



March 2015

DE LA SALLE UNIVERSITY  
RESEARCH • INNOVATION • CREATIVITY

# Questions



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We ask to

KNOW | ACT | CHANGE



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# QUESTIONS

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We begin with questions-

to survive changes.  
to understand our differences.  
to empower people.  
to make big ideas come to life.

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**QUESTIONS** is a publication of De La Salle University featuring research projects and creative endeavors by its faculty.

**QUESTIONS** supports De La Salle University's vision-mission to be "a leading learner-centered research university, bridging faith and scholarship in the service of society, especially the poor."

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QUESTIONS



Asian migration and health

*What will keep our migrants healthy?*



*Filipino and Chinese migrants are reluctant to avail of the free medical services and medicines in Europe. A research from the Yuchengco Center at DLSU examines this phenomenon.*

## THE HEALTH DIMENSION OF ASIAN MIGRATION TO EUROPE

Trinidad Osteria • Daniela Carrillo • Annavittoria Sarli

In the book *The Health Dimension of Asian Migration to Europe*, an Italian health service provider muses how the world of Filipino migrants is “a scarcely visible world,” even though there are a lot of these Filipinos in their homes. “They don’t create problems, they don’t cause any trouble, and they are in this silent world,” the interviewee notes, adding that when the host families try “to deepen their relationship” with them, these migrants hardly communicate. They can barely express themselves even if they have been in Italy for six or seven years.

Published by the De La Salle University Publishing House with the support of the Asia-Europe Foundation (ASEF) in 2013, the book captures interesting insights on the factors affecting the utilization of health services and the attitude of the Chinese and Filipino migrants toward the health care system in their countries of destination in Europe.

The book also notes that the European Union has recognized the need to improve the health situation of migrants and adopted an inclusive approach in the provision of health care services.

### Health care myths

According to the study, the migrants bewailed the lack of information on the structure of the health system and how to avail it. They also complained of the long waiting time in clinics, which prevents them from doing their income-generating activities. For migrants such as domestic workers, caregivers, and cooks who are mostly paid on an hourly basis, the time factor is an issue.



Osteria



It reveals that mistrust of the health services emanates from the client-provider miscommunication. Lack of fluency of the Italian/Spanish language prevents the migrant from adequately describing to the provider the symptoms and causes of the illness.

On the other hand, the physician relies on cultural mediators when giving diagnosis and prescription of medications. It happens, though, that cultural mediators do not have basic knowledge of health issues, and relies on their own discernment of the problem. Miscommunication leads to the frustration of the attending staff and the fear of the client that he/she may be misdiagnosed and prescribed the wrong medicine.

This leads to the perpetuation of the myth that the health providers are “unsympathetic” and “indifferent” and in many cases, “incompetent”. However, health policy makers posit that their providers underwent rigorous medical or nursing education and have undergone numerous refresher trainings. Therefore, they are in a position to attend to the needs of the migrants.



### Preventing the resurgence of old health problems

Dr. Trinidad Osteria, president of the Yuchengco Center and head of the team that undertook the research, says that migration poses new challenges to destination governments due to the need to deal with particular health problems which these migrants may bring.

A major concern is the resurgence of infectious and communicable disease which the European countries have controlled in the 1960s. They are particularly wary of tuberculosis.

In partnership with the Fondazione Iniziative E Studi Sulla Multiethnicita in Italy, Osteria and co-authors Dr. Daniela Carrillo and Dr. Annavittoria Sarli embarked on the investigation of the health dimension

of migration in the EU to determine the support necessary for migrants vis-à-vis the need to address EU’s demographic transformation, cohesion, and economic competitiveness.

Using a multimodal and multifocal approach, researchers in Milan and Madrid elicited the perspectives of both the migrants and health service providers, and thoroughly reviewed their health policies and programmes.

Osteria reveals that as a result of their study, an advocacy tool called Policy Brief was released to legislators in Europe to define areas of policy modification. A health booklet was also developed, providing information regarding the various health concerns that the migrants raised. This booklet addresses varied issues, such as the availability of effective

and cheaper medicines as well as the availability of experts who can accurately diagnose the causes and manifestations of illnesses. It dispels the myths and misinformation regarding health care providers and likewise addresses concerns on available language courses that will facilitate their integration.

Through these initiatives, the EU seeks to promote the spirit of inclusivity and equity in the utilization of its health care services. “The answer really is to work for the integration of these migrants. If they would be incorporated into the system of the country, it would be better for them,” Osteria says.

Dr. Trinidad Osteria is president of the Yuchengco Center at DLSU and the head of the research team on “The Health Dimension of Asian Migration to Europe.”

