business. Firm diversification, which may require sharing decision-making power with nonfamily actors, is perceived as threatening to the family's dominant managerial position.

The family's need to keep the university within the family is another example in which family priorities may clash with organizational needs. Family-centric hiring and promotion practices, discussed above, can lead to agency conflict, and in some cases explosive infighting among family and nonfamily personnel. Nonfamily members, in particular those in the faculty body, may resist the traditions and norms of family-based succession especially where it concerns the recruitment and promotion of perceivably unqualified individuals.

Opportunities and Strengths

Unique opportunities and strengths abound at FOMHEIs. Family-based leadership may possess a competitive advantage over their nonfamily counterparts in the related areas of decision-making and introducing organizational change. It is often the case that decision-making at FOMHEIs is an efficient, unified process in which family members converge on a single vision. This may indeed be advantageous in a landscape where most other higher education institutions have slow reaction times to rapidly evolving environmental pressures and demands.

Another strength relates to the long-term occupation of leadership positions. It is not uncommon for family members to fill positions of authority (e.g., president or board member) over a period of 20 or 30 years, sometimes longer. Continuous, uninterrupted leadership offers the major advantage of stability in terms of strategic direction.

There is also merit in the identity and reputation that families share with their universities. Many family coalitions make greater emotional and financial investments in their universities, which may lead to a boost in organizational performance and an elevated social status for the families among their communities.

Hybrid Organizations

Owing to the duality of characteristics discussed here, FOMHEIs are hybrid organizations. They are both academic enterprises and organizations retaining a "familiness" character. Familiness can have a negative influence on organizational activities and performance as well as intraorganizational relations—and there is a possibility of corruption. Appropriation of university funds for personal gain is a problem common to many FOMHEIs. These cases, however, are counterbalanced by examples where family-based socioemotional wealth, convictions, and priorities align with the needs of the

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academic community. Family coalitions with strong educational convictions and positive value systems approach management and the training of successors with great sensitivity to the needs of the academic community. Such families contribute to the excellent reputations of a number of FOMHEIs globally. Some are nationally and, in some cases, internationally ranked.

Ultimately, the reputation of FOMHEIs hinge on the values, history, convictions, and vision that family coalitions bring to management. More so than at nonfamily-based institutions, the leadership at FOMHEIs can have a greater impact on organizational culture as a result of their deep-rooted involvement. ◢

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A New Magna Charta Universitatum

Sijbolt Noorda

Abstract
Identifying, discussing, and sharing core values is important to any university. Since 1988, the Magna Charta Universitatum has served as a public statement of the fundamental principles of autonomous universities. A fresh expression of core values, principles, and responsibilities was needed in view of worldwide successes as well as challenges: This is the underlying idea of the new statement launched in June 2021.

Since 1988, almost 1,000 universities have signed the Magna Charta Universitatum. With this statement of fundamental principles, they have expressed the crucial value of academic independence and freedom. Initiated by the council of European rectors as a foundation for international collaboration and collegial support, the statement has gained worldwide prominence.

The world has since become interconnected in ways unimaginable at the time of the original declaration. Universities have proliferated around the globe, dramatically increasing in variety as well as in scope and mission. The potential of higher education and research to be a positive agent of change and social transformation endures. The principles laid out in the 1988 Magna Charta are as valid today as they were back then. They remain the necessary precondition for human advancement through enquiry, analysis, and sound action.

At the same time, the great successes of universities have attracted interventions of all sorts. In many places, political as well as economic powers wish to make sure that their interests are being served in ways not always respecting university autonomy or academic freedom of individual scholars and students. These challenges require the global academy to stand up for its essential values as well as clearly identify the responsibilities and commitments that are vital to universities around the world in the twenty-first century.

Against the backdrop of these challenges, we felt that we needed a fresh expression of core values and principles, as well as responsibilities. This is what the new Magna Charta Universitatum (drafted in 2019, defined in 2020, and formally launched in June 2021) aims to be.

The Value of Values

Values are important beliefs or ideals shared by members of a community about what is good or bad, desirable or not. They serve as broad guidelines for a person's or a community's behavior and attitude. Why do they matter for universities? Values steer institutional profile-setting and help define what kind of institution we want to be. They demonstrate which interests we want to serve and why we do so. At the same time, values are quality markers, like integrity in research operations and fairness in the educational process. In addition, values matter because they are foundational principles of institutional self-understanding and positioning in society, like autonomy and academic freedom, social responsibility, and equity. Another significant use of values is that they guide

Identifying, discussing, and sharing core values is important to any university, particularly in view of political turbulence, competing claims, and internal differences of convictions and opinions.

academic communities in (inter)national relations, regarding with whom to collaborate, in which ways, and for what purpose, and how to cope with cultural diversity, including different value priorities.

So, identifying, discussing, and sharing core values is important to any university, particularly in view of political turbulence, competing claims, and internal differences of convictions and opinions. Ideally, values enable a university to enhance its performance in teaching, learning, and research. If such values are identified and expressed as truly shared values, they strengthen a university's sense of community. In addition, the expression of lived values helps to demonstrate to the outside world why a university makes certain decisions and which values it hopes to instill in its graduates.

The New Magna Charta

Since the first Magna Charta, a crucial aspect has been that key values like independence and academic freedom were meant not to serve as selfish privileges, but rather as foundations for responsible universities that wish to serve their communities by contributing to the well-being and development of our societies. This is why the new statement begins by declaring that "universities acknowledge that they have a responsibility to engage with and respond to the aspirations and challenges of the world and to the communities they serve, to benefit humanity and contribute to sustainability." And further, that "intellectual and moral autonomy is the hallmark of any university and a precondition for the fulfillment of its responsibilities to society. That independence needs to be recognized and protected by governments and society at large, and defended vigorously by institutions themselves."

This affirmation implies that a reliable social contract with civil society, which fully respects institutional autonomy, is a crucial precondition for high quality academic work as well as valuable service to present and future societies. In addition to this reliable foundational relationship with government and society, the new statement asserts that universities are part of a global collegial network of scholarship and are committed to addressing global challenges, while at the same time deeply engaging with their local communities and ecosystems.

On these issues, the new statement is both more explicit and more comprehensive. Similarly, relative to the 1988 commitment to university life as a meeting ground for teachers and students to be governed by freedom, openness to dialogue, and rejection of intolerance, the new declaration is more inclusive. "Universities are non-discriminatory spaces of tolerance and respect where diversity of perspectives flourishes and where inclusivity, anchored in principles of equity and fairness, prevails. They therefore commit themselves to advance equity and fairness in all aspects of academic life including admissions, hiring and promotion practices."

In the present setting, it is not possible to present or discuss all elements of the new statement. (For easy reference, it is available at the magna-charta.org website.) Neither does the new statement contain a complete set of all relevant issues. Like the 1988 declaration, it highlights what the drafters found crucial. Yet, in this case, the drafting was done by a diverse, global team, and the round of consultations that followed was also a worldwide process. As a result, the statement reflects a series of key challenges and priorities that span the globe.

Strengthening the Role of Universities

The underlying idea of the new statement is to make the voice of universities heard loud and clear, as a strong collegial and supportive signal to our sister institutions around the globe. Ultimately, by signing the Magna Charta 2020, universities declare their commitment to strengthening their role in the preservation of the planet and in promoting health, prosperity, and enlightenment around the world. No university can achieve that much all by itself. Only through collaboration based on shared engagement do these ultimate goals come within reach. That is exactly why launching the new statement is an invitation to colleagues to review the extent to which they live in accordance with the principles and values, and fulfil the responsibilities set out in it. By joining the community of signatories, colleagues will help both themselves and other institutions to strengthen their position and influence in society for the good of all. ◢

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Free Higher Education: On and Off the Agenda with the Political Tide

Ariane de Gayardon

With all that happened in 2020, it is not surprising that debates on the cost of higher education have been subdued. The free tuition movement that developed between 2016 and 2019 has stalled, a logical outcome of a year of health and economic hardship. And 2020 will certainly have economic repercussions on higher education for many years to come. Yet, in some countries, 2020 was also an election year, bringing with it promises and disappointment on the matter of free tuition higher education.

The United States

In the United States, free tuition was an important topic during the Democratic primary. Two frontrunners, Bernie Sanders and Elizabeth Warren, strongly supported free tuition for all. In 2020, Joe Biden was chosen as the Democratic candidate—a candidate whose position on tuition fees was less vocal. His platform, however, included making community colleges free for all, as well as support for free four-year college education for low-income students. Biden's vice-president running mate, Kamala Harris, was not a supporter of free tuition. Yet her campaign platform included a plan to make education at four-year institutions debt free, and as a senator, she cosponsored the Debt-Free College Act.

The issue of tuition fees came to the foreground as the COVID-19 pandemic put an end to on-campus instruction in the Spring semester 2020. Students rebelled against the idea of paying full tuition fees for online courses, which they deemed of lower quality—to little effect. Even with instruction resuming on campus, the long-term economic crisis that might result from the pandemic will keep the issue of tuition fees on the political agenda. Affordability of four-year institutions will be questioned again, as families affected by the crisis have fewer financial resources, changing enrollment patterns and student college choices.

In this particular context, the support of President Joe Biden for free community college and free four-year-institution education for students from families earning less than USD 125,000 will be a welcome improvement to the current system, ensuring that low-income students, including those whose families were negatively impacted by the pandemic, have access to higher education. Pending a few improvements, such as swapping the strict parental income cut off for a fade-out rule, Biden could secure an important political win for Democrats.

New Zealand

By contrast, New Zealand's new free-tuition scheme took a hit in 2020, despite it being an election year, and despite the government's exemplary management of the pandemic. In 2017, New Zealand's Labour government introduced a "fees-free" program eliminating tuition fees for first-year students, with the intention of expanding this measure to the second year in 2020 and to the third year in 2024. However, expansion to the second year was absent from the 2020 Labour political platform.

Several reasons can explain this change of position. First, owing to its successful control of the pandemic, the Labour Party was assured victory and probably did not need publicity gains from free tuition promises. Second, the evaluation of the tuition-free first year showed disappointing results, including disproportionate benefits for rich students and a failure to boost enrollment. Third, the Labour party replaced its original

Abstract
This article provides an update on the international free tuition movement as of 2020. Through the examples of the United States and New Zealand, it shows that free tuition is a highly politicized issue used by policy makers who need to gain power. The economic crisis stemming from the COVID-19 pandemic will, however, make such an expansive policy unviable in the short-term, but might be an opportunity for income-targeted free tuition to develop.

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expansion to the second year with a "fees-free" program for apprenticeship, in effect choosing to target low-income students through postsecondary vocational training.

The Politics of Free Tuition

Highlighted in Gayardon and Bernasconi's article in *International Higher Education*, issue 100, was the fact that the free tuition movement is above all else political, with free tuition promises making their appearance on campaign platforms or before potential reelections. This is demonstrated in the two sections above: Free tuition higher education was on the agenda in the United States when elections were disputed, while it was no longer part of the Labour platform in New Zealand when victory was certain.

The case of New Zealand also shows that despite its initial appeal, free tuition often fails to fulfill its promises and is an expensive policy. This reality has been recently felt in many countries. In the face of budgetary constraints and lack of political interest, Chile is no longer expanding its free tuition policy to more students or more institutions. Similarly, Ontario terminated its free-tuition program for low-income students in an effort to cut the deficit. These examples stand to show that the cost of free higher education is hard to justify in view of its limited benefits, leading to short-lived or restricted policies. The free-tuition movement that started in 2016 in Chile and brought a number of countries onboard in the three years that followed faces an uncertain future.

The Future of Free Tuition

It is currently hard to see where the future of the free tuition movement lies. While it remains a powerful tool in the belt of would-be political leaders, the economic crisis stemming from the pandemic is likely to severely restrict higher education's budget. Higher education has never been a top priority for governments, and the years ahead will certainly place more emphasis on economic recovery and healthcare than on any other sector. Free tuition for all does not appear to be a viable policy in this context.

However, with low-income households being the most gravely hit by the pandemic economically, it might also be the right time for governments to consider *targeted* free tuition. This is what President Biden proposes through free tuition at community colleges for low-income students—following the example of Italy, New Brunswick, and Japan to name a few. Targeted free tuition would be an efficient use of the scarce resources devoted to higher education, which could prove particularly useful while recovering from the pandemic.

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Abstract

This article recognizes growing concern worldwide about the exploitation of higher education actors and institutions by foreign entities for malign purposes. It examines how higher education has become increasingly vulnerable to interference from geopolitical adversaries. The authors highlight recent allegations of espionage, propaganda, and strategic meddling in higher education in various countries before analyzing the validity and implications of these claims. They conclude by proposing solutions to counter undue foreign influence.

Rising Global Fears of Foreign Interference in Higher Education

Kyle A. Long, Chief Etheridge, Carly O'Connell, and Kat Hugins

The internationalization of higher education, long heralded for fostering friendly cross-border relations, must face a hard truth. Unfettered mobility and openness leave higher education vulnerable to exploitation by malign actors. In recent years, stories about faculty spies and student propagandists have become commonplace, contributing to rising concerns about higher education undermining national security. This worry is consistent with growing public fears regarding foreign interference in national life more broadly. The fraction of Americans who thought it very or somewhat likely

that a foreign government would attempt to influence the national election increased from two-thirds in 2018 to three-quarters in 2020.

Yet, pinpointing abusers is difficult and makes foreign interference—especially the malign variant—all the more harrowing and destructive. In the context of higher education, the phenomenon of foreign interference has heightened fears associated with ostensibly harmless international education activities. We perceive growing misgivings about government-sponsored exchanges of students and faculty, transnational research collaborations, and cross-border programming.

A Treacherous Trio

A spate of recent news stories and op-eds, government press releases, and policy documents from around the world demonstrate a level of alarm over foreign interference in higher education unseen since the height of the Cold War. When considered together, these sources point—with and without evidence—to three overarching concerns: theft of proprietary research, promotion of propaganda and disinformation on campuses, and imposition of political or cultural values through curricular and extracurricular programming.

