Prefering International Development Professionals for the Digital Age

By Romina Bandura

THE ISSUE

- Professionals in the field of international development need to acquire skills and knowledge to successfully embrace the opportunities that digitalization brings and employ these skills to address global challenges. At the same time, they need to discern and manage the threats associated with technology, including cyberattacks, data privacy breaches, bias and discrimination, the rise in disinformation and misinformation, and the growing trend of digital authoritarianism worldwide.

- Graduate programs in international development, public policy, and other related fields play a huge role in training future professionals, and therefore, should equip students with hard, soft, and policy skills to be responsible citizens and become “work ready.” Currently, budget constraints, faculty composition, and the speed at which digital technologies change make it difficult for graduate programs to integrate digital courses and training into their curricula.

- Universities can overcome some of these barriers by engaging their leadership, structuring strong partnerships with companies and development organizations, and pursuing interdisciplinary approaches, among other strategies.

INTRODUCTION

Rapid advances in technology are transforming every industry in the global economy. In particular, the disruption created by the Covid-19 pandemic pushed governments, companies, and citizens to adopt a wide range of digital solutions. Many activities—including government services, work, schooling, and retail—shifted online. The pandemic also revealed that workers and regular citizens were not equipped with the right skills to operate in the digital age. A study conducted by the European Commission in 2021 revealed that only 54 percent of Europeans possess basic digital skills.¹ In 2022, Salesforce’s new Digital Skills Index found that three out of four workers globally did not feel ready to operate in a digital-first world.² Most worrisome is the fact that the same study revealed only 28 percent of respondents were actively engaged in training programs or pursuing learning opportunities to acquire digital skills.

Digital skills are critical for citizens and workers to do their jobs, seize new tech opportunities, and mitigate the risks that technology-based tools and services can introduce. Professionals in the field of international development are not immune to these trends. They need to acquire skills and knowledge to successfully
embrace the opportunities that digitalization brings and employ these skills to address global challenges. But they need to understand technology is a tool that we can apply to solve social and development problems—a human-centered design approach. At the same time, professionals should discern and manage the threats associated with technology, including cyberattacks, data privacy breaches, bias and discrimination, the rise in disinformation and misinformation, and the growing trend of digital authoritarianism worldwide.

In this regard, educational institutions play a vital role in equipping students with the right knowledge and skills to be responsible citizens and graduate “work ready.” In particular, graduate programs in international development, public policy, and related fields are responsible for training the next generation of development professionals. How are these institutions preparing their students for the digital age? To better understand how universities are approaching this issue, CSIS partnered with the United States Agency for International Development (USAID)’s Innovation, Technology, and Research Hub and the DAI Digital Frontiers Project on a yearlong research project to analyze the main trends, challenges, and solutions that these institutions are experiencing. As part of the research methodology, CSIS collected information from the websites of 70 graduate schools that offer programs in international development, public policy, and related fields (35 inside the United States and 35 abroad); held a series of focused interviews with 16 universities; and organized a half-day seminar with 50 professors, recent graduates, university administrators, and development practitioners. In the end, this project identified a number of foundational skills that students need for the digital age, as well as concrete actions these institutions can pursue to better prepare their students for the future. These findings are summarized in a CSIS commentary, A Call to Action: Igniting the Digital Revolution in International Development Studies.

**HOW DO UNIVERSITIES APPROACH DIGITAL TRANSFORMATION?**

This project found that there is wide variation among graduate schools on how they approach and teach digital-related skills and topics. Of all the institutions that were researched, universities in the United States have the greatest rate of digital or technology-related courses: 60 percent of the universities surveyed had at least one course dedicated to digital skills or policy. However, these courses are less common in minority-serving institutions. Furthermore, courses that do focus on digital tools or technology are not usually part of the core curriculum, meaning that if a student wants to learn more about digitalization, they will have to take an elective course.

Additionally, many universities tend to focus their coursework on hard skills (i.e., technical skills), such as coding, statistics, quantitative analysis, cybersecurity, and data analytics. Although these are critical foundational skills, programs rarely approach the policy, governance, and ethical issues related to digital transformation. For example, topics such as the values embedded within digital transformation, technology’s role in the discussion of great power competition with the People’s Republic of China (PRC) and Russia, and the use of technology as a new mode of colonization oftentimes are missing. In general, the emphasis on hard skills shifts the focus away from the governance and politics of digitalization and other transnational issues, such as digital ID and data privacy.