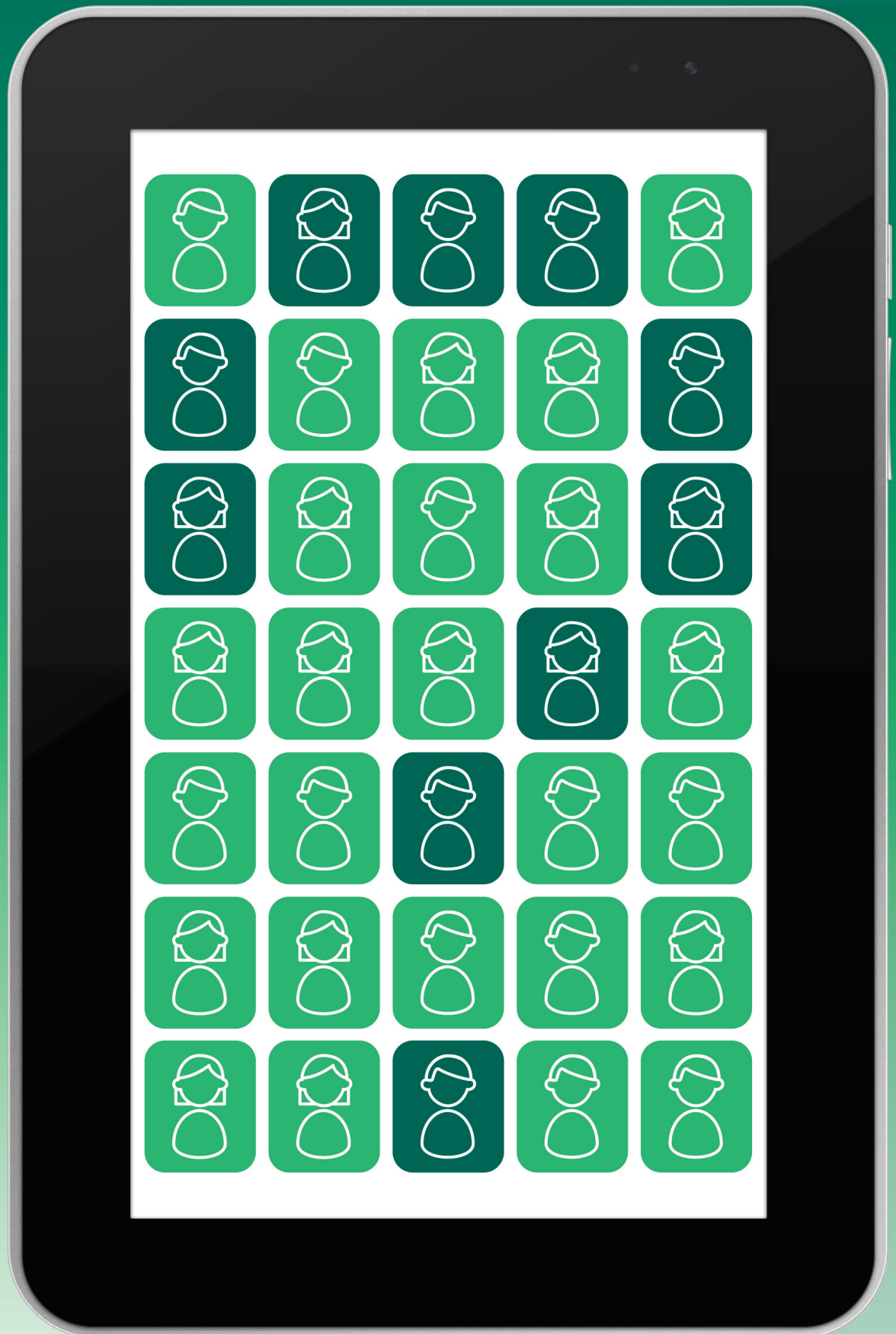
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Cancer management

*How can the sick  
be properly monitored?*



*A College of Computer Studies research project involving a faculty member and his students taps the power of information technology to support the monitoring and management of cancer patients.*



Malabanan

**“The system enables the patient to collect data everyday.”**

The World Health Organization (WHO) says that the burden of cancer can be reduced if there is an extensive knowledge about its causes and the interventions to prevent and manage it. It is reported that cancer, a leading cause of morbidity and mortality worldwide, has approximately 14 million new cases in 2012, and during that period, 8.2 million of deaths are cancer-related.

A key fact about this condition is that not all cancer patients die because of their cancer, but because of triggered complications. WHO further notes that around one-third of cancer deaths are due to the five leading behavioral and dietary risks—high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco use, and alcohol use.

The idea that cancer can be reduced and controlled by implementing evidence-based strategies for cancer prevention, early detection, and management of patients is at the heart of the research project “My Cancer Health Manager”.

De La Salle University Information Technology (IT) Assistant Professor Oliver Malabanan embarked on this research project in March 2014, mentoring a team of IT majors John Vincent Chavez, Keiffer Diestra, Genrev Lorenz Dy, and Daniel Galang.

Finding an opportunity in the era of digitized information to use technology for health, the team created and developed a tool that can record patient

information, from medical documents to lifestyle habits.

“One of the proponents of this research has a relative with colon cancer. The project started from that situation. The team was able to see the different things that need to be monitored for a colon cancer patient,” Malabanan says.

The team dubbed their project CHEMIS, which is short for Colon Cancer Health Manager Information System. They decided to make an android mobile and web-based application that would allow the cancer patient to monitor, track, and maintain the patient’s own health condition. This also allows easy access of the patient’s data for doctors and laboratory technicians.

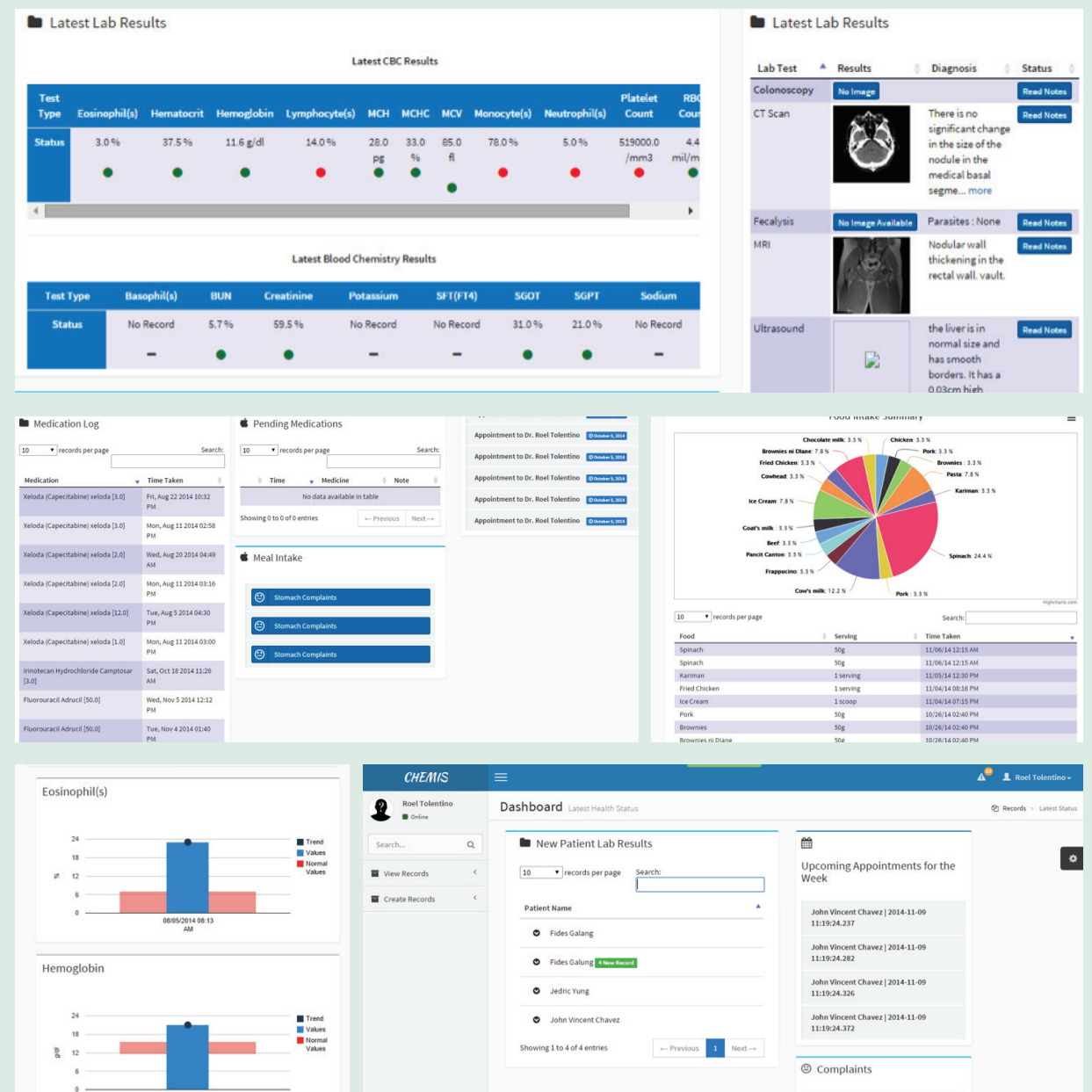
CHEMIS data is presented in graphical form, and this allows the doctor to get a bigger view of the patient’s health. “The system enables the patient to collect data everyday. And even if the patient cannot go to the clinic, the doctor can see the whole health situation, not just the particular symptoms,” Malabanan shares. He points out that the system enables the patient to remember