Research Theft

In the United States, the government's "China Initiative" has accelerated federal investigations of Chinese scholars suspected of exploiting international research collaborations for criminal purposes. In September 2020, the State Department suspended the visas of more than a thousand Chinese students and professors deemed high risk due to alleged ties to the Chinese military. The Justice Department claims that another thousand visiting researchers affiliated with the Chinese military fled the country after a series of indictments earlier in the year. Since 2019, the National Institute of Health alone has investigated more than 50 institutions for a range of questionable behaviors by visiting Chinese researchers.

Australia, Japan, and the United Kingdom have also implemented stricter visa policies for Chinese researchers or established national commissions on foreign interference in universities. The European Union has adopted a policy preventing scholars from China and other countries that do not share EU values from participating in sensitive research projects. Some of the global backlash against China amounts to little more than xenophobic spectacle. But mounting evidence of criminal behavior shows that research theft is a clear and present danger.

Still, the benefits of international research collaboration ought to outweigh those concerns, especially in an era of global challenges such as the COVID-19 pandemic. Institutions must balance the need to safeguard their work with the need to maintain productive international relationships and the ethical imperative not to discriminate against researchers by nationality.

Propaganda, Censorship, and Disinformation

The global rise of disinformation has made headlines for threatening the integrity of national elections, but the probity of higher education is also at risk. Recent concerns about propaganda in American higher education revolve primarily around Confucius Institutes. In August 2020, the State Department officially designated the Confucius Institute US Center as a foreign mission of China. The classification implies that the campus cultural centers are deemed a key instrument in a global influence campaign. National political discourse and recently introduced legislation accord with this interpretation. Other countries are bringing their policies in line with the United States. In India, the ministry of education now requires universities to report their relationships with Confucius Institutes. In Australia, the government seeks to do the same, although universities have thus far resisted. While some cases of censorship, self-censorship, and visa fraud have been connected to the institutes, no evidence has been made public that clearly paints them as dangers to national security.

Confucius Institutes are not the only source of concern. The US Department of Education has started investigating institutions for failure to report foreign donations, a heretofore relatively unenforced provision of the 1965 Higher Education Act. Of particular

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concern to investigators are contributions from geopolitical adversaries such as China and Russia, but also allies like Saudi Arabia. A prominent case alleged that Texas A&M University misreported financial support from the Qatar Foundation. The underlying concern is that international funding sources may lead institutions to promote—wittingly or unwittingly—propaganda and disinformation from these countries. Another worry is that recipients would refrain from taking actions or spreading information that might anger foreign donors, thereby stifling academic speech. An examination of news stories and documents relating to these investigations do not cite evidence of *quid pro quo*. Yet, investigators' fears appear to be grounded in the logic that foreign financial contributions must yield undue influence. Continued investigations may have a chilling effect on cross-border philanthropy, cutting off valuable revenue streams for cash-strapped institutions, especially in the wake of the pandemic.

Values Imposition

While the first two categories of foreign interference have begun to pervade open societies, the third has a stronger association with closed societies. Stoking fears about foreigners is in the authoritarian playbook. Illiberal leaders routinely leverage xenophobia and outside interference to tighten their grip on power. The globalization of higher education—with people and providers crossing borders more than ever—during the past three decades has provided autocrats and their sycophants with new targets. While many antidemocratic regimes have welcomed international higher education partnerships with democratic countries and the global prestige that accompanies them, they will cut ties as soon as they are deemed a threat to sovereignty. Such was the case in 2019, when the Hungarian government revoked the license of the prodemocratic Central European University, forcing it to relocate to Austria. Officials in Budapest are still subsidizing a branch of a Chinese institution, Fudan University. Russian prosecutors investigated a university in Moscow last fall under the suspicion that pro-American influencers and international NGOs fomented student protests by spreading liberal ideas. Meanwhile, in Kyrgyzstan, a viral video circulated during the country's parliamentary election asserted that the American University of Central Asia is propagating Western values such as LGBTQ acceptance. Political rivals used accusations of promulgating these beliefs in attempts to discredit their opponents.

Collaboration and Commitment

These instances of foreign interference in higher education—or fear of it—demonstrate both how valuable higher education has become to national life and just how vulnerable higher education has become to nefarious actors. To combat further interference in open societies, current government and institutional policies related to counterintelligence, diplomacy, and law enforcement must change. Developing or leveraging policies that allow for nongovernmental oversight of investigations into alleged acts of malign foreign influence could provide a solution to avoid overly politicized reactions, while still maintaining a sufficient level of scrutiny into suspicious action. Nongovernmental and international organizations, think tanks, and membership associations can play an important role in monitoring and evaluating instances of malign foreign influence. They should provide guidance on how to properly identify perpetrators and rectify wrongs. Meanwhile, open societies must continue to advocate for, and provide resources to, faculty, students, and administrators in closed societies. ◢

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Academia's Stockholm Syndrome: The Ambivalent Status of Rankings in Higher Education (Research)

Jelena Brankovic

Over the past several decades, university rankings have become ubiquitous to the point that they have become an accepted—though not uncontested—part of the transnational academic landscape. The feeling that "rankings are here to stay" has come to resonate with many academics, administrators, and policy makers. Despite mounting evidence of their adverse effects and relentless criticism from various parties, many in higher education would argue that rankings are inevitable, or even necessary. Why is that so?

Why Do We Believe (in) Rankings?

To address this puzzle, we should observe more closely how rankings resonate with a broader cultural and institutional context. First, rankings work through public production of competition, effectively urging universities to see each other as competitors. The quasi-natural affinity between rankings and discourses on global competition is possibly one of the reasons why rankings are often seen primarily in geopolitical terms. Furthermore, rankings resonate with some of higher education's best known "rationalized myths," such as strategic management, performance indicators, accountability, transparency, internationalization, excellence, and impact. Given that rankings themselves possess an aura of rationality, they easily emerge as a "logical" instrument for fostering these myths and measuring society's progress toward them.

It is of no lesser importance that the imaginary of higher education as a hierarchy of institutions—with Harvards, Oxfords, and such at the top—predates the "hegemony" of rankings of the past several decades. When, for example, *U.S. News* and Shanghai Jiaotong University issued their first rankings, they largely confirmed what everyone already "knew" about which institutions were the "best." Had this not been the case, the subsequent reception of global rankings might have been different. For a ranking to be believed, it needs to stay in the domain of the plausible, while allowing for continuous improvement in performance. In fact, every university is *expected* always to strive to improve in rankings.

Finally, together with ratings, benchmarks, standards, and various performance-related metrics, rankings are usually seen as part of a larger repertoire of policy instruments and evaluation devices. This also facilitates their "travel" across contexts. One explanation for this is historical. Academics interested in evaluating their own work and that of their institutions had been experimenting with these instruments for decades before they were adopted by nonacademic actors in the name of broader societal purposes such as efficiency, accountability, and transparency.

Placed against this cultural and historical backdrop, the fact that rankings are taken for granted should not surprise. Because of their "naturalization" in public discourse, much of the debate on rankings is relegated to the domain of the "how." Meanwhile, the very *idea* of ranking is rarely seriously questioned, even in higher education research.

Blurred Lines: The Science of Ranking(s)

Higher education studies have always had a somewhat ambiguous relationship with rankings. Given the field's strong ties with policy and practice, much of its research is done with a clear purpose to make higher education fair, efficient, responsible, and so

Abstract
Academia has an ambivalent relationship with rankings. Academics complain constantly about them; yet, they always look for ways to "fix" them. Higher education scholars researching rankings often also exhibit a similar kind of ambivalence. The author argues that this ambivalence contributes to the further entrenchment of rankings as a practice in higher education, and calls for a heightened appreciation of reflexivity in research on this subject.

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Ranking organizations are especially keen on ensuring that their rankings look like "solid science" and are treated as such by the scientific community.

on—to make it *better*, whatever this may mean. One implication of this distinctly normative streak is that higher education scholars routinely act in the name of protecting higher education from various trends that they deem harmful. Rankings—for reasons that have been extensively documented over the past decades—are usually treated as one such trend.

As a result, much of the research on rankings is implicitly or explicitly critical. And yet, paradoxically, the criticism seems only partial: The scholarly debate on rankings tends to revolve around their methodologies and the effects thereof, frequently extending to discussions on how rankings can be improved and "better" ones developed. The research is often openly critical toward the rankers whom it believes to be primarily, if not exclusively, motivated by commercial interests. By extension, ranking organizations are thereby held to a certain standard of "appropriate" motives and behavior.

Therefore, instead of *observing* rankings as an object of study, this line of research *evaluates* them on the grounds of how "good" or how "true" they are as a policy or transparency tool. This type of reasoning implies that, if rankings were methodologically sound, measured things that mattered, were produced for noncommercial gain, and were used responsibly, things would somehow be better. However, while this may temporarily undermine a specific ranking, in the long run it is more likely to strengthen, rather than diminish, the legitimacy of rankings as a practice of evaluating universities. There are at least two reasons to expect this.

First, the arguments addressing the "how" of rankings, including how to "fix" them, essentially confirm *the idea of higher education promoted by rankings*—which goes beyond their methodologies, interests, or how they are used. In line with this, higher education is imagined as a zero-sum stratified order made up of universities continuously striving to overtake other universities, whereby *all of them* are expected to compete, *all the time*. All international rankings that wield some influence today promote this idea of higher education as a zero-sum competitive order as "natural" and even "superior" to alternative conceptions.

Second, the research evaluating rankings provides them with a much-needed scientific legitimacy. Ranking organizations are especially keen on ensuring that their rankings look like "solid science" and are treated as such by the scientific community. Academic publications that give suggestions for improvement of ranking methodologies and their effects arguably treat these organizations as partners in scholarly conversation. This carries the risk of backing various ideologies and policy agendas with scientific credibility. A similar risk exists when academics sit on rankers' boards and panels, participate in their events, or complete their surveys. Drawing on the cultural authority of science (via these conduits of academic expertise) is crucial for rankers because, like scientists, they too are in the business of making truth claims about what *is* and what *is not* in the world of higher education.

The Importance of Reflexivity

This is not to say that higher education scholarship should not be critical; quite the contrary. However, not all criticism is the same. For this and other reasons, it is fundamental to continuously examine the proverbial "big picture," together with our own role and place in it.

In practical terms, we should start thinking of rankings and rankers as, first and foremost, an object of study. Rather than treating rankings as an established higher education phenomenon, or rankers as partners in the purposes of the academic enterprise, we could simply treat them as sites of empirical investigation. Data, if you will. If we criticize our data, this could raise questions about our capacity to make sound judgements. If we have expectations about how our data should behave, or in any way try to force norms and expectations upon our data, our credibility as scholars could be brought into question. Being mindful of these risks is crucial for the validity of our observations. (That is, viewing rankings and rankers as objects of study requires that we treat them objectively and analyze the phenomena accordingly.)

Insisting that anything is "here to stay" is shortsighted. If history has anything to teach us, it is that things change. Possibly the most dangerous thing about the notorious "there is no alternative" mantra is that the more we repeat it, the closer it gets to a self-fulfilling prophecy. After all, challenging the taken-for-grantedness of socially produced "facts" and seeking to expose their ideological premises is our duty as scholars. ◣

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Engaging with China: The Higher Education Dilemma

Philip G. Altbach and Hans de Wit

Abstract
Academic relations with China have become a fraught and controversial topic globally. Of course, "it takes two to tango"—and if insurmountable challenges are set up and negative policies and practices are implemented (from either the Chinese side or the other side), then engagement becomes difficult, if not impossible. Nonetheless, engagement and collaboration is in everyone's interest, in particular, students and academics, who currently appear to be the main victims.

Academic relations with China have become a fraught and controversial topic globally. Developments in China itself, the COVID-19 crisis and the role attributed to China in it, increasingly problematic trade relations, the rise of nationalism and populism—in China and elsewhere—and other issues have all increased geopolitical tensions, and have challenged academic collaboration in research and education between China and Australia, North America, and Europe. These issues play themselves out in the media around the world with constant, and occasionally with exaggerated or even false narratives. There are real issues involved, and current and future academic relations between China and the rest of the world hang in the balance.

Several examples illustrate the tensions. Faculty and students at Cornell University in the United States are opposing a proposed joint degree program with Peking University, noting academic freedom problems in China, among other issues. The Pew Research Center argued in a underlinerecent report, "Most Americans Support Tough Stance Toward China on Human Rights, Economic Issues," that while Americans generally welcome international students, there is widespread support for limits on admissions of Chinese students, along with other negative opinions on a wide range of issues concerning China. The Academic Freedom and Internationalization Working Group, an international initiative, has proposed a underline"code of conduct" to guide academic relations with China. A solidarity statement on behalf of scholars sanctioned for their work on China is circulating and receiving large numbers of signatures among scholars around the world. Chinese government-funded Confucius Institutes have been closed in a number of Western countries, with claims of espionage, control by the Chinese government, and lack of academic freedom. Hardly a week goes by without coverage in the Western media of some negative aspect of Chinese policy or practice relating to higher education—not to mention trade or politics.

Engagement Needed
Engaging with China, perhaps especially in the current difficult period, is of great importance for global higher education. Of course, "it takes two to tango"—and if insurmountable challenges and negative policies and practices from either the Chinese side or the other side are implemented, then engagement becomes difficult, if not impossible. At the same time, Chinese scholars and students studying abroad, as well as at home, feel challenged by negative policies and practices in our part of the world. They face increasing racism, especially in the context of the COVID-19 crisis, are accused of being spies and stealing intellectual property, and are not treated on equal terms in their collaboration efforts. In particular, we have seen investigations of Chinese researchers in the United States—several of which turned out to be completely unjustified.

The basic responsibility for engagement is with academic institutions and individuals—professors, researchers, and students. Institutions and individuals all have their own "internationalization policies," and institutional and individual values, strategies, and interests all come into play. Mutual respect and understanding between academic communities is the basis for fruitful collaboration and exchange, as well as for academic freedom. Transparency on all sides is also required. But there is unfortunately evidence that policies and actions by governments prevent academic efforts from functioning independently.