Furthermore, a core component that is often missing from graduate school curricula is the subject of digital ethics. Collecting and using data and employing innovative technologies—such as artificial intelligence (AI), machine learning, biometrics, and blockchain—need to be pursued in a responsible way. Just like in other services, users place high value on privacy, transparency, and fairness. Ethics in the use of digital technology include issues such as how fair and transparent algorithms are, what data is being gathered from users and stored (with or without their explicit consent), and whether there are biases in the data collection and algorithms that could result in unfair outcomes. Governments, businesses, and individuals should act responsibly and promote an ethical use of digital technology.

This is especially important in developing countries, given their lower levels of digital literacy, governance structures, and cybersecurity tools, to tackle these ethical issues. Professors and students also shared this
sentiment as they highlighted the need for more courses that discuss how developing countries are approaching digital transformation. Specifically, this relates to the distinct trajectories that countries are following and how their digital regimes differ from advanced economies. Within this context, the approaches that India, Togo, Estonia, and Ukraine pursued were discussed as salient country case studies.

“We cannot be effective at meeting our humanitarian and development objectives if we are not pursuing a responsible and ethical approach in the use of digital technologies.”

— Christopher Burns
Chief Digital Development Officer, USAID

Moreover, we found that many graduate-level programs have limited curriculum crossover with other disciplines. This siloed approach prevents students who are specializing in politics or economics from gaining exposure to digital governance or technological innovation topics. Professors and students echoed this concern, highlighting a lack in interdisciplinary courses; such courses could examine how digitalization relates to humanitarian issues, the environment, health, finance, and so on.

Finally, CSIS uncovered that not all universities ensure their programs and curricula include a variety of perspectives and stakeholders (e.g., students, faculty, and employers). The lack of participation in the design phase results in syllabi that are disconnected with the needs and interests of students and companies. In the end, students graduate without the adequate skills and knowledge to address digital transformation in the context of international development.

THE SKILLSET FOR THE DIGITAL AGE

Although digitalization is not yet standard in public policy and international development programs, there are schools in the United States that are pursuing innovative approaches to incorporate more digital programming (see Box 1). Some universities offer digital or technology concentrations, allowing students to specialize in these topics within their public policy or international development programs. Other institutions offer capstone programs, where students work with external partners to solve real-world problems related to digital challenges. They combine theories of technology and scientific innovation with applications to concrete development challenges. These programs also ensure that cohorts are multidisciplinary—that is, that the students have different disciplinary backgrounds and bring a wide range of professional experience. Moreover, during the graduate programs, students are exposed to a variety of topics and learn different skills.

BOX 1
EXAMPLES OF INNOVATIVE APPROACHES IN THE UNITED STATES

- The Worcester Polytechnic Institute (WPI) offers a multidisciplinary program—the master in science and technology for innovation in global development—that combines technological and scientific innovation with cross-cultural design thinking to address development challenges. Students who come from different disciplines are driven to experiment and conduct projects in developing regions.

- Georgetown’s McCourt School of Public Policy offers a master in international development policy that is STEM-eligible (i.e., it qualifies international students to apply to work in the United States for three years following graduation) and provides technical knowledge that students can use to design and implement programs in developing countries.

- Within its master’s programs, Columbia University’s School of International and Public Affairs (SIPA) offers a specialization in data analytics and quantitative analysis and one in technology, media, and communications; both are also STEM-eligible.
The University of California, Berkeley’s master of development practice features capstone workshops in which students can work with external partners to learn real-world problem-solving skills related to digital development.

Catholic University’s master of arts programs in integral economic development are looking to modernize their baseline programming and integrate data analytics and related skills into their core curriculum design.

The College of William and Mary’s Center for Geospatial Analysis uses an integrated approach to encourage more engagement with geographic information system (GIS) tools. Specifically, the Center for Geospatial Analysis seeks to integrate the latest geospatial technologies in student and faculty research, incorporate GIS mapping projects into more of their courses, create events to provide students with research and career opportunities in the GIS field, and provide a certificate program for postbaccalaureate studies or professional development trainings.

The University of Washington provides GIS certificates for students and professionals. During the certificate program, attendees learn in depth about GIS and its importance in society and receive a hands-on experience using the different GIS tools and data applications.