the doctor’s instructions and medications, as well as to get a complete recording of patient information.

An added advantage of the graphic system of CHEMIS is that it can prompt users if there are medicines that need to be taken by the patient. It can also detect anomalies in the health status record, giving concerned parties

the signal about the need for an immediate examination by the doctor.

Malabanan acknowledges the need to further develop the system so that it can accommodate a wide range of cases, not only colon cancer. With more time and resources, he says it can be improved and thus contribute to the prevention or management of illnesses.



De La Salle University Information Technology (IT) Assistant Professor Oliver Malabanan embarked on this research project in March 2014, mentoring a team of IT majors John Vincent Chavez, Keiffer Diestra, Genrev Lorenz Dy, and Daniel Galang.

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**Sustainable power system**

Can they keep the light on?





*With a commitment to introduce electricity to some of the remotest areas in the Philippines, the Center for Micro-Hydro Technology for Rural Electrification of De La Salle University teaches the Apayao folk how to maintain their newly developed power system.*



In the heart of the landlocked region of Apayao, some 600 kilometers away from Metro Manila, lay the mountain community of Parina. The trip to the secluded community is a three-hour trip from the nearby municipality of Calanasan, an already lengthy amount of time when added to the grueling 15-hour travel from Manila. The mountain community itself is only accessible via a rugged access road that constantly stymies vehicles. Like other isolated communities, Parina lacks basic services such as telephone wires, cell site coverage, and the service of an electrical power company. However, nights in the community are anything but dark as it is home



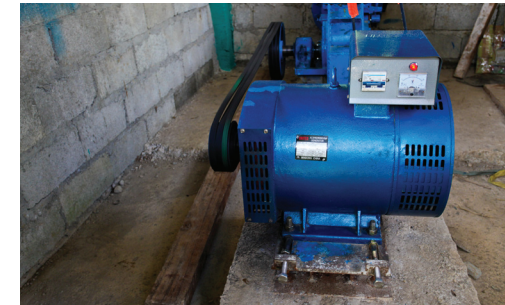
to a micro-hydro power plant, a project of De La Salle University and its partnership with SN Aboitiz Power. This 10-kilowatt power plant supplies power to 55 households in Parina. More amazing still, it is operated and maintained by Parina's residents.

Engineer Isidro Marfori III is the project head of the Micro-Hydro Technology power plant in Parina. He is currently a faculty member of DLSU's Gokongwei College of Engineering and project head of the Center for Micro-Hydro Technology for Rural Electrification (CeMTRE). As Marfori explains it, the micro-hydro power plant uses water sourced from nearby CadcaDir river which is diverted through canals and pipes. These pipes in turn are connected to a turbine. As the turbine rotates, mechanical energy is generated and transferred to an electric generator which then produces the electric power.

According to Marfori, the process does not add chemicals to the river or create gas by-products and is, thus, very clean. As a "run-off" system, no dams are put into place. Dams are notorious for unbalancing delicate ecological systems as these significantly alter the natural topography and displace wildlife. In contrast to dams, a run-off system such as the micro-hydro power plant merely diverts a much smaller volume of water and, thus, maintains the natural balance of the area. The sustainability of the system is one of the reasons why De La Salle University strongly believes in the project.

## Community engagement

In implementing the project, Marfori described DLSU's approach which he termed as "Community-based Micro-hydro System." The process was one of social engagement in which the community's active involvement and consensus was encouraged by the DLSU team. It was only after the consensus of the community was attained that the actual planning and design phases took place. Planning began with the selection of members of the Barangay Power Association or BAPA who were tasked with managing and operating the power plant. Marfori stressed that while DLSU can provide durable technology, the system can only function if the community is capable of caring and maintaining the plant. As such, the DLSU team imparted upon the community the importance of technology management and the skills to actively maintain the plant—from changing worn out parts to ecological awareness such as checking if their water source is still available and maintaining their forests.



## Sustainable power source

The micro-hydro power plant in Parina is not the DLSU-CeMTRE's first foray into the technology and the electrification of a remote community. Since 1998, DLSU has been providing electricity to underserved communities. As Marfori recounts, one of the earliest project areas for DLSU was Abra. "We have three power plants there that are still operational up to this point," he said. Marfori was also proud to point out that a cooperative emerged from one of the communities managing a power plant, which was evidence that communities were developing and even profiting from their new power systems.

