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Higher Education Interventions During and Beyond the COVID-19 Pandemic

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Contents

List of figures

Preface

Fernando dlC. Paragas

The COVID-19 pandemic has placed all of us in seemingly unchartered territories. It has thrust us from the comfortable confines of our campuses to virtual spaces which are at once exciting and confounding. It has disrupted our organizational procedures and educational practices. It has made us reflect on our present circumstances and envision a changed future.

While the pandemic came all too suddenly, it surfaced when many of us have already built the foundations, even if unknowingly, on which we are now building interventions and introducing innovations that will define the future of higher education in the Philippines.

In this monograph are seven papers which essay how key sectors and organizations are not only surmounting, but even thriving amid, the challenges posed by the pandemic.

Two papers look at the big picture of higher education during the pandemic. Peter Sy of the University of the Philippines (UP) Diliman examines how we can address paucities in online external resources in higher education using lessons we can glean from interventions in basic education in geographically isolated and disadvantaged areas. Vicente Fabella and Amor Mia Arandia, meanwhile, provide a thorough examination of the challenges that private institutions now face and offer holistic solutions to improve flexible learning experiences. They draw insights from their work at Jose Rizal University (JRU), where Dr. Fabella is President.

Many institutions, meanwhile, have appropriated the pandemic as impetus to expedite and improve upon their previous inroads into alternative modes of learning. President Ester Garcia and her colleagues Melvin Vidar and Roselle Basa write about how the University of the East (UE), one of the biggest private higher education

institutions (HEIs) in the country, has been able to strengthen itself amid the pandemic because of strategic decisions made almost a decade ago. They explain how the many stakeholders of the UE community have moved singularly to surmount the challenges posed by the pandemic. Meanwhile, Paul Anthony C. Notorio, drawing from his experiences at the De La Salle University–Dasmariñas (DLSU–D), explains the pivotal role of an educational technology office during this transition into virtual education. He shares important insights on the need for iterative training and flexibility in program support. Marissa Fearnley and Geronio Ulayao of the De La Salle-College of St. Benilde (DLS–CSB) highlight the value of online education as a flexible approach during the pandemic. They talk about important interventions that empower faculty members and their students in the new normal.

Bert Tuga, Jennie Jocson, Celia Ilanan, and Ruth Alido, writing about the Philippine Normal University (PNU), explicate how the pandemic has hastened a revolution in higher education in which technology helps personalize the learning experience. Their paper balances the promise and the reality of technology as it gets embedded in educational principles and processes. Nicanor Guinto, Brian Villaverde, and Shiela M. Manzanilla discuss the on-ground reality of limited resources and pitfalls in technological infrastructure based on their struggles at the Southern Luzon State University (SLSU). They explain how the strength of their community, built upon and fostered by continuous consultation, is helping them surmount these challenges.

The papers in this monograph indeed capture and document the spirit of innovation that now drives HEIs in transforming themselves amid and beyond the pandemic. Moving forward, our prayer is for their interventions to realize their objectives, for the collective improvement of higher education in the Philippines.

1

Open educational resources for geographically isolated and disadvantaged areas

Peter A. Sy

The quality of Philippine higher education depends on the stream of quality students from across the country. However, paucities in the availability of open educational resources (OER) in basic education in remote rural areas means students there maybe poorly prepared for tertiary education. This paper examines the state of OER in geographically isolated and disadvantaged areas (GIDAs), a term coined by the Department of Health (DOH), to refer to "communities with marginalized populations physically and socio-economically separated from the mainstream society" (DOH n.d.). It offers recommendations on improving OER delivery, which also has implications for remote learning during the pandemic across all levels of education.

As it is, the situation in GIDAs is far from ideal. However, physical (e.g., physical isolation, exposure to extreme weather conditions, lack of transportation) and socio-economic (e.g., high poverty incidence, armed conflicts, economic crises) factors worsen the situations in these areas. Moreover, other layers of disenfranchisement could be seen in these areas, not the least of which is technological. Communities in GIDAs lack access to the internet; when they do have internet access, it tends to be erratic and expensive.

The isolation and disadvantages these communities experience are reflected in the lack of opportunities and resources in basic education. Existing inequalities are exacerbated by the "digital divide," with communities in GIDAs often left with outdated analog materials. While poor learning outcomes and achievement scores plague Philippine basic education in general, the situation is far worse in physically isolated rural areas than in more accessible urban locales. "[R]ural educational attainment…continues to lag behind that of urban areas" (Zamora and Dorado 2015, 70).

The current education crisis

Textbooks (whether analog or digital) are just part of a range of essential educational resources (e.g., curricular programs, teacher training and support, classrooms, libraries, science laboratories, water, electricity) that schools need. But nowhere is the lack of opportunities and resources made clearer than in teachers' and students' experiences around textbooks. Despite increased government spending on education in recent years, the availability of good quality textbooks and instructional materials remains limited (World Bank Group and Australian Aid 2016; Hernando-Malipot 2019), and GIDA schools tend to get the rawest end of the arrangement.