But what exactly is the ideal skillset for the digital age and what should these graduate programs be teaching? How can universities better equip students to address the development challenges of tomorrow? Although there is no clear consensus on these issues, this project was able to identify a set of relevant skills for the digital age, grouped into hard, soft, and policy skills (see Figure 1).

**HARD SKILLS**

Hard skills are technical abilities that allow workers to perform specific tasks of their job and sector like budgeting, research, and teaching. Usually, these technical skills are acquired in educational institutions and through employer training programs. For international development professionals, the hard skills they need to acquire include digital literacy, risk management, monitoring and evaluation (M&E), and research.

Within digital skills, there are different degrees of complexity, classified into basic, intermediate, and advanced. Professionals in the public policy and development fields need to know how to use digital technologies safely and appropriately. There are basic digital skills that comprise the use of hardware (e.g., typing or operating touch screen technology) and software (e.g., using the internet, emailing, word processing, organizing files on laptops, and managing privacy settings on mobile phones). With intermediate digital skills, a professional can evaluate technology or create content, such as with desktop publishing, digital graphic design, and digital marketing. Finally, advanced digital skills include computer programming and network management; they relate to AI, big data, natural language processing, cybersecurity, the internet of things, software development, and digital entrepreneurship.

Within advanced digital skills, programming and coding allow professionals to create digital tools—such as apps, software, and web platforms—that can be used to address development challenges. Being proficient in GIS helps development professionals to better target specific interventions. This technology connects a problem or issue to a specific geographic location, allowing the researcher to target specific areas.

**Source:** University websites

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**Figure 1: International Development and the Necessary Skills for the Digital Age**

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<th>Hard</th>
<th>Soft</th>
<th>Policy</th>
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<td>Digital Literacy</td>
<td>Creativity</td>
<td>The Digital Ecosystem and its Governance</td>
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<td>Monitoring and Evaluation</td>
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example, in the health sector, policymakers can use GIS technology to pinpoint populations that are at a higher risk for Covid-19 or other diseases, locate communities lacking access to health centers, and identify relevant health infrastructure. Once these issues are identified, professionals can design a more targeted action plan, such as building new vaccination stations and using medical drones to provide vaccines to inaccessible communities. Understanding AI, machine learning, and natural language processing can also help professionals study media integrity, assess trends in government funding, and make better predictions and conclusions based on collected data.

In addition to digital literacy, strong M&E skills are also relevant competencies that can be combined with innovative technology. M&E techniques allow policy implementers to ensure that the project is on track, that the set timeline of deliverables is met, and that resources are being used efficiently. Knowing how to apply software tools (e.g., Excel and relational databases) and programming languages (e.g., Python) and how to implement a specific evaluation technique (e.g., qualitative, quantitative, or mixed methods including cost-benefit analysis, randomized control trials, and nonexperimental methods) benefits development professionals. Technological tools such as GIS, satellite imagery, and blockchain, together with crowdsourcing and mobile applications, can help M&E professionals improve their data collection methods. Additionally, software (e.g., SPSS, SAS, STATA, NVivo, R), in combination with sophisticated apps (e.g., Open Data Kit), can help evaluators make better assessments of different policy interventions.

Alongside training on M&E, risk analysis and management are important technical skillsets that international development and public policy students should learn. The environments in which development professionals work and the communities in which they serve are more prone to high risks due to weak infrastructure, instability and conflict, high disease burden, poor health systems, food insecurity, and lack of access to internet services. Risk analysis provides tools and processes to help development professionals make better decisions on what problems to address, how to address them, and how to sequence their interventions. Unplanned events and potential conflicts during the implementation of a project create a high ethical burden for many professionals. These unexpected events can lead to project delays and other challenges that may hurt the recipients of the project and their welfare. Risk analysis is relevant for the use of innovative technology, for example, in the case of AI and machine learning (AI/ML) applications. AI/ML is being applied to nearly every sector to improve efficiency, automate labor-intensive tasks, and extract relevant information across large data sets. However, this technology also carries risks that professionals need to manage and mitigate, especially if they are working on programs that serve vulnerable or marginalized communities. Therefore, for these reasons, training in risk analysis and risk management is an essential skill that international development practitioners must possess, and it serves as another area where graduate schools could strengthen their course offerings.

SOFT SKILLS
Besides hard skills, soft skills (or interpersonal skills) are competencies and character qualities that apply to any professional environment, such as critical thinking, problem solving, leadership, collaboration, knowledge of different cultures, creativity, and communication. However, unlike hard skills, soft skills are much more difficult to teach in formal educational settings.