Engaging with China, perhaps especially in the current difficult period, is of great importance for global higher education.

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China's Importance

China–global relations are crucial. China has emerged as a major force in academia worldwide. It has the largest academic system and is the second largest producer of published research. By investing heavily in its research universities, it has dramatically improved in the rankings. In terms of international student mobility, China is the largest sending country, with 662,000 studying abroad. China is also a major receiving country, with 500,000 overseas students, mainly from the developing world. China has also invested heavily in "educational diplomacy" through the Confucius Institute program, with more than 500 Confucius Institutes worldwide, "Belt and Road" initiatives, and other programs.

The world has become increasingly dependent on Chinese higher education. A few countries, notably Australia, depend on international students, the largest number being from China, for significant income. Some academic institutions in the United States, Canada, the United Kingdom, and elsewhere rely on Chinese student enrollments. In several countries, some graduate programs in STEM fields have become dependent on Chinese graduate students and postdocs.

Universities in Europe and North America have invested significantly in China for many reasons for close to a half-century. Branch campuses, joint degree programs, collaborative research centers of many kinds, and China studies programs are but a few examples. These initiatives have permitted Western institutions to learn about the world's number two economy and one of its great civilizations, and in many cases to earn income—the main motivating force for many programs.

In all this, the West seems to have forgotten that academic collaboration in general, and with Chinese academics and universities in particular, is essential for mutual understanding and addressing global social needs, for example as defined in the Sustainable Development Goals of the United Nations. The various conflicts concerning the origins of COVID-19 and the development of vaccines are examples of how politics and misunderstandings may have negatively impacted and delayed dealing with the crisis.

Problems

At least two key "hot button" issues at present are the repression of the Uyghurs and the impact of the security laws in Hong Kong (see for example the valuable contribution of Carsten Holz in *International Higher Education*, issue 106). Broader geopolitical tensions relating to Taiwan and East Asia in general are of concern to many—and are points of significant international tension. Of course, China is not the only country repressing human rights, but given its importance, it understandably receives more attention.

There are also a range of higher education issues that greatly worry the international community. Theft of intellectual property, of great concern to companies and governments, affects universities, as do the "narrowing" of intellectual space in China and the limits of access to information due to the "Great Firewall of China," severe limits on academic freedom, and "weaponizing" student use of social media so that professors or even students expressing "anti-regime" views are subject to harassment or worse. The list goes on. It is clear that, in general, the Chinese intellectual space has steadily been squeezed. These policies by the Chinese government negatively impact academic collaboration and need to be addressed, similar to the negative impact of other government actions such as the policies and rhetoric of the Trump Administration in the United States during 2016–2020.

What Is to Be Done?

While specific policies and practices will vary according to circumstances and local conditions and interests, the following broad guidelines seem generally appropriate globally.

▸ "Trust but Verify," as Ronald Reagan once said referring to negotiating with the Soviet Union. Engagement with Chinese counterparts should be on the basis of clearly stated goals and practices (see "Future-Proofing German-Chinese Partnerships in Higher Education" by Marijke Wahlers in *International Higher Education*, issue 105).

▸ Related is the importance of transparency—everyone and everything should be openly discussed and agreed to, so that all partners understand arrangements and goals.

- ☛ International student enrollments and exchanges of all kinds should be encouraged and facilitated. There is a continuing interest among the expanding Chinese middle class to study abroad, as there is interest in studying in China. International study is a significant advantage to all sides and should not be driven primarily by soft power or the market, but by academic and social relevance.
- ☛ Research collaboration with China, between both individual scholars and institutions, already an important driver of global science, should be encouraged, but with appropriate safeguards to prevent exploitation of people or intellectual property.
- ☛ Under these parameters, academic collaboration should be left to institutions, academics, and students and not be controlled by governments.

Conclusion

Without question, the world is at an inflection point with regard to academic relations of all kinds with China. There are, and will be, significant pressures from all sides to limit or even end aspects of engagement. Despite problems and challenges, every effort should be made to resist these pressures. One needs to remain realistic.

It will be noted that this article has not said much about academic freedom. Our view is that engagement with China should ensure that a modicum of academic freedom is guaranteed in each project or collaboration. It is unrealistic, however, to expect that Chinese higher education will be allowed to reflect established international norms of academic freedom or autonomy, as it is unrealistic to expect that anti-Asian ideology, suspicion of espionage and theft of intellectual property, and fears surrounding Confucius Institutes as an export of Chinese ideology will go away soon. (Note that similar programs sponsored by France, Germany, and the United Kingdom also disseminate culture and language for foreign policy purposes.) Indeed, trends in China and elsewhere are moving in opposite directions. Nonetheless, engagement and collaboration in the academic and scientific research spheres, to as great an extent as possible, is in everyone's interest, in particular in the interest of students and academics, who on both sides currently appear to be the main victims of these geopolitical tensions. ◢

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China's Academic Profession Hit by "Involution"

Qiang Zha

Abstract

China's robust production of research publications has not translated into innovation, and the country is riddled with key technology bottlenecks amid the US-China trade war. A situation of "involution" has been cited as a responsible factor for this paradox. When translated into the academic profession, "involution" refers to a situation whereby most university-based researchers work harder and publish more papers, while the innovative strength of Chinese higher education does not grow significantly.

This past year witnessed not only a global health crisis, but also a dramatic hit on China's academic profession. There came a U-turn with respect to academic appraisal exercises in Chinese universities. In the past decade, enormous weight was placed on publications in journals sourced by the Science Citation Index (SCI), a commercial citation index that records citations of articles published in its indexed science, medicine, and technology journals. Those journals are thus considered the leading ones, and publishing in those journals would not only lead to merit pay but also preference in appraisal exercises, leading to professional promotion and talent program opportunities, in turn bringing increased personal income and research resources. A paper published in a top SCI-indexed journal could earn a bonus of up to USD 85,000. Consequently, China's annual outputs of papers published in SCI-indexed journals soared from 120,000 in 2009 to 450,000 in 2019.

Paradoxically, China's robust production of research publications did not translate into innovation.

Paradoxically, China's robust production of research publications did not translate into innovation. This was exposed by the US–China trade war, which revealed that China has been suffering from a severe deficiency in control over key technologies and intellectual property. Top Chinese universities are now perceived as being substandard in major technology development and transfer. A leading scientist in China, Shi Yigong, revealed a stunning reason behind the scenes: Chinese universities do not produce many original or breakthrough innovations. He further warned that the current campaign for boosting publications would not necessarily lead to a boost in science and engineering (S&E). Rather, it could usher in a seeming prosperity, merely based on size and quantity of research publications. As a result, China's ministry of education and ministry of science and technology released a policy document in February 2020 that officially discourages the previously sanctioned practice of using the SCI as a main criterion for research appraisal. According to the new policy, SCI-related indicators (e.g., numbers of articles published in SCI-indexed journals, impact factors of the journals, and numbers of citations of publications) are not to be accepted as direct evidence of research merit, and the practice of paying researchers bonuses for publishing in SCI journals will be prohibited. In December 2020, the ministry of education and five other central agencies (including the Chinese Communist Party's Central Organization Department and Central Publicity Department) issued new guidelines concerning the professional advancement of higher education teaching staff, which mandates a rectification of the practices of "appraising articles by publishing journals and granting paramountcy to SCI-indexed journals."

Recently, on May 21, 2021, the Chinese Communist Party's top leadership promulgated a guideline aiming to rectify the appraisal mechanism concerning science and technology outcomes. The document points out the problems of simplifying indicators, quantifying criteria, and chasing trends blindly, and the utilitarianism in the current appraisal practices. It calls for a multivariate appraisal system with market-based assessment and mid-to-long-term evaluation as well as post-effect review. This guideline demonstrates the urgency of amending the research appraisal process in China.

"Involution" Held Responsible

A situation of "involution" has been cited as a responsible factor for this paradox. This concept has originally been used by anthropologists to describe how population growth in some agrarian societies is coupled with a decrease in per capita wealth. It is now becoming popular in China, where most people work harder yet wring little progress in terms of social mobility. When translated into the academic profession, "involution" refers to a paradoxical situation whereby most university-based researchers work harder and publish more papers, while the innovative strength of Chinese higher education does not grow significantly. This paradox is vividly demonstrated by the fact that, on the one hand, a growing number of Chinese universities now make their way into the league tables of global rankings on account of their research publications and citations; yet, on the other hand, the United States could easily take advantage of China's technology bottlenecks and hold China by the throat in the bilateral trade war. More specifically, international research publishing databases record that China has outnumbered the United States in terms of publications in such fields as material science, computer science, engineering, chemistry, mathematics, and physics. Yet, among the 35 key technology constrictions recently cited in China's *Science and Technology Daily*, most relate to those particular fields.

How does involution lead to such an effect? Scarcity of resources is believed to render a society "involuted." In the face of a scarcity of resources needed in a given society, specific types of institutions may develop in order to chase and share as far as possible those resources in short supply; the more complex the evolution of those institutions, the more involuted a society will become. In the context of Chinese higher education, the state has in the past two decades invested in a few programs of excellence with the aim of creating world-class universities (i.e., Projects 211, 985, and "Double First-Class") or rewarding high caliber talent (such as the Thousand Talents Plan and the Cheung Kong Scholar Award). These programs pull and concentrate an enormous amount of resources. Many provincial governments mimic such practices and launch excellence

programs at the local level. These programs not only concentrate resources, but also embed selection criteria (and weights) in publications in high impact journals (those indexed in the SCI, representing a tiny portion of all science & engineering journals), literally creating a situation of scarcity.

This state of scarcity driven by the regime of "SCItism" propels Chinese universities and researchers into focusing their attention and efforts on resolving the immediate scarcity, that is, on acutely seizing access to those programs of excellence. This situation often leads to magnifying productivity with quick turnaround work. Some even deploy tactical manoeuvres targeting publishing for publishing's sake in the SCI journals.

Worse still, a scarcity of resources impedes our cognitive function and performance. Scarcity is likely to push us into a situation of tunneling, which is a state of attending entirely to the resource or opportunity in short supply—often at the expense of expanding our bandwidth, which is our cognitive space to think and imagine. A lack of bandwidth inhibits fluid intelligence, which in turn obstructs the ability to envision big questions and achieve long-term goals, and results in middle-range rather than innovative work. As such, the concept of scarcity could well explain how involution occurs within China's academic profession, and more importantly, may forecast what might happen down the road.

Circumstances down the Road

The aforementioned policy measures demonstrate the effort of China's government to break the circle of involution in which the country's knowledge production appears to be trapped, and its commitment to restoring the conduct of innovative and high-impact research. Yet, outcomes might be contingent on, or constrained by, certain internal and external conditions.

Internally, China is a country characterized by massive size—and thus constant resource scarcity. For example, even within the country's top 100 universities, the income gap can be as wide as thirtyfold. The scarcity regime has been a natural policy choice and has proven to be effective in pursuing China's social and economic development goals. Arguably, scarcity does provide a focus dividend, a situation whereby one experiences an increase in productivity as a result of focusing sharply on a single pursuit. Such an effect of the focus dividend satisfies China's need to overtake others in global competitions. If an alternative regime cannot be put in place and function as efficiently, the inertia ushered in by path dependency could switch the pendulum back. Indeed, while the Chinese government has proscribed the use of the SCI-related indicators, it has not yet sanctioned any alternative appraisal mechanism.

Externally, the dominance of academic capitalism carries features of the scarcity regime, which advocates focusing investment on top institutions and researchers—through constant and rigorous selections—in order to maximize research returns. Researchers are thus propelled to publish as much and as quickly as possible in journals with high impact factors, which in turn generate good citation performance; their universities benefit hugely from such citations in the exercise of academic rankings. If Chinese universities' ranking outcomes are hindered in this new policy environment, the government (and the universities as well) might want to revert to the old rules. ◢

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World-Class Universities in China's Heroic Past

Rui Yang

Abstract
China's early modern higher education institutions achieved tremendously in terms of integrating Chinese and Western ideas of higher learning. This proves that it is possible, albeit extremely difficult, for Chinese educators to adapt a Western model of the university to the Chinese situation. As a revealing facet of modern Chinese history, this achievement has great implications for university development today and deserves much more research.

Recent decades have seen China's intensifying aspiration to catapult its premier universities to the forefront of global rankings. Precisely a century ago, newly established higher education institutions in China had already gained a global reputation as world-class. Although early modern times were disastrous for China as a nation, they were a golden age for higher education modernization. Unlike the Western idea of a university, which developed as practical experience accumulated, the Chinese understanding of modern universities predated practice and rapidly achieved maturity during the Late Qing reforms (1901–1912). Its high achievement in learning from the West was never surpassed later—neither by the Communist mainland, nor by nationalist Taiwan, nor by colonial Hong Kong.

Missionary Colleges
Starting from the early twentieth century, missionary colleges were established in China and quickly reached an international level. Confronting China's millennia-old culture and sophisticated intellectual traditions, they pursued cultural conquest with utmost vehemence and served as a conduit for introducing core Western values and knowledge. Tengchow College, in 1882, was the earliest Christian higher education institution. By the early 1940s, 13 Protestant and three Roman Catholic institutions were established in China. Set up by the Methodist Episcopal Church South in 1901 and seen as the first fully Western-style university in China, Soochow University played a significant role in projecting American influence into China's earliest stage of modern higher education development. St. John's University is also known for having introduced an American model of higher education in China.

Exerting a historical influence on the early development of Chinese higher education, missionary colleges set examples in educational patterns within essential dimensions, including the purposes and ideals of a university. Both the Chinese students who studied and lived at the colleges and the foreign educators who taught and administered there, reached a considerably high level of sophistication of cultural hybridization of Chinese and Western intellectual traditions. Some became renowned centers of research on China, including Yenching University, Shantung Christian University, and St. John's University. Through incorporating Chinese traditions into an otherwise basically Western curriculum, they developed a global vision of scholarship and a unique educational model.