In the 2018 Programme for International Student Assessment (PISA) study, which involves mostly 15-year old students from among 79 participating countries and economies, the Philippines scored the lowest in reading comprehension (OECD 2019). While student performance is never a result of just one, but multiple factors, reading proficiency presupposes adequate access to textbooks and other instructional materials (whether analog or digital). There is simply no getting around it. Failing in such proficiency puts into question our people's ability to navigate through a wide variety of human activities—"from following instructions in a manual; to finding out the who, what, when, where and why of an event; to communicating with others for a specific purpose or transaction" (ibid., 15). As reading is a gateway skill to all of learning, textbooks and other instructional materials are at the core of the current education crisis.

While the PISA study results were disappointing, they were not surprising. Many of our textbooks in basic education, especially those available (if at all) in GIDAs, are "sick books" riddled with errors (del Mundo 2015) or "wow *mali*" textbooks printed on "*papel de lambot*" (Mateo 2019). Where good books should be available, many of these materials—27 million of them in 2018—remain undelivered (Palaubsanon 2019). Moreover, del Mundo (2015) writes:

> Because of the failure of the [DepEd] to deliver essential needs on time, teachers and pupils xerox learning materials at their own expense. They download subject content from the Internet and have them copied and distributed to their pupils.
>
> They must also grapple with textbooks that are riddled with errors—a problem that has persisted through the past two decades as student proficiency in English, math and science deteriorated. Public outcries over teaching materials lost in translation sparked public indignation and well-publicized congressional investigations in the past and were soon forgotten after the TV camera lights went out.

OER and the need for teaching and learning innovation

The enormity of the challenge in textbook production, distribution, and utilization and the larger Philippine education crisis cannot be overstated. The Department of Education (DepEd) pegs the total number of students or learners scattered all over the Philippine archipelago needing textbooks for different classes at about 27 million (DepEd 2018). There is no brute-forcing the challenge that requires a range of innovative solutions.

Part of the solution is the use of open educational resources, especially in GIDAs. These are "teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions" (UNESCO 2012, 1). The production, distribution, and utilization of OER in all levels of education help improve cost-efficiency and contribute to social inclusion and lifelong learning as well as help improve the overall *quality* of instruction (ibid.). While OERs are not inherently perfect, the spirit that produces such materials *is about* open processes and constant, quick self-correction and improvement—at least minimizing "wow *mali*" information and poor quality that tend to linger in the current commercial, poorly regulated market of textbook production. "Given enough eyeballs, all bugs are shallow," states Linus' law, in a similar spirit of open collaboration (Raymond 2001).

The introduction of OER in GIDAs is not just going to be about cost but also about innovation in the overall education experience. OERs are not just about "reaching out" to GIDAs. It is about learning itself from the challenge of having to make quality education work *despite* the paucity of good textbooks and other instructional materials, teacher training, and support services. GIDAs offer teachable moments in innovation necessitated by scarcity and perennial neglect. Given the right encouragement and human agency, GIDA communities provide the necessary condition for innovation to flourish.

OERs *qua* ed-tech innovation must be considered as being multi-faceted. While OERs are tangible, distributable, usable products in education, they also involve processes, designs, pedagogical models, market considerations that when combined properly can effectively address the "pains" in teaching and learning and ultimately satisfy the educational needs of GIDA communities (see Figure 1 on next page). OERs are designed to be part of quality courses and sound pedagogy. They are not standalone solutions, but an integral part of holistic education reform.

OERs themselves generate attendant problems as well (for instance, the availability of access devices). But when framed as part of a larger innovative approach in addressing the education crisis, many of these problems involve unavoidable trade-offs that need to be tackled head on. For instance, the rapid shift to digital and multimedia materials would necessitate the use of readily available quality OER, even