In the digital age, it is important that development professionals take a human-centered approach to technological solutions and not assume that any technology will provide a cookie-cutter answer. In essence, this is an approach that prioritizes the needs and preferences of users and includes a human perspective in every aspect of the design process for tech solutions. This approach designs tech solutions and products “around users, rather than requiring users to adapt to the products.” To produce effective development outcomes, professionals need to be able to adapt technological solutions to the local context, which requires character qualities such as empathy and cultural sensitivity.

At the same time, development practitioners should engage and work with private-sector actors in the digital space, including big technology companies, fintech companies, mobile network operators, and
contractors. These actors have a multidisciplinary workforce, so development professionals need to convey information in a way that is easy to understand across sectors and specialties. When engaging with small- and medium-sized enterprises (SMEs), one area where these organizations lag is in cybersecurity since they have low budgets for IT security and lack awareness and cyber skills. SMEs are increasingly being targeted by cyber criminals; this is where development professionals can help communicate the needs of strong cybersecurity systems and help SMEs build that capacity. In addition, to design digital solutions collaboratively with the private sector, the soft skills that remain critical in this domain are the ability to negotiate and structure partnerships with private-sector actors.

Within the actors of the digital ecosystem, China is investing in digital transformation abroad by developing AI and 5G cellular technology while defying global standards and values embedded in the West. This type of digitalization carries risks, including introducing data privacy issues, perpetuating false narratives in development, and facilitating digital authoritarianism. Professionals working with governments and decisionmakers in developing countries need to be able to communicate persuasively and diplomatically about the risks that different investors and digital models carry.

**POLICY AND GOVERNANCE SKILLS**

Lastly, given the complexity of both the international development field and digital ecosystems, students should graduate with strong policy and governance skills. Professionals need to understand the digital ecosystem (connectivity, ID systems, interoperability), its governance, and the principles and values that are embedded into these digital systems.

Fundamental democratic principles include safeguarding individuals’ privacy, civil liberties, and freedom of expression, and these values may or may not be embedded in digital systems. In countries with weak democratic systems, digital users can be subjected to authoritarian practices where they experience a violation of their civil rights and right to privacy. In this regard, digitalization has created vast data repositories that store sensitive and private information from users. Without proper laws and governance to safeguard privacy, this data will become vulnerable for misuse. Also, digital systems should safeguard people’s integrity; hackers and rogue actors can misuse digital technologies to steal an individual’s identity and commit fraud.

There are governance aspects related to the use of innovative technology, especially regarding internet use. In developing countries, there is still a wide digital divide, with citizens lacking access to digital infrastructure, such as reliable sources of electricity and high-speed internet. As more people gain access to digital tools and connect to the internet, governments enact regulations and policies to govern their use. At the moment, there is no single international standard-setting body that governs the access and use of the internet; different governments are promoting their own digital governance vision, policies, and standards. China, for example, supports a model of “cyber sovereignty,” where countries exercise their sovereignty over information and data exchanged online—controlling and censoring content, shutting out access in part or in whole, and enforcing data localization requirements. Authoritarian regimes such Iran, Saudi Arabia, and Russia are supportive of this model. Europe, on the other hand, adopted a user-privacy-first approach to digital governance, enshrined in its 2018 General Data Protection Regulation (GDPR). A democratic approach to internet governance includes principles such as pursuing a free, open, and interoperable internet; a free cross-border flow of data; regulations that foster innovation and the growth of emerging technologies; and protection of personal information and sensitive data from illiberal actors.

There are also wider national security and policy implications in the use of digital tools, including safeguarding the stability and integrity of the financial system. By employing digital tools, malign actors can impact the stability of the financial system of a country by conducting illegal activities, such as cyberattacks, money laundering, and terrorism financing.

There is a growing concern that without intentional policy and technology design choices, digital transformation will exclude people, such as ethnic minorities or other vulnerable populations, and increase existing inequities present in different societies. Without human intervention in the design of the digital
architecture, technologies can also end up reinforcing social biases and exacerbating inequality and the digital divide. For example, predictive technologies like AI and machine learning need to be properly designed to mitigate these issues.

In sum, these ethical implications should be incorporated into coursework or seminars so students are better prepared for the challenges ahead. As digital transformation continues to accelerate worldwide, governance, values, and ethics underlying digital technologies should be top priorities in the curricula of graduate programs.