Graduates from missionary colleges became pillars of the nation in the first half of the twentieth century. Owing to their academic excellence, many colleges gained a reputation at a world-class level and were acknowledged internationally. They developed many of China's first academic programs, including anthropology, economics, journalism, law, and sociology. Yenching University was ranked as one of the two best universities in all of Asia by an international review carried out in 1928 by the University of California, allowing its graduates to be directly eligible for graduate studies in the United States. They conducted cutting-edge research, in fields such as agriculture at the University of Nanking, cultural history at Shantung Christian University, folklore, folk art, and music at Fukien Christian University, and museum studies at the West China Union University.

Higher Education Institutions Founded by the Chinese
By 1895, when China lost the war to Japan, establishing modern higher education institutions to learn from the West became even more imperative to rebuilding the nation. New colleges were set up by official and gentry elites alike to offer training in Western science and technology. During the period from 1862 to 1898, the reformists founded

44 new institutions to offer, for the first time in China, courses on Western learning, including foreign languages, natural sciences, and practical technologies. The first was the Tongwen Guan in 1862, to train interpreters in Western languages. A new department of mathematics and astronomy was added in 1866 to teach Western science. It was merged into the newly established Imperial Capital University in 1902.

One such institution with a historical niche was the Imperial Tientsin University in 1895. Patterned after Harvard and Yale and later remodeled on the Japanese Imperial University, it was China's first "perfectly justifiable" modern university in which it was possible to learn Western knowledge in a comprehensive and systematic manner. It was also China's first government-run modern university to fully adopt a Western university education model to train engineers in a way that would look familiar today. With a constitution clearly stating its mission, vision, and foundation—the first one in China—it demonstrated a sophisticated understanding of a university in all its essential dimensions.

China's modern higher education institutions were established to absorb Western learning in order to respond to pressing needs of national unity and economic progress required to withstand an increasingly aggressive imperialistic threat. Successfully and comprehensively introducing Western learning into China, they trained professionals to support a disaster-ridden society, and conducted pioneering research in all disciplines. When the flames of battle raged in most parts of China, it is amazing to see how they steadfastly maintained their high academic standards. Joseph Needham hailed Zhejiang University as the "Cambridge of the East." Even more legendary was the Southwest Associated University, which produced a remarkable quality of scholarship across disciplines.

Noteworthy Historical Experience

Responding to the sharpening crisis facing the nation, China's modern higher education institutions aimed to judiciously combine learning from Western traditions and the ideological, intellectual, cultural, and educational specificity of the Chinese. Their development in early modern times was characterized most prominently by these endeavors, with sophistication at the individual, institutional, and systemic levels in managing relations between China and the West in education, scholarship, and university operations. These achievements were reached soon after the Western concept of a university was introduced into China. They set high bars even for today's practice.

Due to the lack of a strong central government, China's heroic past was a time of turmoil and chaos, yet marked by a real effort to establish a "university" in the sense of its defining values of autonomy and academic freedom. The inconvenient truth is that such achievements were rarely exceeded over the ensuing half century—neither in Mainland China, nor in Taiwan, nor in Hong Kong. Intermittent spasms and outpourings of resources do not guarantee sustainability. Neither finance nor ideology is the root cause here: The crux is cultural. China has much to learn from its own history, especially from modern times, when early encounters between Chinese and Western traditions occurred. ◢

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China's modern higher education institutions aimed to judiciously combine learning from Western traditions and the ideological, intellectual, cultural, and educational specificity of the Chinese.

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Higher Education Studies and Quality Assurance in African Universities

Hardson Kwandayi

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Abstract
Quality assurance is an emerging area in higher education in Africa and its implementation could be enhanced through capacity building of institutional managers and quality assurance practitioners. One way of building capacity is through studying higher education as a discipline. Once managers understand major higher education concepts and theories, implementation of quality assurance systems is more likely to improve, thereby enhancing the quality of academic provision on the continent.

More recently, in 2019, the African Union established the African Standards and Guidelines for Quality Assurance for Higher Education.

Quality assurance (QA) in higher education has become a global phenomenon. Its growth is due to several factors such as massification of higher education (HE), competition, privatization, emergence of several modes of HE delivery, and an increase in cross-border education, which all resulted in deteriorating HE standards. As part of the global growth in QA, continental and global agencies have been set up. For example, European Union countries came together to establish the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG–QA) in 2005. More recently, in 2019, the African Union established the African Standards and Guidelines for Quality Assurance for Higher Education (ASG–QA). The ASG–QA are a set of standards and guidelines for internal and external quality assurance in higher education institutions (HEIs) in Africa. However, implementing the ASG–QA has slowed down due to limited QA capacity on the continent.

Higher Education Studies as an Anchor for Quality Assurance Standards
Successful implementation of the ASG–QA can be improved if HE managers are equipped with relevant concepts and theories presented in HE studies. This is important, given that the ASG–QA are premised on such concepts and theories. A close analysis shows that nearly all the 13 ASG–QA are aligned to major courses which are taught in HE studies, including leadership and management; financial management; teaching and learning; program and curriculum design; and strategic planning and management. These courses are important anchors of quality assurance in HE. It is therefore important that HE administrators be exposed to HE education studies in order to enhance the implementation of the ASG–QA, either through formal education or through in-house training (given the limited number of institutions offering HE studies as a discipline in Africa).

Limited Opportunities to Study Higher Education in Africa
While the study of HE can enhance the implementation of the ASG–QA, opportunities to study HE in African universities are limited. In 2014, Laura Rumbley and her colleagues at Boston College's Center for International Higher Education carried out a research study on the worldwide offer of HE studies programs and research centers of HE. Their findings showed that the United States had the largest number of HE research centers (50), followed by China with 45, the United Kingdom with 18, and Japan with 11. Germany, Canada, and Australia follow, with eight, seven, and five, respectively. Africa was home to only six, or 3 percent, of the world's HE research centers.

In Africa, only a few universities (such as the University of KwaZulu Natal and the University of Cape Town in South Africa and Makerere University in Uganda) offer academic degrees in HE up to the PhD level. This trend only started recently, with the support of development partners. Expanding the study of HE could greatly enhance the capacity of managers to implement QA in African universities.

Relevant Higher Education Courses for QA
A number of courses have a high potential to enhance the implementation of the ASG–QA, as listed below.

▶ *Strategic planning and management*: Most higher education studies (HES) programs include strategic planning and management. This course explores the nature of strategies and strategic decision-making in colleges and universities. It also examines the

strategic planning process starting with environmental scanning; an analysis of institutional strengths, weaknesses, opportunities, and threats; identifying strategic issues; and strategy formulation, implementation, and evaluation. This course provides useful background information on the ASG–QA Standard 1, which is strategy, vision, and mission. Background information related to Standard 1 helps translate strategic objectives into clear strategic plans and policies. A basic understanding of strategic planning also helps integrate strategic planning and QA, which is currently receiving serious attention in quality management HE.

► *Curriculum and program development*: This is an important QA area related to Standard 7 of the ASG–QA, which is defined as "design, approval, monitoring and evaluation of study programs." Under this standard, an institution should have policies and procedures for introducing new programs. Programs are also expected to have learning outcomes that are competence based. Procedures for amending or phasing out programs should be clear. In-depth understanding of program design and development would therefore contribute useful knowledge and skills to executing QA standards and guidelines under Standard 7. Such guidelines could be better understood by studying curriculum and program development in a HES program. The common course content explores theories, practices, and research related to curriculum in HE course and program planning, development, and implementation; teaching and assessment; student learning; and curricular innovation and curricular change. In addition, this course usually covers measurement and evaluation. Students are exposed to various assessment techniques (including development and validation of these techniques) to improve teaching and learning. Key terms used in measurement and evaluation, such as validity, reliability, and usability are discussed. Principles of test construction, administration, and scoring, as well as item analysis, are also covered.

► *Teaching and learning*: Teaching and learning is a common course that is often covered in HES programs. Its content examines a variety of effective teaching and learning strategies premised on educational theory and practice. Generic content for this course includes: principles of effective teaching and teaching preparation; understanding effective learning styles and strategies; instructional approaches and lesson planning; microteaching methodologies; assessment strategies; and peer teaching, peer evaluation of teaching, and teaching environment in the twenty-first century. Understanding these aspects is critical to effectively implement ASG–QA Standard 8 on Teaching, Learning, and Assessment.

► *Financial management*: Effective financial management is the cornerstone of successful university management. Even when an institution successfully mobilizes large amounts of financial resources, not much can be achieved without putting in place cost-effective financial management strategies. Effective financial management is considered a critical facet of quality management in university administration. In this regard, universities are now urged to implement international QA financial management standards such as Standard 4 of the ASG–QA. It is therefore important that HE managers familiarize themselves with theoretical aspects of financial management in HE. As costs escalate and resources dwindle, effective, ethical, and socially responsible management of financial resources becomes an increasingly important skill in tertiary institutions. Hence, a HES financial management course explores financial issues specific to HE such as budgeting and budget management, resource allocation, asset management, government appropriations, financial planning, and fundraising. These topics would ensure quality management of financial resources characterized by effective strategies with respect to revenue management, internal controls, debt management, risk management, assets management, and procurement management.

Conclusion

It is important that HE managers in general, and QA practitioners in particular, undergo a basic training in HE studies to enhance their conceptual understanding of HE concepts and principles, which are critical to enhance the implementation of QA in HEIs. African universities should urgently pay attention to the study of HE, which remains the Achilles' heel of education on the continent. ◄

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How Has COVID-19 Affected Higher Education and Research in African Countries?

Ross Jansen-van Vuuren and Alhaji N'jai

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Abstract
COVID-19 has affected scientific research, teaching, and learning globally. In African low- and middle-income countries, this has been felt more acutely due to preexisting limitations such as poor internet access and dependence on international collaborators for equipment. The pandemic has also brought new challenges to African universities, including the diversion of substantial resources to COVID-19-related needs. Positive outcomes include recognition of the urgent need to address underlying challenges and innovative endeavors in some institutions.

In resource-limited contexts, however, the pandemic has been particularly disruptive for teaching, learning, and research in the sciences.

Aside from catastrophic loss of life and well-being, COVID-19 has significantly disrupted the global scientific enterprise. This is no different in Africa, where COVID-19 has reshaped scientific research.

COVID-19 Reshapes Scientific Research in Africa
The African Academy of Sciences has laid out research priorities, and institutions and research groups with capacity and funding are working diligently to address them. For example, the Pasteur Institute in Dakar, Senegal, has launched a rapid COVID-19 diagnostic test platform ("Diatropix"), while institutions in several countries are undergoing clinical trials of COVID-19 therapies and vaccines within the ANTICOV consortium. Furthermore, approximately 1,200 journal articles (3 percent of the global output) reporting science outputs related to COVID-19 were produced in Africa (2019–2020).

In resource-limited contexts, however, the pandemic has been particularly disruptive for teaching, learning, and research in the sciences. Faculty and researchers in African low- and middle-income countries (LMICs) were already facing challenges. COVID-19 not only exacerbated these challenges, but also introduced new ones, exposing sharp disparities between institutions globally and within countries. We obtained feedback from scientific faculty and staff from various African universities based in Ethiopia, Kenya, Nigeria, Sierra Leone, Somalia, South Africa, Sudan, Uganda, and Zimbabwe to better understand how COVID-19 has affected research, teaching, and learning.

Poor Digital Literacy and Internet Access Hampers Online Meetings and Classes
Like in most Western countries, the outbreak of COVID-19 in many African countries heralded a series of major lockdowns and subsequent closing of in-person classes and laboratories, with many students and instructors returning to their rural homes. While higher educational institutions worldwide grappled with the use of online learning platforms, in African LMICs, poor technological infrastructure, internet access, and digital literacy made online teaching and learning extremely challenging for students and teachers alike. For example, only 33 percent of Zimbabwe's total population are internet users and, although mobile data is amongst the cheapest in Africa, inflation (322 percent in February 2021) has rendered the cost virtually prohibitive. In contrast, one faculty member described how internet in Kenya is cheap and accessible, and many students were given support with data bundles. However, other faculty from Kenya (and one Nigerian professor) acknowledged that stable internet depends strongly on specific location, both in rural and urban settings. Encouragingly, a South African professor described how cell phone and other network service providers generously donated data and devices to universities to support needy students. Overall, online learning appeared to be detrimental to the quality of students' learning and their ability to engage and continue with their education. In some cases, students dropped out altogether or were denied access because they were unable to pay fees. Nigeria is facing the challenge of increasing involvement of idle students in violent political groups.

International collaborations were also affected, as students were unable to participate in international exchange programs, and networking/collaboration opportunities (for students and faculty) were severely hindered without international conferences/events or digital support for virtual events. In addition, students experienced less support from supervisors/faculty without face-to-face contact (and the internet challenges

described above). Since African culture relies heavily on in-person meeting to develop personal trust, this change involved a significant mindset shift.

Obstacles to Experimental Research
Online learning is impossible for practical work/research in the experimental sciences. As with many universities globally, laboratories were initially closed, resulting in the loss of research (time and experimental work/samples), and fieldwork was inhibited. Because of preexisting limitations regarding scientific equipment and expertise, faculty from different African countries described how their research was hindered because they were unable to send samples for testing and analysis, purchase research materials, or fix research equipment due to their reliance on international resources and expertise. Moreover, because many African chemical suppliers import chemicals, the lockdown in March 2020 and subsequent travel restrictions resulted in dwindling supplies. Some suppliers closed indefinitely. Meanwhile, demand rose steeply for the chemicals required to make hand sanitizer and other COVID-19-related substances. Even issues such as reduced vehicle capacity (public transportation) affected research, as it made it increasingly time-consuming for laboratory-based workers and students to get to work, reducing their time at the bench.