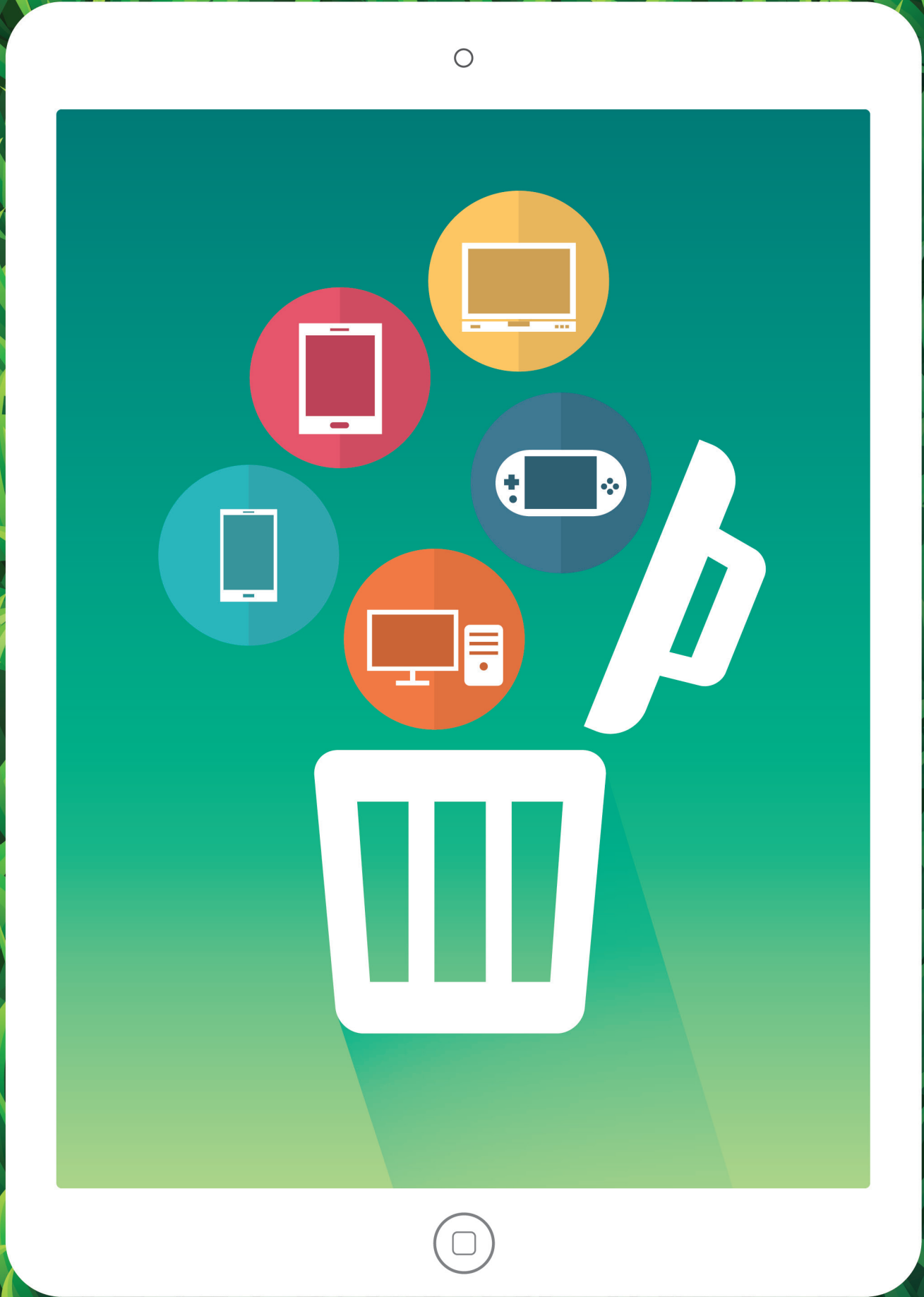
In regards to Parina itself, Marfori sees a number of ways in which the community can thrive with the help of the new power plant. For instance, residents can finally invest in rice peeling machines or put up a welding shop. Better still, since their energy

source is renewable, they need not worry about purchasing gasoline in order to power these facilities.

While Parina's outlook can be deemed positive, there are still many such communities in the Philippines that continue to live without the benefit of electricity. As such, DLSU aims to make the technology widely available to other universities so that they too can implement similar projects to other underserved communities. While such projects are logistically complex, Marfori reiterates that the completion of micro-hydro power plants will change lives. If the prior Abra projects are any indication, the Parina community is on track to experiencing growth themselves. And in regards to how long the plant will remain in operation, Marfori reiterates that, with proper care, the plant will last a lifetime.

Engineer Isidro Marfori III is a faculty member of DLSU's Gokongwei College of Engineering and project head of the Center for Micro-Hydro Technology for Rural Electrification (CeMTRE).

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E-waste management

# What e-waste hazards threaten our environment?



*DLSU researchers are finding ways to manage e-waste contaminants by monitoring how the informal sector handles the disposal of POP-PBDE, a chemical fire retardant.*