**BARRIERS TO DIGITAL TRANSFORMATION**

Despite the need to better equip future development professionals, graduate schools face several barriers that prevent them from teaching hard, soft, and policy skills related to digital transformation. Some of these hurdles relate to resource constraints, such as limited budgets, that preclude universities from hiring experienced professors or acquiring cutting-edge technology. There is also a lack of attention and understanding from the universities’ leadership—such as provosts, deans, and master’s program directors—on the value of some of these topics. In addition, some professors can be resistant to change and less likely to invest their time into learning skills related to advanced technologies. They might not know how to go about improving their syllabi or designing new courses that integrate digital transformation knowledge and skills.

“In universities and policy schools, leadership on the importance of inclusive digital policymaking is key. At Columbia University’s School of International and Public Affairs, technology and innovation are among the global policy challenges that our dean has identified to anchor our research, teaching, and policy engagement.”

—Eugenia McGill, Codirector of the Economic and Political Development, Columbia University Concentration, Columbia SIPA

At the same time, the rapid pace of technological change is itself a challenge for universities. The speed at which technology is evolving requires continuous updating of content and lessons. But in practical terms, given the pace of change, it is exceedingly difficult or nearly impossible to keep an updated and sophisticated curriculum. In addition, faculty members constantly need upskilling and training on digital topics to stay current on the state of the industry. Furthermore, it is also hard to find professors with the necessary experience on emerging technologies. Since universities compete for funding and need to attract students and qualified professors, they are often reluctant to share lesson plans and curricula among each other. This leads them to work in silos, stifling innovation in programs and potentially stunting progress.

Finally, international development as a field often struggles to include marginalized voices in development strategies and project design. Understanding local communities and cultures and including their perspectives should therefore be viewed as a prerequisite for building a thriving digital ecosystem. When applying digital tools in development contexts, students need to understand that there are certain issues that affect developing countries more prominently, such as the digital divide, gender exclusion, and climate...
vulnerability. That is why it is so important to use human-centered design principles when approaching tech solutions.

A CALL TO ACTION: CONCRETE STEPS UNIVERSITIES CAN TAKE TO MOVE THE DIGITAL AGENDA FORWARD

Although universities face several challenges and are slower to adapt to the digital age than other institutions, change is possible. Progress does not necessarily mean that schools must completely overhaul their programs and syllabi. Universities can start slowly by gradually tailoring their approaches, revamping curricula, and implementing strategies that integrate critical digital topics and skills into their course offerings and programs. In that way, they will better prepare the next generation of development practitioners for the digital age so that these professionals feel empowered to address the global challenges of tomorrow.

Universities can take concrete steps to improve their coursework and skills related to digital transformation in the short, medium, and long term. These approaches include significant efforts to engage university leaders (e.g., deans, provosts, and master’s program directors), form academic networks, create partnerships with companies and other organizations in the field, expose students to practical experiences, pursue more interdisciplinary approaches within graduate programs, and incorporate digital ethics and governance into their curricula.

SHORT-TERM APPROACHES: WITHIN ONE YEAR

■ Proactively Engage University Leaders: From the ground up, businesses, professors, and students will need to find ways to create engagement among the leadership of the universities on the importance of digital transformation. As a first step, it is important to demonstrate to deans and provosts what skills and knowledge employers are demanding and what recent graduates are lacking. To make a stronger case, it is important to present concrete data and metrics, for example, on which classes and subjects are oversubscribed and undersubscribed, what student surveys show, and what graduates’ employment trends are. This information can be a strong signal for change. Educating academic leaders on the importance of digital development can be pursued today.

■ Form Strong Academic Networks: Despite the naturally competitive environment that exists within academia, professors from different universities can create networks where they can share ideas, experiences, and approaches to digital topics. These networks can create better communication channels among students, professors, and potential employers and can help align coursework and training with the demands of the industry.