Diversion of Resources to COVID-19 Related Needs
Many African universities already struggle with inadequate funding and resources, but the pandemic further exacerbated this. Meagre government funding was prioritized for COVID-19-related needs rather than education and research. Both students and faculty faced reduced opportunities for scholarships and grants, and existing grants or budgets with fixed timelines were terminated without satisfactory completion. Additionally, as restrictions lifted, faculty across various African countries reported how funding was needed to implement COVID-19 precautions, such as purchasing masks, sanitizer, temperature monitors, and to ensure adequate hand washing facilities and cleaning—particularly in countries with limited water supplies—as well as training staff regarding precautionary measures and online learning. Already crowded classrooms and labs were further strained by social distancing requirements, and some university buildings were even taken over as quarantine facilities (e.g., in Ethiopia), further limiting available resources.

Rising inflation in many African countries also put pressure on staff/faculty and students, many of whom already struggled with low wages or limited funding support, and disparities widened as those already disadvantaged were disproportionately affected. Inflation also increased transport costs, making it increasingly difficult to travel for fieldwork, especially to rural areas, and, as one Ugandan professor mentioned, reimburse research participants for travel expenses. Some faculty and staff resorted to industrial strike action, requesting better conditions to reflect rising living costs, but this further disrupted research and teaching.

National Context Plays a Major Part
In many LMICs, preexisting inadequate and over-stretched health systems, incompetent leadership, and poor information dissemination have only served to increase the pandemic's risks and challenges. African universities have been, and continue to be, significantly negatively affected by these factors, including by the prevalence of death and bereavement within university communities (i.e., deaths of prominent professors), and staff and students justifiably fear infection and are preoccupied with risks and uncertainties. COVID-19 has disrupted classes and research, lowered the quality of learning, and delayed graduation for students, with potentially detrimental long-term personal and national consequences.

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Glimmers of Hope

Despite the immense challenges facing these institutions, there are glimmers of hope. For example, poor digital literacy in rural Ethiopia has prompted an Academics Without Borders-led collaboration with Injibara University to develop digital literacy skills of faculty, staff, and students. Necessity, "the mother of invention," has resulted in locally led innovations such as test kits developed by the Nigerian Institute of Medical Research (cheaper and more efficient than the most commonly used PCR test). It is reassuring to see African universities stepping up to the challenges of COVID-19; however, international partnerships are vital to addressing some of the deep-rooted inequities exposed through the crisis. ◀

European Higher Education: Looking Back, Looking Forward

Andrée Sursock

Abstract
Up until 2010, reforms were relatively coherent across Europe, owing to a number of European-wide processes. However, the lingering impact of the 2008 financial crisis, combined with international rankings, resulted in a fragmented policy landscape and a relative "loss of appetite" for European policies. If managed judiciously, a new European initiative has the potential of bringing the continent together again.

Since 1999, Europe's universities have undergone considerable transformation and renewal processes. These transformations are a response to changes in the global, European, and national environments, and the result of intentional change initiated by states, universities, or both.

Looking Back: 1998–2010

Looking back at the past twenty years, the salvo of deep changes in Europe came in 1998, when French Minister of Education Allègre invited his British, German, and Italian counterparts to a ceremony at the Sorbonne, where they pledged to initiate higher education reforms together. The other European countries clamored to join in. The Bologna Process was thus born, in a context where the growing importance of globalization, the knowledge-based economy, information and communication technology, internationalization, quality, and entrepreneurship were identified as major change factors.

The responses to these trends translated into state-driven reforms, albeit in many cases at the (more or less discrete) prodding of rectors. Although the focus and shape of reforms depended on the country, there were some common elements that were framed by the European Union's "modernization agenda" for universities. The top four national reforms concerned quality assurance, research policies, institutional autonomy, and funding. Other, less frequent, changes included governance reforms and new academic career models.

The reforms took place in the broader context of major transformations in the higher education landscape.

The reforms took place in the broader context of major transformations in the higher education landscape. Some countries—mostly in Central and Eastern Europe—saw a significant increase in participation rates, associated with a substantial growth in the number of (mainly private) institutions. Other countries—mostly, but not only, in Western Europe—saw mergers of universities or the creation of consortia, in an effort to increase universities' national and international impact. With the first international ranking in 2003, which revealed the superiority of US universities over European universities, this took on a sense of urgency.

The scale of reforms in that first decade cannot be underestimated. In many countries, universities implemented more than one reform at a time, managing massive changes resulting from the Bologna Process, while responding to growing pressures

linked to high unemployment rates, and striving to improve their research capacity and international impact.

These reforms have reshaped the internal organization of universities. For instance, doctoral cycle reforms led to the establishment of new structures (doctoral schools) and new processes (cosupervision). The momentum created by the European Higher Education Area and the European Research Area resulted in the blossoming of partnerships among universities and between universities and the private sector. The changing nature of European and national research funding schemes, combined with greater emphasis on internationalization, resulted in a growth of administrative services in universities, often at the central level, and the professionalization of administrative staff. Greater autonomy improved the quality of university leadership and universities' strategic capacity to sharpen their institutional profiles and increase their international attractiveness. The development of internal quality assurance processes was identified as the most important internal change by 60 percent of the institutions responding to a European survey, notably those with the strongest international aspirations.

The Recent Period: 2011–2020

The second decade of the century began under the dire consequences of the 2008 financial crisis and the rising tide of illiberalism, leading to limitations to institutional autonomy. In some countries, a demographic decline led to a shrinking of the private higher education sector, while aging populations increasingly weighed on public finances. The weakening of European policies and a sense that the Bologna Process was perhaps on the wane resulted in a diversity of national approaches, albeit with some common elements: budget tightening, increased workloads, and casualization of academics; and greater stress on learning and teaching and on labor-skills development. A variety of funding instruments became popular, foremost among them performance-based funding.

The lingering impact of the financial crisis, combined with ongoing concern about international rankings, resulted in a number of national "excellence initiatives" providing concentrated funding to a selective set of universities.

Looking Forward: 2021–2030

The third decade is starting under an even darker cloud. As the economic situation was beginning to improve, the COVID-19 pandemic hit and constituted a full-scale stress test for everyone and every organization around the world, including universities, their students, and their staff.

COVID-19 has not been the only disruptor. Others change drivers comprise the increasing role of new actors (for example, third-party education providers and EdTech companies), and new trends affecting all three university missions. Examples include digital transformation and its consequences on graduate attributes and the organization of learning delivery, as well as the growing importance of experiential learning, short cycle degrees, microcredentials, and stackable badges. Notable trends within research include the Open Science movement; the push for, and resistance against, limiting research to innovation; the rising importance of translational and interdisciplinary research; and the move toward qualitative research assessment. The UN Sustainable Development Goals and the environmental crisis are stimulating universities to think of ways to integrate all three missions through challenge-based teaching, research, and societal engagement.

While these global trends must be addressed by all universities around the world, a declaration by French President Macron in 2017 served as a reset for European university cooperation. The "European University Initiative", which funds 41 university alliances across Europe, has the potential of both addressing these global trends and injecting new momentum through coherent policy approaches. Though very recent, this initiative has reenergized what was thought to be a weakening Bologna Process by revealing the need to change national regulations in order to unlock the potential of these strategic alliances. Yet, this initiative involves only 5 percent of European institutions, enrolling 20 percent of European students (284 universities in 31 countries). A majority of institutions and students remain outside this scheme, and some countries are not participating at all. It will be crucial to avoid leaving them on the side of the road at a time when bold changes are required of all.

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Four Ways for France to Get Higher Marks

Francis Vérillaud and Manon Guyot

Abstract
The COVID-19 crisis has challenged the French higher education and research system. The government must now engage in sound reforms to make the system sustainable in the long run. The challenge is finding out where to begin and identifying what mechanisms are in place and how to change them.

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France has been losing its global visibility both in terms of attracting and retaining international students on French soil and publishing international research papers.

The COVID-19 pandemic has put universities to the test. The French higher education and research (HER) system was already riddled with multiple challenges: severe underfunding, demographic influx, and a lack of attractiveness, to cite only a few. All of these have become even more salient with the pandemic. From student despair to heavy staff fatigue, multiple tensions are at work in French universities. If anything, COVID-19 has revived the debate about what these institutions should offer, and to whom. It has also evidenced how France's HER is dramatically weakening.

France's Struggle to Make its Mark
France has been losing its global visibility both in terms of attracting and retaining international students on French soil and publishing international research papers. In 2000, France ranked 5th by number of scientific and technical publications, then fell to 8th in 2016. With 30 French institutions listed in the <u>Shanghai 2020 ranking</u>, France only ranked 10th, behind the United States (206 institutions ranked), China (144), the United Kingdom (65), and Germany (49).

These lukewarm results show that France is struggling to compete internationally and has to become more attractive to both students and faculty worldwide. Better working conditions abroad—not to mention salaries—have led the best French researchers, and often the best students, to leave the country. Such a brain drain can, in part, be explained by the chronic underfunding from which the French HER is suffering. France's HER economic model has reached its breaking point.

In Dire Need of a New Economic Model
France needs to expand its public spending on higher education and research. Specifically, France ought to dedicate 2 percent of its GDP to higher education (vs. 1.5 percent to date) and 3 percent to research (vs. little more than 2 percent to date). Concretely, that would mean EUR 10 billion and EUR 20 billion, respectively. Overall, France's indicators remain below the OECD average. As a comparison, Germany dedicates 3.1 percent of its GDP to research, and Japan 3.2 percent.

But such expenditure cannot rest solely on public authorities, whose budgetary means are all the more constrained following the COVID-19 crisis. An increase in private funding is equally necessary—through a moderate raise in tuition fees for bachelor and master degrees (and excluding doctorates). In France, tuition fees for a bachelor and a master cost respectively around EUR 170 and EUR 243 per academic year. By contrast, annual university fees in Spain are around EUR 1,500; EUR 1,600 in Italy; and EUR 2,000 in the Netherlands—not to mention Canada (EUR 4,600), nor the United States (EUR 7,400). Hiking tuition fees for French universities up to EUR 1,000 per academic year would intrinsically change France's HER economic model.

A Three-Act Structure for Students
Such an increase in tuition fees, though moderate, will inevitably be seen as inconceivable by students unions, which served a population of <u>2.7 million students</u> in 2019–2020. In France, one student in five leaves higher education without graduating—around 75,000 students per year. And only 30 percent obtain their bachelor's degree in three years, and 40 percent in four years. These alarming numbers call for a new student-oriented approach to tuition fees. The nucleus of that approach could be a universally accessible system of income contingent loans (ICL), to cover not only tuition fees but also living expenses. ICL aims to democratize education by providing all students with the

financial means to study, as is done in Australia, New Zealand, or the United Kingdom. But this is only acceptable and justifiable if certain conditions are met. France must expand its current financial support for those who really need it. Around 222,000 students currently benefit from French social assistance schemes. That is too small a number. A final proviso to be noted: To prevent student loan balances from spiraling out of control, there must be a sustained commitment to HER by the state. The French government could adopt a multiannual programming law for higher education, similar to the one that already exists for research.

The Need for an Evolution of Governance

Education in France can be defined as a *sui generis* system. Its fragmented and stratified landscape between different administrations, universities, independent research institutions, and mixed research units poses problems of liability and governance.

Comparing the French model with foreign examples illustrates to what extent the governance model of French universities is not self-evident. The fact that members of the board of governors (*conseil d'administration*) are essentially chosen by staff, students, and faculty members is highly atypical. Similarly, electing the president—an indirect appointment by staff, students, and faculty members—remains rather unusual. While such appointment methods have some perks, they can also exacerbate internal quarrels or prevent out-of-the-box thinking. The boards of governors of French institutions should be reformed in accordance with international standards (limited number of members, majority of external members). By and large, it seems quite logical to choose a president for his or her management skills and leadership, and not necessarily from among the faculty members of the university.

French Universities Must Be Accountable—But to Whom?

In France, the intricate relationship between the state and universities illustrates how highly the latter depends on the former. The ministry of higher education, research, and innovation (*Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation*) oversees everything from recruitment procedures to funding, including conferring degrees. Over the past 15 years, French universities have undergone a large series of reforms aimed at improving the autonomy of institutions—or lack thereof. Granting an appropriate level of autonomy to French educational bodies would significantly boost their performance.

To reach this goal, <u>Institut Montaigne</u> published a <u>report</u> laying out several recommendations, among which we can single out the following one: reduced supervision and broader responsibilities for universities. In line with the approach advocated in the report, a funding agency would specifically be responsible for allocating resources depending on the project and strategy of each educational institution, and also according to its performance. This agency would rely on a modernized, national evaluation commission for research and education, applying internationally practiced assessment methods. Absent from such a link with universities, the ministry could refocus on its strategic missions and leave financial support for students and recruitment (e.g., tenure tracks) to universities.

Conclusion

France can no longer delay reforming its HER system. The government needs to take action if it truly wants to generate a positive impact on education. A new mode of governance must be given to universities, which ought to become the driving HER actors in France. Limited state control over universities, arm-in-arm with significantly increased public funding, would allow French institutions to truly reach their potential. Through the ICL system, students would be able to become autonomous instead of remaining dependent on their families. ◢

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Scotch Quality: The Distinctiveness of Scottish Higher Education

Neil Kemp and William Lawton

Abstract

Since the establishment of the Scottish Parliament in 1999, the distinctiveness of Scotland's higher education system within the United Kingdom and internationally has increased. Scotland has carved out a space in higher education that reflects its distinct political culture. Aspects of this distinctiveness revolve around Scottish conceptions of the public good and policy making defaulted to finding collaborative solutions to local, national, and global problems.

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Societal benefit—the public good—is routinely prioritized over private gain in policy making. This is a fundamental aspect of Scottish higher education.

Legislative responsibility for education in Scotland lies wholly with the Scottish parliament, and there have long been differences between higher education in Scotland and in the rest of the United Kingdom. A recent study by the authors ("A Strategic Analysis of the Scottish Higher Education Sector's Distinctive Assets," British Council, 2021) proposes that these differences can be characterized as constituting a series of distinctive assets. These assets are not just about excellence; additionally, and uniquely, they set the Scottish higher education sector apart from its main comparators. This article explores these assets and considers some growing challenges.