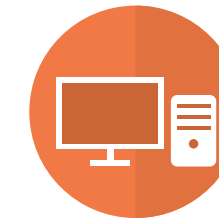
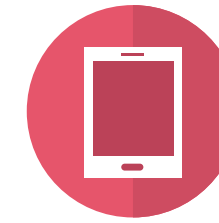
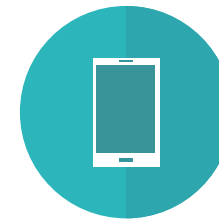
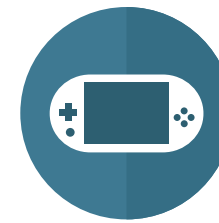
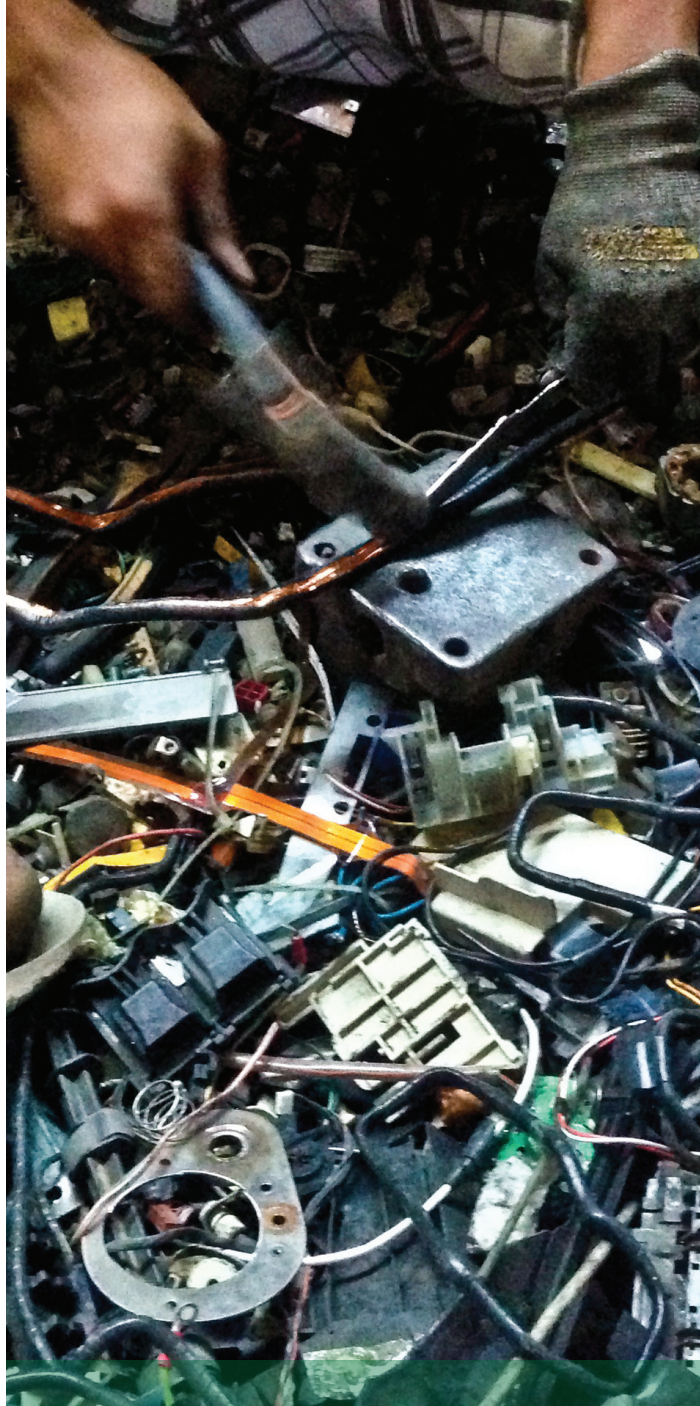
A team of researchers from De La Salle University's Br. Andrew Gonzalez College of Education and Gokongwei College of Engineering recently embarked on a project that looks into the proper handling and management of e-wastes.

Science Education Department Full Professor Dr. Maricar Prudente, who leads the team, says they are tracking POP-PBDEs, the short term for Persistent Organic Pollutants Polybrominated Diphenyl Ether and this initiative is relatively new in the Philippines.

"We are in the infancy stage. Not everyone knows about this, that's why we're pushing for more fora so the general public will know," she says. She notes that while environmental chemists and members of the academe convene about the problem, there is a great need to educate the general public about the issue.

Despite the health hazards they pose, POP-PBDEs still find their way into junkyards and landfills in the country. An estimated 11,040 tonnes of e-wastes and an equivalent of 5,650 tonnes of POP-PBDEs are accumulated and handled in these sites on an annual basis, posing a threat to the environment.

POP-PBDEs are synthetic chemicals that do not degrade, making them bioaccumulate. They are found in many items such as electronics, automobiles, and even toys. Traces of these chemicals have been found in animals, water, and even human breast milk, a clear indication of how the spreading of this persistent contaminant must be mitigated. Once a critical amount of this substance is absorbed by the human body, they mimic certain hormones and may cause detrimental harm to sensitive organs in the central nervous, nervous, endocrine, and reproductive systems.



Prudente notes that coming up with solutions for the country's POP-PBDE problem is a laborious and multifaceted process. The Challenge Grant team worked hand in hand with members of the informal sector for primary data. Researcher and PhD candidate Jovito Anito Jr. states that they had to go through several hurdles while conducting the inventory. "The challenge for the informal sector is always the same: the willingness of the respondents to cooperate. Most of the respondents are reluctant to disclose the information. They are also hesitant to accept interviews and if they do accept, they put up so many terms. Since we are dealing with the informal sector, these establishments are not being regulated by the government."

After gathering information through the inventory, specimens are then farmed out to

the partner universities abroad for a thorough analysis of how the pollutants affect us. High precision equipment is needed for the handling of these chemicals. In addition, a team from DLSU's Chemical Engineering Department was assigned to formulate solutions based on the findings.

Carrying out the inventory is a crucial step in helping those in the government and private sectors understand the impact of POP-PBDEs. Through this research, the academe is given the opportunity to help legislators by offering crucial points that will affect policies on industrial waste management. Prudente asserts, "We are talking about harmful chemicals that people use in industry. We have to consider the socio-economic factors involved. We cannot just tell them to stop using these chemicals. We have to consider all these factors. Otherwise,

so many people will be jobless. This is why we have to consider all these. We have to gather all ideas from every sector, so we can come up with practical solutions."

No matter how tedious and painstaking, the inventory of e-wastes is a crucial step towards treating a large-scale problem. The problem of e-wastes can be solved if we have a clear idea of what we are truly up against.



Prudente

The team's work for the DLSU Challenge Grant is an offshoot of a UNIDO (United Nations Industrial Development Organization)-funded study on the formal sector. The team opted to extend the breadth of their research because they saw how the informal sector, the largest handler of POP-PBDEs, can play a significant role in the assessment of the amount of this chemical in the environment. The study, a collaboration with universities in Australia and Japan, was conducted in connection with the Philippines' obligation to the Stockholm Convention on the elimination of POP-PBDEs.