MEDIUM- TO LONG-TERM APPROACHES: WITHIN TWO TO FIVE YEARS

■ Bring the Expertise of the Private Sector: Graduate schools need to bring together the development issues of the day, the subjects students are interested in, and the critical skills companies value. Therefore, school administrators and professors can approach companies and development institutions to weigh in on program and curriculum designs. These conversations might help align coursework and training with the demands of the industry. There is also a need to combine the knowledge of core tenured faculty with the expertise of practitioners. To help alleviate this gap, universities can invite professionals working in various industries and geographies as guest lecturers or hire them as adjunct faculty. Additionally, schools need to be informed by market signals to allocate their funds; for example, assume students are increasingly interested in pursuing a STEM-related degree or incorporating a STEM subject into their current degree. In that case, university leadership should incorporate these developments into funding plans. Partnerships between multiple sectors can bolster training in STEM-focused areas, including engineering, computational analysis, coding, and the understanding of innovative and emerging technologies. Allowing students to collaborate with private-sector clients can provide them with skills that development professors lack expertise in.
Structure Innovative Partnerships so Students Can Gain Practical Experience: Additionally, universities can partner with companies, nonprofits, and aid institutions to develop internships and apprenticeships for students. They can also pursue client-centered approaches through capstone projects, blending theory and practice. For example, researchers and students at Auburn University partnered with Walmart to apply innovative technology in solving some of the company’s supply chain management issues. Walmart also partnered with John Hopkins School of Advanced International Studies to create the Global Policy Challenge, where students collaborate with the Government Affairs team at Walmart to address complex challenges, such as climate change and emerging technology. SIPA has 30 capstone projects focused on digital development issues, partnering with governments (such as Brazil, Estonia, and Kazakhstan), UN agencies and programs (such as the International Organization for Migration, the United Nations Capital Development Fund, the United Nations High Commissioner for Refugees, and the United Nations Children’s Fund), and NGOs and social enterprises (such as Instituto Palmas, Self Employed Women's Association, TechnoServe, and WeRobotics). These exercises expose students to real-world applications of digital technologies in the development field. They also give students hands-on experience working in a particular industry. This real-world exposure allows students to gain relevant skills so they can better transition into the workforce. Collaboration between different industries (e.g., tech and retail and tech and food processing) continues to be an untapped tool. Through these partnerships, universities can bolster training in more STEM-focused areas, including engineering, computational analysis, and coding. Additionally, universities can encourage students to gain overseas experience through internships and study-abroad programs. Universities across geographies can design student and faculty exchange programs to provide valuable insights into how digital tools and applications can be implemented in different counties. For example, WPI’s Development Design Lab brings humanitarian and STEM practitioners together and allows them to engage in development projects with non-Western partners in low- and middle-income countries. At SIPA, the “Computing in Context” course is cotaught with data scientists from Columbia’s Data Science Institute and applies computing concepts and Python programming to address public policy issues.

Within Graduate Programs, Pursue More Interdisciplinary Approaches: Public policy and international development programs can “cross pollinate” with other disciplines, such as economics, engineering, health, and management. This collaboration can be achieved by offering cross-registration with different schools and hiring faculty with field experience in specific sectors (e.g., health, education, and finance). Additionally, public policy and international development programs should engage with engineering, health, and education master’s programs, which do not necessarily have an international focus but can provide valuable insights.

Offer Courses and Seminars Related to Digital Governance and Ethics in Technology: Overall, the topic of ethics in digital transformation is a great opportunity to bring together different disciplines. Producing a curriculum that includes a discussion of the risks, human rights impacts, and foreign policy implications of innovative technology (e.g., AI/ML and biometric technology) may be difficult, but some solutions include combining tenured faculty with practitioners, as well as embedding ethics into development courses. It is important to note that ethics should not be taught separately but ideally should be incorporated into all lessons.

CONCLUSION
Digital transformation is disrupting the field of international development and propelling it into new directions. International development professionals will need to learn new skills and gain a deeper understanding of how technology and its applications can be used responsibly to solve global challenges. Graduate programs in international development, public policy, and other related fields play a huge role in training future
development professionals, and therefore, must equip students with hard, soft, and policy skills. Currently, budget constraints, faculty composition, and the speed at which digital technologies change make it difficult for graduate programs to integrate digital courses and training into their curricula.

However, universities can overcome some of these barriers by engaging their leadership, structuring strong partnerships with companies and development organizations, and pursuing interdisciplinary approaches, among other strategies. Although these changes will take time to materialize, we can plant the seed of a “digital revolution” in universities today. Universities should prepare the next generation of development practitioners for the digital age so they feel empowered to address the global challenges of tomorrow.

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ENDNOTES


9 GIS is defined as a “computer system that analyzes and displays geographically referenced information” in “What is a geographically referenced information system (GIS)?” United States Geological Survey, https://www.usgs.gov/faqs/what-geographic-information-system-gis.


24 Runde and Ramanujam, “Digital Governance.”