Education as a National Public Good

Societal benefit—the public good—is routinely prioritized over private gain in policy making. This is a fundamental aspect of Scottish higher education. The propensity in Scotland to legislate for the collective good has many manifestations in higher education: resistance to tuition fees for Scottish (and, until Brexit, EU) students; a whole-sector approach to widening participation from underrepresented communities; the facilitation of transfer to universities from colleges; targeted university access programs; community outreach; and the recognition of prior learning, including in the workplace. Each Scottish university annually updates an "Outcomes Agreement" with the government that includes targets for widening participation.

The modest size of the Scottish sector means that representatives from all 19 universities can and do meet together. This facilitates the collectivist ethos and unity of purpose.

A remarkable aspect of Scottish higher education lies in its relationship to the Scottish government. What is distinctive, certainly within the UK context, is an acceptance that the mandates of the two entities should have a great deal of overlap and that universities can and should deliver governmental priorities. While this is not unheard of elsewhere in the world, in most such places universities operate as agencies of the state, without autonomy from government. In Scotland, the coincidence of interests is (more or less) freely given.

Enhancing the Student Experience

There is a whole-sector approach to improving learning outcomes, student well-being, and student experience. Student benefit is placed at the centre of quality assurance considerations at all stages in the university journey, from initial contact to alumni. Central to this approach are "Enhancement Themes" delivered sector-wide by the Scottish branch of the UK Quality Assurance Agency, in partnership with universities and with staff and students as stakeholders. Initiatives that derive from the Enhancement Themes include addressing the support needs of research students; improving the experiences of distance learning students; and enhancing graduate employability.

Enhancing graduate employability is embedded in degree programs at Scottish universities. Collaboration between the higher education sector and employers means that 95 percent of Scottish students are in employment or training within six months of graduation. Students are able to access work placements, take on industry-led projects, and undertake support programs from their university to assist them in developing start-up companies. The latter have contributed to Scottish business success, for example, growing new digital technology companies in the Dundee–Edinburgh–Glasgow hub. International students are involved and have stayed to become local entrepreneurs.

Positive Interplay of International and Domestic Activities

Scottish universities have a long tradition of international collaboration: Four are over 400 years old. The past 10 years have seen a rapid increase in internationalization activities across all Scottish universities. On a per capita basis, Scotland is second only to Australia for international student enrollments. It has four universities ranked in the top 200 globally and seven in the top 400—second only to Switzerland, per capita. Some 36 percent of academic and research staff in Scottish universities are international and this proportion has increased significantly in the past five years.

Scottish successes in internationalization are one consequence of the joined-up approach between universities and government. An international dimension to the public-good ethos is provided through the Scottish government's commitment to the UN Sustainable Development Goals, and these inform policy decisions relating to higher education. National and international activities interrelate dynamically: The national funding of research and teaching contributes to the infrastructure that enables Scottish universities to compete and succeed globally. International engagement benefits wider Scottish society through research innovation, quality enhancement of programs, building business links, cultural enrichment, employment growth, and revenue. Universities take advantage of the reputation of the United Kingdom as a quality international study destination, while at the same time offering a Scottish differentiation.

World-Class Research that Delivers Local Benefits

Scotland's research output is highly dependent on its universities. Its distinctiveness lies in the juxtaposition of excellence with a coordinated, sector-wide national research strategy. Success is apparent from the impressive international indicators of Scottish research impact, including publications per researcher; share of publications with international collaborators (more than half); and citations per researcher. On a per capita basis, Scotland outperforms the rest of the United Kingdom and most other countries on these indicators. The outward-facing orientation of Scottish research places it among the global leaders across many disciplines, including veterinary and medical sciences; earth, environmental and marine sciences; economics; archaeology; and philosophy. Scottish universities have been notably successful in the competition for both UK national research funds and the European Union's Horizon 2020 fund.

Recent investment in industry-led interdisciplinary "Innovation Centres" illustrates how Scottish political culture informs policy making. Their areas of focus range from climate change to aquaculture, and funding is tied to solving global problems, enhancing national economic performance, and supporting local communities. These centers manifest a complex balancing of public and private interests, as well as an attempt to accord equal weight to regional development, the national public good, and commercial imperatives.

Challenges Ahead

University finances are under extreme pressure. Scottish government funding has been declining in real terms over the past five years and Scottish institutions now receive less public funding per student than elsewhere in the United Kingdom. This has resulted in an expansion of enrollments of fee-paying students (mainly international) to cover shortfalls. This leads to greater vulnerability to both the United Kingdom's departure from the European Union and the COVID-19 pandemic.

Although pro-EU sentiment remains strong in Scotland, Scottish universities will suffer the same consequences from Brexit as those felt elsewhere in the United Kingdom. These include a decline in EU student enrollments, a reduction in student exchanges after withdrawal from the Erasmus program, fewer EU researchers and academic staff, and great uncertainty over research funding.

The full impact of the pandemic on HE delivery has yet to evolve but one, over the last year, is the significant decline in international student mobility, with lower new enrollments and associated revenue losses for universities. It has also greatly reduced the mobility of researchers and academics. But, on a more positive note, it has unleashed a torrent of energy, with universities demonstrating imagination and innovation in pedagogy, assessments, and student support. Additionally, the Scottish government provided emergency funding for research, and universities played a crucial role in vaccine and testing research and in communicating knowledge to the public. ◢

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Lone Genius or Swarm Intelligence? Myths about Germany's Sponsorship of Research Institutes

Justin J.W. Powell and David P. Baker

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Abstract
Countries around the world have emulated Germany's model of the university devoted to research-based teaching. The independent, extra-university research institute led by a leading "genius" scientist was also developed in Germany. In recent decades, Germany's research budget and science system continue to be split between its universities, which are relatively underresourced, and institutes enjoying favored sponsorship and significant funding. We argue that Germany could be even more productive with stronger support for the *research university*.

Scientists in Germany publish more articles in leading journals than those in any other nation, except the United States and China. But unlike in the United States and many other countries, Germany's scientific community is significantly split between universities, which enjoy relatively similar reputations while suffering chronic underfunding, and independent research institutes, led by selected individual "geniuses" and receiving considerably more funding. Under this dual-pillar policy approach, universities are supposed to specialize in the education of the next generation of scientists, whereas cutting-edge research is thought to be the preserve of hundreds of renowned—and much better resourced—independent research institutes.

Germany's research institutes are organized under large umbrella associations: the Max Planck Society (1948), Fraunhofer Society (1949), Leibniz Association (1990), and Helmholtz Association (2001), each with tens of thousands of scientific personnel with few, if any, teaching obligations. In 2017, Germany spent 3 percent of its considerable GDP on R&D, and thus achieved the European Union's recommended target by spending among the highest rates in the European Union. Yet its universities received only 17 percent of these funds; a significantly larger share went to the institutes, usually funded jointly by federal and state (*Länder*) governments. Thus, this dual-pillar policy represents a counterfactual case to understand the relative importance of universities in science production, which we discuss in our forthcoming book *Global Mega-Science: Universities Scientize the World* (Stanford University Press).

Dual-Pillar Research Policy Myths
Despite their more modest funding per capita and less than optimal research environments—not to mention their growing teaching and training responsibilities, as higher education participation rates have massively increased—universities' outstanding performance belies the myth that research institutes are where almost all significant German science is conducted. In fact, universities produce the majority of new German scientific and technological research. Recently, after an analysis of over 176,000 STEM+ journal articles with at least one Germany-based author since 1950, we found that for every new discovery that institutes publish, universities produce three.

Also, a core tenet of the myth about institutes is the belief that relieving researchers of teaching and administrative responsibilities necessarily makes them more productive. Yet, this likely provides only a modest advantage. While institute scientists are more productive than university scientists, it is only by an estimated quarter of a paper per annum per researcher. Indeed, to match universities' huge aggregate research output, Germany's already high spending on institutes would need to increase by two-thirds, an unrealistic proposition.

A core tenet of the myth about institutes is the belief that relieving researchers of teaching and administrative responsibilities necessarily makes them more productive.

Another popular myth is that institute scientists will use their better-funded research environments to collaborate with their busier university colleagues. But, despite several initiatives, this has been slow to happen, as institute/university coauthorships increased from just 3 percent to 12 percent of all publications between 2000 and 2010. Further, planned bridges between these two sectors, such as joint graduate and doctorate programs shared by both organizational forms, remain only partially built. Even in an era

of collaboration, communication between scientists in the country's different organizational forms is hindered by segregation and huge prestige differentials.

Perhaps the most cherished belief of all is in the superiority of the science produced in institutes. But, while institute-based researchers, often focusing all their energy on specialty fields, do produce many high-impact papers, universities publish twice as many papers in the leading journals, often collaborating with researchers from all other science-producing organizational forms. And while institutes extend scientific enquiry, acting as catalysts for the science system overall—and collaborate with leading scientists worldwide—universities publish on a broader array of scientific topics and collaborate more intensely via their embeddedness in diverse networks, educational and scientific. Also, scientists from both sectors win major scientific prizes such as the Nobel.

In some ways, none of this is surprising. After all, there are far fewer institute scientists; institutes have around one-sixth of university personnel. But the universities' achievements are remarkable, given that their funding has not kept pace with the substantial rise in student enrollments and the lack of dedicated research infrastructure that institutes enjoy. Heavy investment in the lone genius model may no longer make perfect sense in a world of global megascience, in which investment in the largest community of collaborating scientists possible is key. If policy moved in this direction, German universities could do so much more.

Yet research policy continues to emphasize increasing resources for institutes—while university-based scientists are relegated to fighting for competitive funding programs. And since tuition fees are almost nonexistent, universities can hardly cross-subsidize research with tuition as their American counterparts do.

Since the 1960s and especially over the past decade, chronic underfunding and expanding student enrollments have forced German universities to direct most of their allotted funding to teaching, rather than research, and professors have heavy teaching loads. Scarce research funding has become ever more crucial to help sustain university infrastructure—and provide support for young researchers. Several rounds of the national Excellence Initiative program, for example, have emphasized this competitiveness, yet have only provided quite modest, fixed-term funding enhancements for the winning universities. Research institutes, by contrast, have had steadily increasing budgets—and are now allowed to compete for additional research funds. While institutes do provide ideal research conditions for younger scientists, universities are still responsible to provide their educational programs and certificates.

The "Humboldtian" University Model: Emulated More Successfully Abroad

Elsewhere, country after country has emulated Germany's "Humboldtian" model of the research-oriented university that integrates research and teaching. The scientifically leading United States and the rising powers of China and South Korea, among others, have quickly and massively increased their science capacity by focusing their research efforts on developing their higher education systems overall to become successful collaborators—not only a few prominent universities. This general state support for all universities was, after World War II, the key to rebuilding German science. And it was the secret behind the extraordinary and sustained pure exponential growth in new discoveries over "the century of science."

Worldwide, university-based scientists now contribute to between 80 to 90 percent of the more than 2 million articles published annually. Thus, it is ironic that while Germany gave the world the research university model, in recent decades, it has not supported its own universities' research capacity at world-class levels. Germany should soon rectify this mistake by increasing overall funding (not only of highly competitive programs with modest success rates such as the "Excellence Initiative," but more generally). As universities worldwide provide the most essential platform for scientific exchange between scientists working in all organizational forms, policy must also more effectively facilitate collaborative activities between institutes and universities. In so doing, the country would make more optimal use of its large R&D budget. This would help Germany retain its advantage in an era of ever-greater global scientific competition. ◢

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STEM Student Learning across Countries

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Abstract

Universities contribute to economic growth and national competitiveness by equipping students with higher-order thinking and academic skills. Despite large investments in university STEM education, little is known about how the skills of STEM undergraduates compare across countries and by institutional selectivity. The authors have provided direct evidence on these issues by collecting and analyzing longitudinal data on tens of thousands of computer science and electrical engineering students in China, India, Russia, and the United States.

We collected internationally standardized assessment data on the critical thinking and academic (math and physics) skills of more than 30,000 STEM undergraduates in China, India, and Russia.

A major goal of undergraduate science, technology, engineering, and math (STEM) education is to help students gain higher levels of academic skills and higher-order thinking skills. Such skills contribute toward the productivity of higher value-added industries and innovation. Despite tens of billions of dollars invested globally each year to help engineering and computer science students develop academic and higher-order thinking skills, we still know very little about the degree to which students actually acquire these skills during their undergraduate studies.

To address this gap, we collected internationally standardized assessment data on the critical thinking and academic (math and physics) skills of more than 30,000 STEM undergraduates in China, India, and Russia. These three countries produce approximately half of the world's STEM graduates. We further expanded this dataset by including information on the critical thinking skill levels and gains of STEM students in the United States. We found substantial differences in skill levels and gains among countries and between elite vs. nonelite institutions.

Divergent Paths in Skill Levels and Gains across Countries

At the start of their studies, students in China and the United States have similar levels of critical thinking skills, which are much higher than skill levels of freshmen in India and Russia. Freshmen in China have the highest levels of math and physics skills, compared to freshmen in Russia and India. Freshmen in Russia have significantly higher levels of critical thinking and math skills, but not physics skills, compared with freshmen in India.

To what extent do students in these four countries improve their skills during college? With regard to critical thinking, whereas students in China, India, and Russia make no gains (or even worsen) during university, students in the United States make significant gains. China's advantage in math and physics skills narrows considerably after two years due to cross-country differences in skill gains. Skill gains from the start of the first to the end of the second year in China are negligible or negative in math and physics. By contrast, skill gain estimates are positive and significant in India and Russia for math and in India for physics.

Do Students at Elite Universities Learn Better?

In the past two decades, policy makers in China, India, and Russia have actively pushed elite institutions to become world-class, which has led to a growing differentiation of higher education systems into elite and nonelite institutions. Elite institutions are characterized by higher levels of investment and prestige. They are generally thought to be of higher quality compared with nonelite institutions, which train the vast majority of university students in most countries.