Barangay Water Project

# Is your drinking water safe?



*In partnership with foreign universities, DLSU has embarked on an ongoing research that aims to improve access to safe water in the rural areas of the Philippines, through the development of malunggay biofilter.*



In 2014, the Philippine Congress declared malunggay (*Moringa oleifera*) as the national vegetable. It is a recognition of the growing list of medicinal and nutritional wonders of this plant, which is endemic to the country. From being a supplement for nursing mothers and infants to being used as treatment for skin problems, from preventing bone inflammations to boosting the immune system against the common colds, malunggay has another gift waiting to be tapped—its potential to be used for water purification.



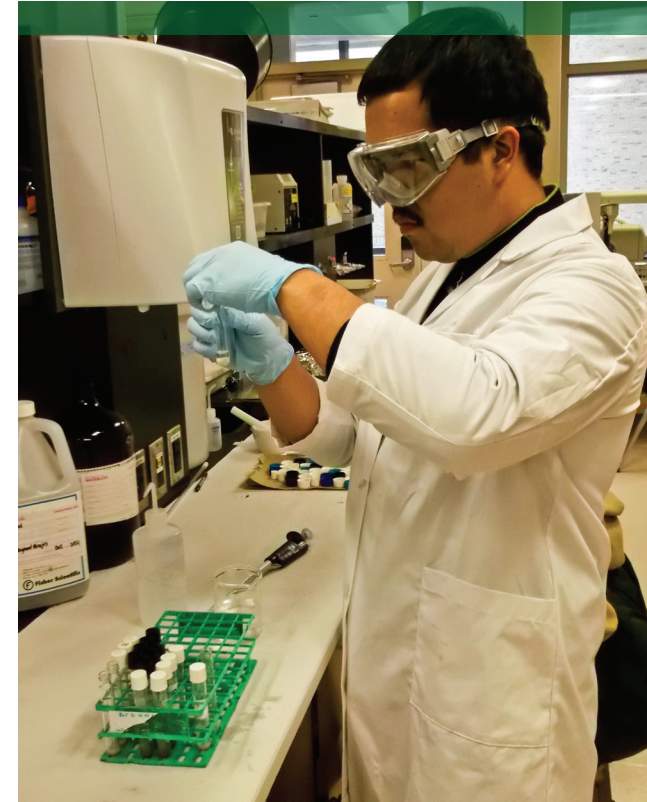
Razon



Dr. Luis Razon, director of De La Salle University's Food and Water Institute, shares that malunggay, particularly its seeds, is the key component in the development of an initiative dubbed as The Barangay Water Project. Under a collaborative agreement among DLSU, the University of Waterloo in Canada and the George Washington University in USA, the project seeks to develop a cheap and easily accessible water purification system, particularly for communities in rural areas in the Philippines.

Funded by the Canadian government through the Grand Challenges Canada/Stars in Global Health Program, the project integrates scientific, social, and business innovations that will lead to improvements in public health.

Razon says that the project is being pilot-tested in Mulanay, Quezon Province, located about 270 kilometers southeast of Manila, "a community that we already have a good track record with." He recalls that in a meeting with about 100 members of this community, the researchers learned, among other things, interesting facts about the local folk's sensitivity to the qualities of their drinking water.



The website of The Barangay Water Project describes the biofilter as having modular and flexible design, which can be adopted for use in households or larger communities such as evacuation centers. The filter contains the seeds and some sand, and can be put in a pitcher, similar to the commercial filters that make water clear, clean, and ready to drink.

The proponents point out that "a comprehensive study is also being done to determine the optimal strategies for introducing the technology to the market, expanding its market to the rest of the regions, and ensuring its marketability and supply over the long term." In the Philippines, many rural areas still lack the infrastructure for water treatment and distribution. With this project, communities can look forward to drinking safe water, as well as further promote the malunggay tree to help support the nutrition, food security, and livelihood in the country.



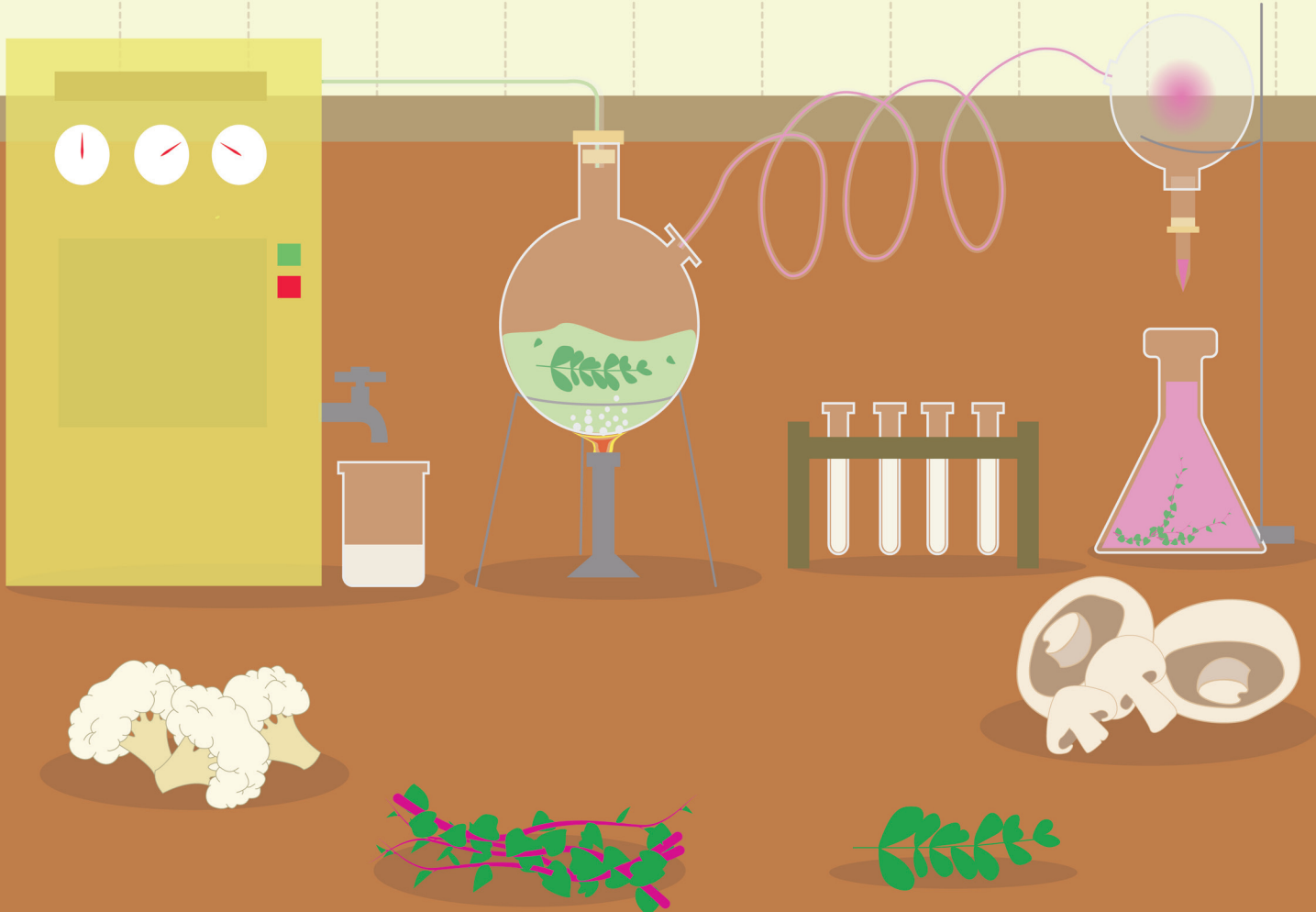
Dr. Sheree Pagsuyoin, assistant professor of Civil and Environmental Engineering at the University of Waterloo in Canada, is the lead investigator of the Barangay Water Project. Dr. Joost Santos, assistant professor at George Washington University, oversees the feasibility study for commercializing the malunggay biofilter.