Figure 1.1
The innovation arch
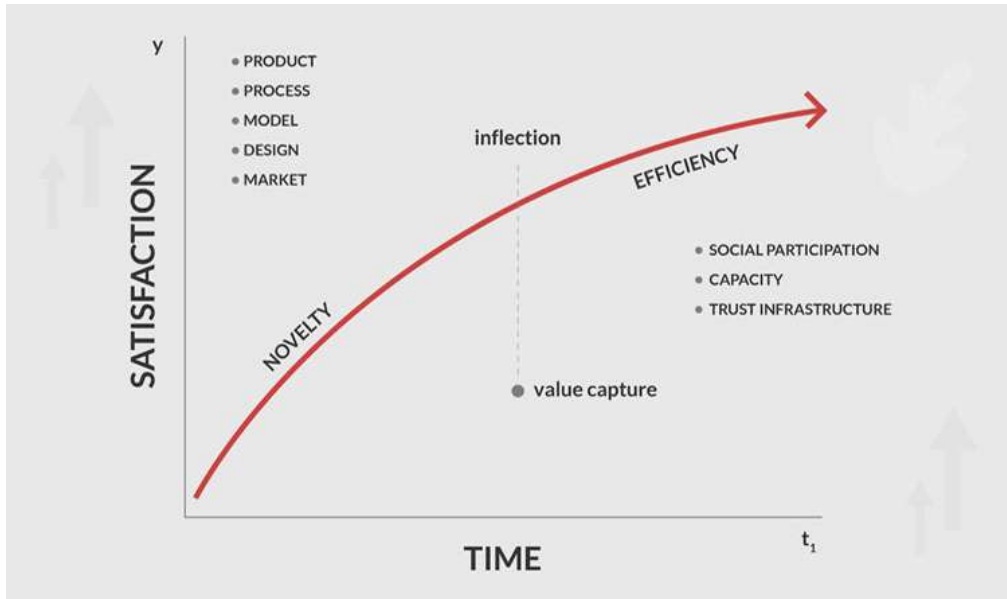
Source: Author's presentation; graphic by MI Medina

as they entail initial upfront cost (e.g., for access devices). The total cost of "ownership" (TCO) of OER would be dwarfed by the total cost and consequences of miseducation and the dearth of quality textbooks and instructional materials in GIDAs. Even the preferences of GIDA students and teachers have increasingly shifted towards the digital (i.e., videos, photos, graphics, texts). Not responding to such a shift deprives GIDA learners of acquiring the requisite digital literacy that simply cannot be catered by analog materials.

The inflexibility in the production, distribution, and consumption of analog textbooks and instructional materials is part of the problem. While they remain the "gold standard," these materials cannot be solely relied upon as response to the changing preferences and needs of their users.

Take, for instance, DepEd's recent initiatives toward indigenization, localization, and contextualization of academic curricula. It would be hard to imagine scaling these initiatives and reaching GIDAs in time without the production, use, and reuse of local digital OERs. With analog textbooks' long production and distribution chains, they cannot be expected to respond to the challenge efficiently. While OERs cannot be expected to replace analog textbooks in a wholesale manner, they have to be part of innovative approaches to the paucity of instructional materials in GIDAs and to the larger Philippine education crisis. With over 70 ethnolinguistic groups in the Philippines, the analog textbook economy, primarily driven by profit motives,

cannot be expected to address essentially niche markets of indigenized, localized, and contextualized curricula in the different regions. OERs, on the other hand, are congenial to the latter markets. An OER ethos and practice of open collaboration, reuse, and remix of open contents, methodologies, and community-generated materials can be expected to generate more locally appropriate contents.

These lessons can then be extrapolated in higher education where they may be similar issues in the production and availability of OER. The need for these lessons to inform higher education initiatives is made even more urgent by the pandemic.

OERs and the pandemic

Amidst the current COVID-19 pandemic, the dominance of the analog torments our teachers in GIDA communities more than their counterparts in other areas. In preparation for the school opening in October 2020, schools have been running (for months) day-long operations for printing modules from district offices, scourging for printers, paper, and other printing materials. They have been brute-forcing logistical (not to mention, quality) problems in the production and distribution of instructional materials, despite their physical isolation and economic disadvantages.

To address both the education and health crises, nowhere is the need to innovate using OER more apparent than in GIDA communities. The whole-of-government approach touted by the DepEd and other government agencies is apparently not enough. GIDA schools and teachers would also need a "whole-of-community" approach by leveraging OER communities of practice and stakeholders' interest in basic education.

To supplement efforts in production and distribution of analog modules, OER projects can be initiated in GIDAs with minimal costs, even in areas where access to the Internet is at best spotty. For instance, a 3,000-peso microserver can be fashioned as a WiFi-accessible, no-internet-needed repository of quality digital materials around which lessons in basic education can be run. This credit-card size contraption can already serve hundreds of teachers and students and be carried around easily enough to reach far-flung areas (see, for example, the eLibrary Project (n.d.)). While there is indeed a paucity of access devices in GIDAs (and a school would be fortunate enough if 30 percent of its students have gadgets), the solution to the lack of instructional materials can only be more OER projects. Only increasing the "more of the same" analog textbooks and instructional materials is like using a broken device again and again, hoping it is going to work down the line.

Ways forward to scale and efficiency

Open collaboration is the core of the OER ethos that can drive innovative projects in many levels of education. Collaboration-powered OER "will play an important, if not essential, role" in addressing the world's educational crises (McGreal 2017, 292).