We observe large differences in critical thinking and academic skill gains among students in elite and nonelite institutions, both within and across countries. For example, students in elite institutions in China have higher levels of critical thinking and math and physics skills than students in elite institutions in India and Russia. Notably, freshmen in nonelite institutions in China exhibit substantially higher levels of critical thinking skills compared with freshmen in elite institutions in India (this gap closes by year 4), and higher levels of math and physics skills compared with freshmen in elite institutions in Russia (the gap in math but not physics skills closes by year 2). Overall, elite universities in all three countries admit students with higher skill levels but do not contribute to heightening their skill gains, when compared to nonelite universities.

Closing Gender Gaps in Skill Acquisition

Finally, there are small differences in skill levels and gains by gender. At the start of their university studies, female students exhibit similar levels of critical thinking skills to male students in China, India, and Russia. Female freshmen in China and India have slightly lower math and physics scores compared with male freshmen. Female freshmen in Russia score at the same level as male freshmen in math and physics.

During the first two years of university, female and male students in all three countries make similar gains in critical thinking. By the end of their studies, female students in India and Russia have similar scores in critical thinking while female students in China score lower compared with male students. Female students in China, India, and Russia make higher gains in math compared with male students, closing the gender gap in China and India and outperforming male students in Russia by the end of their second year.

Universities seem to be closing gender gaps in math (in China, India, and Russia) and critical thinking (in India and Russia), which can have implications for increasing the equal representation of women in the STEM workforce. However, the initial gender gaps in math and physics at the start of university indicate that countries need to invest more in improving student achievement in math and science at the secondary level, or that STEM programs in these countries have room to attract higher achieving female students.

A Call to Improve the Quality of STEM Education Worldwide

To summarize, the study provides important insights into the global competitiveness of STEM university students across nations and institutional types. The large variation in skill gains across countries and institutions underscores the need for more research on skill development in university. The fact that students in different countries and types of institutions experience significant variations in skill development indicates that higher education systems, including elite and nonelite institutions, often do not prepare students for skill-based technological change. In their efforts to improve STEM education, universities and policy makers should look beyond mere increases in the number of STEM graduates and consider the quality of their learning outcomes. ◢

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Evaluating the Student Experience

Camille Kandiko Howson

Student surveys are part of the evidence-based higher education movement. Students' feedback on their experience emerged from Western democratic improvement drives, with end-of-module evaluations a key part of quality enhancement. This facilitates a dialogue between students and teachers—albeit one that leads to improvements for the next cohort of students. This practice soon became assimilated into internal and external quality assurance processes.

Origins of Student Evaluations of Teaching

In the 1990s, researchers began to develop surveys about teaching to counteract the focus of research-based performance indicators, which feed into domestic funding schemes and global rankings. In many countries with nationally standardized surveys, such as the United Kingdom and Australia, they also function as a transparency tool for governments and allow for benchmarking across the sector.

Abstract

Student surveys are ubiquitous. Originating with the democratic improvement ethos in Western higher education, student evaluations became a bedrock of quality assurance. Ratings of teaching feed into the neoliberal model of higher education, providing a transparency tool for governments, fuelling competition, and driving marketing campaigns. Some argue for the power of the student voice, others critique bias in ratings. But a future based on students' actions—through data analytics and artificial intelligence—may speak louder than words.

More recently, student surveys emerged as a key data source in the marketplace of students-as-consumers.

More recently, student surveys emerged as a key data source in the marketplace of students-as-consumers. They fuel competition across institutions and feature in marketing and public relations campaigns. Websites such as ratemyprofessors.com operate outside of institutions' control but may influence teachers' probation and promotion prospects.

Where Did They Come from?

The Australian Course Experience Questionnaire (CEQ), developed by Paul Ramsden in the 1980s, was one of the first large-scale student surveys to emerge. It had an explicit basis in consumer (student) satisfaction, exploring teaching, goals and standards, workload, assessment, and independence.

In the 1990s in the United States, in response to research and reputation-based rankings and subsequent discussions of quality, researchers developed surveys on student engagement. These focused on what students did in their time in higher education and how institutions created an environment to support student success. The National Survey of Student Engagement (NSSE) was designed to provide institutions with actionable data, focusing on academic challenge; collaboration; staff–student interaction; and campus environment.

A decade later, the United Kingdom took a more consumerist approach, launching the National Student Survey (NSS) in 2005, with the aim to inform prospective students' choices about higher education courses. The survey soon expanded to act as a public accountability tool, as well as a vehicle for institutional enhancement. Somewhat ironically, the surveys were initially boycotted by many student unions.

Where Did They Go?

As to be expected, each of the large-scale student surveys informed the development of the others, with UK-based research providing the bedrock for the CEQ, which also strongly influenced NSSE. The nationally standardized surveys in Australia, the United Kingdom, and the United States contrast with individualized, institutionally based surveys used more widely across the world. Engagement surveys, which focus on institutional enhancement, student self-formation, and development of societies' human capital and engaged citizenry, have had widespread adoption across the globe, being duplicated in Australia, Canada, China, Ireland, New Zealand, and South Africa, with similar initiatives in Japan, South Korea, and Mexico. Part of the staying power of engagement surveys is that they are not widely used in rankings.

Globalization has influenced the spread of student surveys. After using the CEQ, Australia adopted an engagement approach for a while, then moved to the current Student Experience Survey in 2015, which takes a more marketized approach than the CEQ. In the United Kingdom, the NSS has been regularly reviewed (with the first three reviews led by Paul Ramsden). It is under review again for being overly bureaucratic and not delivering outcomes aligned to government priorities around value for money and employability outcomes.

Due to the large expense of developing robust surveys and varying national higher education systems and priorities, there is little comparative research on the topic. There is more focus on within-country comparisons, across institutions, disciplines, and subgroups of students. Student surveys have become embedded globally as part of quality assurance, accreditation, and regulatory systems. In some countries, they feed into performance regimes and value-added discussions. Interestingly, in the United Kingdom the weighting of student surveys was downgraded in the national Teaching Excellence Framework, which prioritized employment outcomes instead.

Challenges and Alternatives

There is big business in capturing student data. International rankings have made efforts to include measures of teaching and learning to counteract criticisms of focus on research and reputation, but have found them hard to develop and to compare internationally. A collaboration for the US market, the *Wall Street Journal/Times Higher Education* College Rankings faced challenges getting students to complete surveys to have sufficient data to rank institutions. Similarly, the OECD Assessment of Higher Education

Learning Outcomes (AHELO) program failed to get international consensus on outputs (see article by Loukkola and Peterbauer in *International Higher Education*, issue 104).

Critiques of student surveys are as broad as surveys, including reliability, robustness of measures, and response rates. The merging of many student opinions into a single "voice" homogenizes students and feeds into an instrumental and reductive view of the student voice. There is also a plethora of research on bias across gender and other characteristics in student ratings and feedback, which is particularly problematic when data is used for probation and promotion.

The challenges of student surveys lead to regular calls for alternative approaches to gathering data on quality in higher education. This includes more qualitative and localized initiatives, working with students as partners, and other collaborative approaches. As student feedback shifts from being formative feedback to their teachers to a summative rating of their experience, there is a danger that the market of student opinion defines effective teaching and quality in higher education.

More holistically, there is a need for greater triangulation of research, to address concerns such as links between student ratings and grade inflation. A greater use of learning analytics has been long called for but is still not standardized within institutions, better yet across countries. The shift to online delivery due to the pandemic has highlighted how much data is available on students and how they engage with their learning. There is a danger that students' actions may drown out their voices. ◣

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Australian Higher Education: The Perfect Storm?

William Locke

Australia is known for its extreme weather events and climate-related catastrophes, from long periods of drought to raging bush fires, cyclones, and flooding. Like the rest of the world, it has been coping with the COVID-19 pandemic but, along with New Zealand, it has largely been able to secure its international borders and limit the importation of the virus from elsewhere. This has, however, prevented a significant number of international students from entering the country to commence or continue their studies at Australian universities, leading to a substantial reduction in income for some of these institutions and precipitating a financial crisis that few have experienced in their recent history. In combination with an apparently unsympathetic federal government and very cautious state governments, this appears to have created a "perfect storm" for Australian universities and a real disruption to their operations. Some have the resources and expertise to adopt a longer-term, strategic response to this crisis, while others appear to be struggling to survive. However, several leading universities have posted large losses in 2020 and a major rating agency has revised its outlook to negative, due the sector's heavy reliance on international student enrollments.

Abstract

The heavy reliance of Australian universities on international student tuition has been exposed by the pandemic and, in particular, the federal government's closure of international borders. This has prevented a significant number of students from entering the country to commence or continue their studies at Australian universities, leading to a reduction in income and precipitating a financial crisis. Some universities have adopted a longer-term, strategic response to this crisis, while others are struggling to survive.

Dependence on International Students

As a highly marketized higher education system, along with the US and UK systems, Australian universities have energetically expanded international student enrollments since 2002 and particularly during the last few years, since domestic student numbers were capped in 2017. The number of overseas higher education students grew from 125,000 in 2002 to 440,000 in 2019, and by 45 percent in the last three years of this period, with

the vast majority coming from China (38.4 percent of international students in Australia in 2019) and India (19 percent). This represented about 8 percent of the total international student population worldwide, in third place just behind the United Kingdom. The largest category by far were master's degree coursework students, studying full-time and on campus, in management & commerce and science & technology disciplines, with information technology, engineering, and related technologies most vulnerable to the sudden reduction in numbers. Universities with the highest proportion of international students included several of the Group of Eight research-intensive universities, with the University of Sydney (38.2 percent of all students) and the smaller Australian National University (37 percent) at the top of the list.

Since Australia closed its borders to travellers from China in February 2020, and to all international travellers except residents of Australia in March of that year, there has been a 23 percent drop in international commencements, including a fall of more than 80 percent among new students from India. While continuing students "soften the blow," once they complete their studies, whether online or in-country, the reduction in replacements will begin to bite, especially if restrictions on international travel persist into 2022. At the time of writing, there are more than 100,000 international student visa holders stranded outside Australia trying to complete their courses online. According to Australian diplomats based in Beijing, many Chinese students with Australian visas are considering switching to countries where they can study in person. The slow roll-out of the vaccination program in Australia, especially compared with its prime competitors in international higher education, the United States and the United Kingdom, does not bode well.

Broad Impact
In 2019, educational services were Australia's third largest export, and overseas student fees accounted for AUD 10 billion (or 27 percent) of universities' income. It has been estimated that without successful strategies to mitigate the impacts, the total losses from this revenue by 2024 could be in the range of AUD 11 billion to AUD 18 billion. The expected growth in domestic demand in the next few years will not be sufficient to offset predicted losses, because of fewer on-campus enrollments and government policy that will have the effect of reducing domestic fee income. The nature of the risks to individual universities depends on their relative reliance on international fee revenue, the underlying financial resilience of the institution, and the strategic decisions now being made. In addition to reduced fee income, universities have faced losses on their investments due to the impact of the pandemic on international financial markets, and additional expenditure caused by the substantial shift to online and hybrid forms of teaching and learning, together with student financial and welfare support.

In 2018, Australian universities spent AUD 12 billion on research (37 percent of total expenditure), of which approximately AUD 6 billion was from institutions' own discretionary income rather than external sources. International student fees contributed around 50 percent of this discretionary income and so, with the reduction in this income, universities' research expenditure is estimated to decrease by between AUD 6 billion and AUD 7 billion between 2020 and 2024. This could lead to a reduction of between 5,000 and 6,000 research students and staff, which is equivalent to 11 percent of the current research workforce. A one-off federal government injection of AUD 1 billion from the Research Support Program in 2020 is unlikely to have much of a mitigating effect.

Overall, it is estimated that universities have already shed around 17,300 staff (13 percent of 130,000) as a result of the pandemic, with casual and fixed-term academics and junior professional staff most vulnerable to redundancy. This has almost certainly resulted in increased workloads for all remaining academics and professionals, especially those involved in teaching. As well as accelerating the declining proportion of academics who are on teaching and research contracts, many of these may be becoming *de facto* "teaching-only," or at least "teaching-intensive."

Before the pandemic, international education contributed over AUD 40 billion annually to the Australian economy, of which 57 percent, or AUD 22.8 billion, was in the form of goods and services spent in the wider economy, for example in retail and on accommodation. It has been estimated that if borders remained closed, by mid-2021, there

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would be a 50 percent reduction in the number of international student visa holders inside Australia. This would equate to an annual reduction of approximately AUD 11 billion in spending in the broader economy, which makes the federal government's unsympathetic attitude to the university sector difficult to comprehend.

A Hostile Government and Policy Environment
When borders were first closed, the Australian prime minister, Scott Morrison, suggested that international students who were facing economic hardship because of the pandemic should "just go home." This was the first of a series of unsympathetic, unhelpful, or even hostile moves toward higher education by the federal government during the pandemic. First, universities were excluded from the "Job Keeper" scheme, a subsidy for businesses significantly affected by the pandemic—thus exacerbating job losses. Second, the introduction of a "Job-ready Graduates" policy had the effect of reducing higher education institutions' income from teaching domestic students. Third, a number of initiatives have been designed to challenge universities' autonomy in collaborating internationally, including the Foreign Relations Act 2020 and an Extension of the Security of Critical Infrastructure Act to the higher education and research sectors. Higher education is also at risk of being caught up in the trade war between Australia and China, which has already resulted in the introduction of tariffs on some goods and the suspension of particular exports. Perhaps educational services will be next? ◢

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The Tragedy of Myanmar Higher Education Under the Coup

Marie Lall

On February 1, 2021, the Myanmar military (*Tatmadaw*) conducted a coup timed so as to stop the newly elected parliamentarians from taking their seats. This article gives a brief overview of how this has affected higher education and its reform.