Dr. Luis Razon, director of Food and Water Institute, is a member of the DLSU team working on the Barangay Water Project. The DLSU team is headed by Dr. Raymond Tan, DLSU Vice Chancellor for Innovation and Research. Other members are Dr. Aileen Huelgas; Dr. Michele Almendrala; Dr. Florinda Bacani; Dr. Susan Gallardo; and Engr. John Barajas.

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Food and health advocacy

# Can vegetables really fight off cancer?



A close-up photograph of a green leafy vegetable, likely a type of choy sum or similar, showing large, rounded leaves with prominent, light-colored veins. The stems are a vibrant purple color. The background is blurred, focusing attention on the texture and color of the plant.

*Professors of De La Salle University collaborate to characterize and determine the anti-cancer properties of selected vegetables and mushrooms in the Philippines.*



Enriquez



The Philippines has an abundance of leafy vegetables that now come to us in the form of wide-ranging health supplements, boasting mostly of their power to stave off various illnesses, from the most common problems like cough to the most complicated, such as cancer.

### But is there a scientific basis in claiming that these plants really cure cancer?

With this question in mind, DLSU professors of Biology and Chemistry Departments studied the anti-cancer properties of common Philippines fruits and vegetables. Among those they looked into were cauliflower, mustard, cabbage, alugbati, malunggay, guyabano, and mushroom. These plants are plentiful in the country and commonly used as ingredients in local dishes. Cauliflower, mustard, and cabbage are examples of cruciferous vegetables and are well-known to contain compounds that have anti-cancer properties.

“It all started when I realized that the Chemistry Department has so many extracts from plants and these are just stored in the refrigerator. After the extraction and characterization of the plants, there were no follow-throughs. So I thought we can form a group that will look into the chemical properties, as well as the biological properties of these plants,” says Dr. Ma. Luisa Enriquez, Biology faculty and Director of DLSU Center for Natural Sciences and Ecological Research.

This inter-disciplinary research conducted cytotoxicity and genotoxicity studies of the abovementioned plants. A vegetable is said to have a cytotoxic property if an extract, when added into cells in culture, will cause the cells to die. On the other hand, the genotoxic property involves the higher level of genetic change in the cell.

Due to ethical issues, they cannot test the extract in humans. In studying the vegetables' cytotoxicity, the team used cell lines (cells which have been grown from tissues of cancer patients and they have been purified in the laboratory) from leukaemia, colon, and breast cancer patients.

The results of their study are very promising. “We found out that the cytotoxic property of each extract differs from each other; one could be more toxic to colon cancer cell line while another is more toxic to breast cancer cell line. For example, labanos has the highest toxicity to breast cancer cell lines,” Enriquez states.

Their study also confirmed that guyabano is an immune booster that makes the body more resistant to diseases. Through their research, they provided a scientific basis to the biological properties of plants that are good in combatting diseases.

In the future, the group aims to develop a monograph in order to have a complete depiction of common Philippine fruits and vegetables highlighting the active substances, how each is best prepared for food, and the proper manner of cooking them, among other things, in order to be fully beneficial for the consumers.

“This way, the vegetables will be seen not just in their practical applications, but also have scientific basis as well,” ends Enriquez.

## Molecularly-targeted drugs

One of the concerns in the chemotherapy regimen is that normal cells are also affected. Hence, side effects such as falling hair and nausea are common. A cancer modality getting more attention in recent times involves molecularly-targeted drugs. This modality only targets the cancer cells and therefore healthy cells are not destroyed.

A graduate student also working on the project with the DLSU faculty team has designed a nanoparticle that was tested on a commercial drug. He was successful in delivering this commercial drug using the designed nanoparticle to a breast cancer cell line.

The team plans to expand the study to use the designed nanoparticle to deliver the anti-cancer compound from the vegetable extract being studied to specific cancer cell line targets.



Dr. Ma. Luisa Enriquez is a faculty member of the DLSU Biology Department and Director of DLSU Center for Natural Sciences and Ecological Research. She is working with fellow College of Science professors Dr. Marissa Noel, Dr. Anamie Paano, Dr. Connie Ragasa, and Dr. Carmen Tan in this project.