On the part of teachers, "OER, as digital and dynamic resources, have the potential to enhance teaching and learning practices by facilitating communities of teachers who collaborate, share, discuss, critique, use, reuse and continuously improve educational content and practice" (Petrides and Jimes 2006; Frydenberg and Matkin 2007; Geser 2007; Petrides et al. 2008; Casserly and Smith 2009, cited in Petrides et al. 2010, 390). This is in stark contrast to the practice of the DepEd of outsourcing textbook production to invited publishers who submit manuscripts and offer tenders but assume no responsibility to correct errors (del Mundo 2015). Accountability in the OER production model is organic to the iterative processes of teacher collaboration, sharing, and use and reuse of OER. Open collaboration tends to generate more eyeballs that can spot errors and weaknesses. Shortages in textbooks, teachers, classrooms, and other logistical support can be mitigated by a level of efficiency possible only with open collaboration primary among teachers and stakeholders. It is unreasonable to expect that the current way of producing analog instructional materials could be scaled fast enough to meet existing demands that are exacerbated by the current pandemic.

By design, OER projects tend to involve co-management and co-ownership of digital assets and repositories, in contrast with the current top-down approach dominated by a cottage industry of poorly regulated publishers. This kind of arrangement tends to empower local teachers as nodes of an OER production network. In this model, teachers are active innovators as they share and learn from one another, curating OER "products" while actively using and reusing them at the same time.

On the part of students, their exposure to OER and open education has been shown to have encouraged them "to become co-creators [of contents]…[improving] their digital lifelong learning abilities and [inspiring] them to use open education principles or resources in their quest for knowledge" (Andone et al. 2020, 34). The current overemphasis on individual work among students using "closed" specialized contents does not cut it anymore, with complexities that characterize the modern workplace. The latter requires collaborative skills that analog materials and approaches tend to underemphasize. The school experience of the student is just a moment in an otherwise basic mode of thriving: lifelong learning. Not teaching digital learning and collaboration skills at schools is wasted or denied opportunity.

In these educational dynamics by teachers and students lies the need to create an even larger positive feedback loop in institutions and the government. A recommendation of the 2012 Paris OER Declaration enjoins member states to "[s]upport capacity building for the sustainable development of quality learning materials" (UNESCO 2012, 2). This recommendation calls to "[s]upport institutions, train and motivate teachers and other personnel to produce and share high-quality, accessible educational resources, taking into account local needs and the full diversity of learners[; p]romote quality assurance and peer review of OER[; and e]ncourage the

development of mechanisms for the assessment and certification of learning outcomes achieved through OER" (ibid.). Without such programmatic translation of the OER ethos, OER may suffer the same fate as earlier similar educational technologies like learning objects.

The Philippine government needs to have an effective policy to support and expand the current trust infrastructure built by the OER community of practice. Without such trust infrastructure, OERs would just be a short-lived novelty and GIDA communities are never able to capture the full value of OER innovation. *De facto* trusted OER platforms and projects like OpenLearn, Curriki, and RACHEL need to be used more proactively and integrated into our local curriculum development. Focused on indigenization and contextualization, a local counterpart of these OER platforms and projects could be built as "the institution's courseware development policies rather than being used on piecemeal basis" by teachers and students (Issack 2011, 9). So piecemeal, indeed, is the current use of OER in the Philippines that even the DepEd Commons (n.d.) initiative only amounts to a hodgepodge collection of materials barely qualifying as "open." The Commission on Higher Education (CHED) is yet to have a counterpart resource center or a model for individual higher education institutions to emulate.

To systematically expand and enhance existing but otherwise disparate utilization of OER, the government can incentivize, for instance, the release (as OER) of quality basic education materials from established publishers. How such OERs definitively improve learning outcomes in GIDA communities can be measured (for instance, in relation to increased reading proficiency) and incentivized accordingly. If basic education is judged on learning outcomes, why cannot for-profit publishers be assessed similarly? While textbooks are certainly no magical solutions to the education crisis, incentivizing education outcomes (rather than mere (mal)distribution of instructional materials) can propel an innovative mix of OER and non-OER products, designs, processes, and markets toward shared goals in education. Putting government agencies and education movers to task in addressing the education crisis, especially in GIDAs, can bolster the requisite environment for effective innovations in education in communities where they are most needed.

The government can also mandate and support the establishment of low-cost local OER repositories and other distribution media and modalities for GIDA schools and community centers. While the centralization of OER in repositories like the DepEd Commons might help, the real "kick" for OER is its micro-level uses in local communities, most of which may not have access to the internet. Coupled with a government-led OER-first policy, measures can be put in place to ensure that such materials are in fact being used in GIDAs and well-integrated in the teaching and learning process. The discussion of OER concerns in higher education, within and outside of GIDAs, meanwhile, must now commence.

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