Myanmar Political Realities
Between 1962 and 2010, Myanmar was under military rule. A pathway to change opened around 2005, with a new military-drafted constitution in 2008 and elections in 2010. The first civilianized government under President Thein Sein started a comprehensive reform process with three priorities: national reconciliation with the National League for Democracy (NLD) lead by *Daw* Aung San Suu Kyi (DASSK); ethnic peace with 20+ ethnic armed groups; and economic reforms. Education reforms were added shortly after. While democracy was not on offer, a new participatory system ensured that in 2015, the NLD won a majority of seats—as they did again in November 2020. The military constitution maintains control of three key ministries as well as 25 percent of all seats in all parliaments for the *Tatmadaw*. The coup surprised most, as it was widely believed that even in the midst of reforms, the *Tatmadaw* retained its key role at the heart of government.

Higher Education Reforms
The reforms started with a comprehensive education sector review in 2011–2012. The highly centralized higher education system, in which everything from academic appointments to curricular content was decided by the ministry of education (MoE), opened up gradually. This included memorandums of understanding with foreign universities for

Abstract
Myanmar's military coup has interrupted a decade of reforms, including important changes to higher education. Students and staff are at the forefront of anti-coup protests, bearing the brunt of the violence. This article gives a brief overview on how the higher education sector has been affected, arguing that the Tatmadaw (the Myanmar military) has no qualms about damaging higher education, seeing the revolt of students and staff as treason to the country.

joint research and teaching, writing university charters for institutions that were to be granted gradual autonomy, engaging with ASEAN's qualifications framework, including a student exchange program, and setting up a rectors' committee. The new National Institute for Higher Education and Development had senior university staff trained by the University College London Institute of Education on issues ranging from how to connect assessment to new curricular development based on academic research, to setting up an ethics board. Undergraduates who had been kept away from Yangon's urban campuses after the student protests of the 1980s and 1990s were allowed to return.

Higher Education's Reaction to the Coup
Anti-coup protests started early in February 2021, led initially by doctors, nurses, and students from government hospitals, which also include Myanmar's medical schools. University staff and students soon followed. The protests coalesced around different groups, but the higher education sector is mainly involved in the Civil Disobedience Movement (CDM), with staff walking off the job and institutions shutting. Some key CDM staff were punished by demotion or by being sent to more remote universities. The MoE issued a circular stating that promotions would be denied to those taking part in CDM. Staff were asked to state whether they supported the protests and to identify those who do. Because higher education staff are government employees, protesting academics were expulsed from campus housing. In urban areas, the newly arrived *Tatmadaw* divisions that are usually stationed in ethnic conflict areas took over campuses as well as government hospitals to accommodate their soldiers. The government announced that postgraduate and final year undergraduate teaching was to resume in May, but given that most staff refuse to work and universities are now army barracks, it is unclear how this will work. Any other undergraduate teaching has been suspended, mirroring the 1980s and 1990s, when universities were closed for over a decade and a half and a whole generation of young people missed out on higher education.

> *Students have been at the forefront of the revolt.*

Students have been at the forefront of the revolt—although across the country many other groups joined the demonstrations, including many government teachers who present themselves in their uniforms with the MoE's green flag. At first, protests were peaceful, resembling festivals with fancy dress and humorous posters, some of which insulting the *Tatmadaw*. Police reaction to increasing crowds escalated from water cannons to sound grenades and rubber bullets. With the arrival of light infantry divisions, the nature of protests changed, as soldiers fired live bullets on unarmed crowds and snipers shot individuals in the head. At the time of writing, a conservative estimate of the number of protesters killed exceeds 700. Volunteer medical teams are also targeted by soldiers when they try to help the wounded, and many doctors have gone into hiding. Most hospitals and their medical schools remain closed. Young people have continued to protest, building roadblocks with tyres, which are burned down by advancing troops as the conflict escalates.

The State Administration Council, governed by Chief of Staff General Min Aung Hlaing, has increased repression of both the CDM and protesters. This includes lists of wanted people (including academic staff and student leaders) read out on television every night at 8 pm, and nightly arrests. At the time of writing, there have been over 4,000 people arrested (with around 3,500 still in custody), including Australian academic Dr Sean Turnell, who was DASSK's economic advisor. There have been reports of torture, and families are sometimes called to retrieve the bodies of those taken away the previous night. In a number of cases, families were asked to pay for the bodies of their relatives. Student leaders are in hiding, and some young people have started to flee to border areas where they hope to receive combat training from ethnic armed organizations. But the *Tatmadaw* is escalating the conflict in ethnic areas as well, and has carried out the first aerial bombings in Karen and Kachin States in two decades. Mobile and wireless internet have been cut to make communication between protesters harder and all nongovernment media has been officially shut down, as journalists are risking their lives to report.

pandemic. Also, 84 percent of those responded that they needed to revise their internationalization strategies to prepare for the post-COVID-19 era, a challenging task.

Under the unprecedented situation caused by COVID-19, most of these universities started utilizing ICT to continue international exchanges and learning virtually. One of the most common practices is encouraging students to participate in short-term online programs, typically lasting a few weeks, offered by universities abroad. Before the pandemic, participants of short-term (up to one month) study abroad programs represented more than 60 percent of the Japanese university students who went abroad for learning. During the pandemic, a similar trend has been identified. Most of these short-term online programs have been developed entirely by universities overseas. In contrast, some other programs have been set up in collaboration with Japanese universities in order to cater to the specific needs of Japanese students or to incorporate collaborative learning between the students of Japanese and overseas universities. Many of those short-term programs focus on learning English or other foreign languages.

In addition, funded universities developed one or two semester-long virtual mobility programs. These are alternatives to mutual student exchange programs with partner universities abroad. In virtual mobility programs, Japanese exchange students do not travel abroad but still take online courses offered by partner universities overseas. Students of partner universities do the same, taking online courses offered by Japanese universities. Some universities have developed an online platform system for virtual student mobility in collaboration with partner universities abroad. One example is the "Course Jukebox" platform of the University of Tsukuba, which, as of April 2021, offers 2,805 courses to the students of eight partner universities overseas. In addition, international consortiums of universities also offer virtual mobility programs. Quite a few funded universities are members of those consortiums (e.g., the Association of Pacific Rim Universities, APRU, and University Mobility in Asia and the Pacific, UMAP), and offer their online courses to the consortium, encouraging their students to enroll in online courses offered by other consortium members.

While many universities began to engage in ICT as an emergency response to the pandemic, IUEP universities selected in 2018 had been practicing "Collaborative Online International Learning" (COIL) with US universities well before the pandemic. After the outbreak of COVID-19, these COIL initiatives drew attention as a way to promote sustainable and inclusive international learning without mobility. Kansai University's Institute for Innovative Global Education (IIGE) plays a leading role in disseminating the COIL method, with its resources and training programs, among universities in Japan and other countries via the IIGE Global Network.

Prospects and Challenges

According to the MEXT survey, 90 percent of the funded universities answered that they would in the future develop blended/hybrid international exchange programs, combining learning through physical mobility with learning via the internet. Except for the COIL initiative, current virtual exchanges and mobility are largely regarded as an emergency response to the current crisis and as alternative solutions to international learning through physical mobility. International educators are concerned that online international learning methods are likely to fade away when physical student mobility resumes on a larger scale. However, it is crucial for universities to leverage newly developed online learning tools even after the COVID-19 pandemic, to offer inclusive international education to the larger student pool who are unable to study abroad. Now is the time to reflect on the fact that international education policy and practice have excessively relied on physical cross-border mobility.

One of the challenges for Japanese universities in conducting online teaching and learning programs is to ensure and enhance quality. Considering the short history of online learning and distance education in Japan, both capacity building and professional development are critical to this end. Also, assessing the learning outcomes of students who participated in virtual exchange and mobility programs is indispensable, in order to determine the benefits and limitations of such programs and further improve them. These efforts can help universities envision an effective and inclusive approach to international teaching and learning in the post-COVID-19 era. Responding to the new normal requires that universities develop a new modality of internationalization, which will have a significant impact on the reputation and attractiveness of higher education as a whole. ◢

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India: Too Many IITs, Unrealistic Expectations

Philip G. Altbach and Eldho Mathews

Without question, the Indian Institutes of Technology, or IITs, are the crown jewels of Indian higher education. They are world-renowned for the quality of their graduates, for their academic programs in a range of fields in technology and engineering—and in the past decade, for their research and innovation through research parks as well. They are among the few Indian higher education institutions that do reasonably well in global rankings. However, for the past decade or so, and according to current plans, the IIT "system" has expanded beyond its capacity to maintain its high standards and is in danger of sinking into mediocrity. The recent decision of the University Grants Commission to permit select IITs under the "Institutions of Eminence" category to set up campuses abroad could further weaken these already stretched institutions. It is time to rethink the changing role and mandate of IITs in order to ensure that quality and focus are maintained—and the needs of India prioritized, with a twenty-first century twist.

What the IITs Are, And Are Not
The original five IITs were established in the 1950s and early 1960s. Four had a foreign collaborator: IIT Bombay (Soviet Union), IIT Madras (Germany), IIT Kanpur (United States), and IIT Delhi (United Kingdom). Currently, there are 23 IITs. After setting up IIT Delhi in 1961, it took another 34 years to establish the sixth IIT in Guwahati in 1994. Since then, 17 more IITs have been established, including several that resulted from upgrading existing institutions.

Funded generously by the central government, IITs focused exclusively on technology and engineering. They later added the humanities and social sciences—but these programs were modest until the 2020 National Education Policy emphasized that IITs should focus more on "holistic and multidisciplinary education."

The IITs are small institutions, with average student enrollments of around 10,000 in the five older IITs. Some of the newer ones remain quite small, with fewer than 400 students. The older IITs have around 1,000 faculty members, while some of the new ones, such as those in Palakkad and Jammu, employ about 100. Most suffer from a severe shortage of professors. For example, IIT Dhanbad is approved to hire 781 instructors, but, as of January 2021, only 301 positions had been filled.

Offerings, Students, and Faculty
IITs are not universities; they have neither the range of disciplines nor the size that characterize universities worldwide. They started as undergraduate institutions; they gradually added small postgraduate programs, but some are now adding significant postgraduate offerings. IIT–Bombay's student enrollment, for example, was 58 percent postgraduate during 2019–2020. IITs were, and are, self-conscious elite institutions aiming at the highest international academic standards, a tradition that, in our view, is important but increasingly difficult to maintain.

It is not surprising that IIT graduates are so successful: The schools may be the most selective institutions in the world. Around 700,000 students sit for the national engineering entrance examination for the IITs and several other elite institutions each year and a vast majority of them target the 16,000-plus seats available in the 23 IITs. According to information from the minister of human resource development, in February 2020, dropout rates at the IITs were infinitesimal and declining, from 2.25 percent in 2015–2016 to 0.68 percent in 2019–2020.

Similarly, IITs have traditionally attracted high quality faculty. Most have doctorates from the most respected Western universities. Top quality professors have been attracted

Abstract
The Indian Institutes of Technology (IITs), now 23 in number, are the "jewels in the crown" of Indian higher education in terms of quality, international recognition, and producing top graduates. But, in the past several decades, they have overexpanded, and some of them no longer offer top quality education. This article discusses the current condition of IITs and argues that their number should be reduced.

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It is not surprising that IIT graduates are so successful: The schools may be the most selective institutions in the world.

to the IITs because of the quality of the students, the chance to work with the best academic minds in India, and a commitment to India's development. While salaries do not compare well on the international market, working and living conditions on the older IIT campuses are comfortable.

In recent years, however, things have begun to change. IITs have not been able to attract a sufficient number of young faculty to fill vacancies resulting from retirements. The emerging IT and related industries in India are offering much more attractive salaries and exciting work opportunities, and many have also been lured to universities and industries in other countries.

At the same time, the government dramatically expanded the number of IITs, spreading them around the country. Most of the new IITs are located in smaller towns such as Mandi (Himachal Pradesh), Palakkad (Kerala), Dharwad (Karnataka), and others. While it is important to provide educational opportunities outside the major metropolitan areas, top institutions are seldom located far away from urban amenities. There are no doubt a sufficient number of excellent students to attend all IITs, but there are not now, nor will there be in the future, enough top-quality faculty to staff all of the new institutes, especially those in mofussil locations. Facilities and infrastructure are unlikely to be world class. It is, thus, inevitable that quality will decline and that the IIT brand will be diluted. This would be very unfortunate for India, since IITs are, without doubt, India's most recognizable and respected academic institutions.

Another area of concern is the lack of correlation between local needs and IITs. Most of the IITs and other prominent "Institutes of National Importance" are "academic enclaves" with little connection with their regions. Only a few state governments are effectively utilizing the presence of IITs in the local environment through knowledge-sharing networks involving universities, colleges and schools, and local industries and firms. Similarly, there are few community outreach programs. Such an approach could prevent disruption, such as that occurring in Goa, where local groups are resisting locating a new IIT in their region.

What Needs to Be Done

While excellent engineering/STEM (science, technology, engineering, and mathematics) institutions are needed, all do not have to be IITs. Perhaps 10 to 12 "real" IITs located near major cities are practical for India. Some of the newly established institutes can be renamed and provided with sufficient resources to produce high-quality graduates and good research. A more limited IIT system needs to be funded at world-class levels and staffed by world-class faculty, perhaps with some recruited from top universities internationally. A recent decision to liberalize recruitment rules to attract more foreign faculty is a step in the right direction.

Further, IITs need to pay attention to internationalization beyond sending their brightest graduates abroad and recruiting Indians with foreign PhDs. Starting overseas branches is a bad idea, but in-depth collaboration with the best global universities and hiring foreign faculty, perhaps as visiting scholars, would yield excellent results and further build their international brand. IIT Bombay–Monash Research Academy and University of Queensland–IIT Delhi Academy of Research (UQIDAR) are promising examples. IITs need robust policies to attract international students. And, of course, adequate and sustained funding is mandatory—both from government and from the philanthropy of tremendously successful IIT graduates at home and abroad. It would be tragic for India's "jewel in the academic crown" to be diminished. And overexpansion will inevitably mean exactly that.

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