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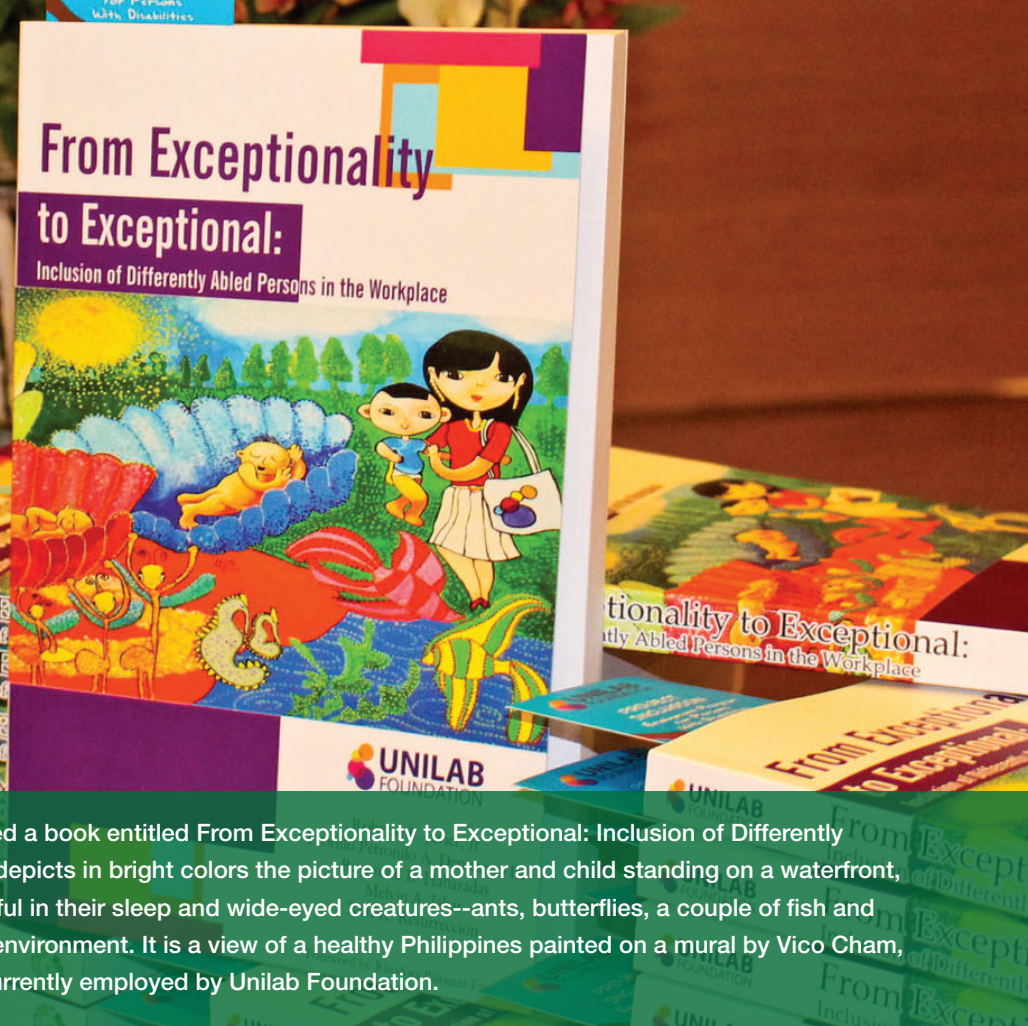
Inclusivity in the workplace

Can mental disability lead to exceptional work?





*Commissioned by Unilab Foundation, a team of top researchers from DLSU's Social Development Research Center (SDRC) affirms the necessity and positive impacts of including persons with intellectual disabilities in the workforce.*



In 2014, the DLSU Publishing House launched a book entitled *From Exceptionality to Exceptional: Inclusion of Differently Abled Persons in the Workplace*. The cover depicts in bright colors the picture of a mother and child standing on a waterfront, with babies in giant seashells looking peaceful in their sleep and wide-eyed creatures--ants, butterflies, a couple of fish and seahorses--all going about in a lush, sunny environment. It is a view of a healthy Philippines painted on a mural by Vico Cham, a person with intellectual disability who is currently employed by Unilab Foundation.



Javier



Habaradas



Demeterio



Resurreccion



Vico's story foregrounds the research conducted by a team of DLSU faculty members, who were commissioned by the foundation to look into some empirical evidence on the skills of individuals with intellectual disabilities, as well as on how these persons can actually contribute to business production.

Team leader Dr. Roberto Javier Jr., full professor of the Psychology Department, shares that his team from the Social Development Research Center (SDRC) investigated four major areas: clinical-developmental, business-organizational, social environment, and policy-legal framework.

The team tracked the behavioral changes among those individuals with intellectual disabilities, but who are presently working. They sought information on whether these individuals can actually contribute to their

workplace. They also looked into the social environment, to find out how these individuals affect others in as much as how they are also affected by their social environment. The team also studied policy or legal framework documents on inclusivity.

Javier says that the team had to look for companies willing to divulge information on individuals with mental disabilities. The results of their study, which covered 28 cases, offer significant insights on the subjects' experiences in the workplace.

"We were able to determine that they can participate in the workforce. They can contribute to production. They have specific skills that, when tapped, can be translated to productivity," Javier points out.

Some interesting notes from the study include the observed changes in the adaptive functioning of employees who are differently abled. The research notes that communication skills of the subjects improved, such as their being able to speak more comfortably in both English and Filipino, and even learning how to explore social media, like Facebook. At work, they were able to be more in control of their reactions, and they have become more thoughtful and mindful, not just of their own concerns but also of others. "There was an instance, during the time of Typhoon Yolanda, that one of the persons with autism said he wanted to donate toys and clothes," shares Dr. Ron Resurreccion, another team member.

Resurreccion adds, "Most people with autism enjoy things that we don't enjoy, like clerical jobs, like arranging things, and they will be happy doing it. That's their advantage. If companies can see what they can do, they will be a big help to industry."

Dr. Feorillo Petronilo Demeterio III, director of the University Research Coordination Office and likewise one of the research proponents, says that their study provides a benchmark for other companies on how to adopt a policy of inclusivity for the differently abled. While more and more corporations in other countries are beginning to be more sensitive about the conditions and capacities of this sector, not as many

are taking the same advocacy path in the Philippines. "We have advance policies in the Philippines, but the problem is the implementation. Many of the companies we looked into are not employing persons with disabilities at all. Meanwhile, those who do employ them are not compliant with the national policies," Demeterio adds.

For the research team, the study helps operationalize inclusivity in the workplace. By creating a space for work opportunities for persons who have cognitive limitations, Philippine companies will indeed discover that exceptionalities can also result in exceptional, inspiring work.

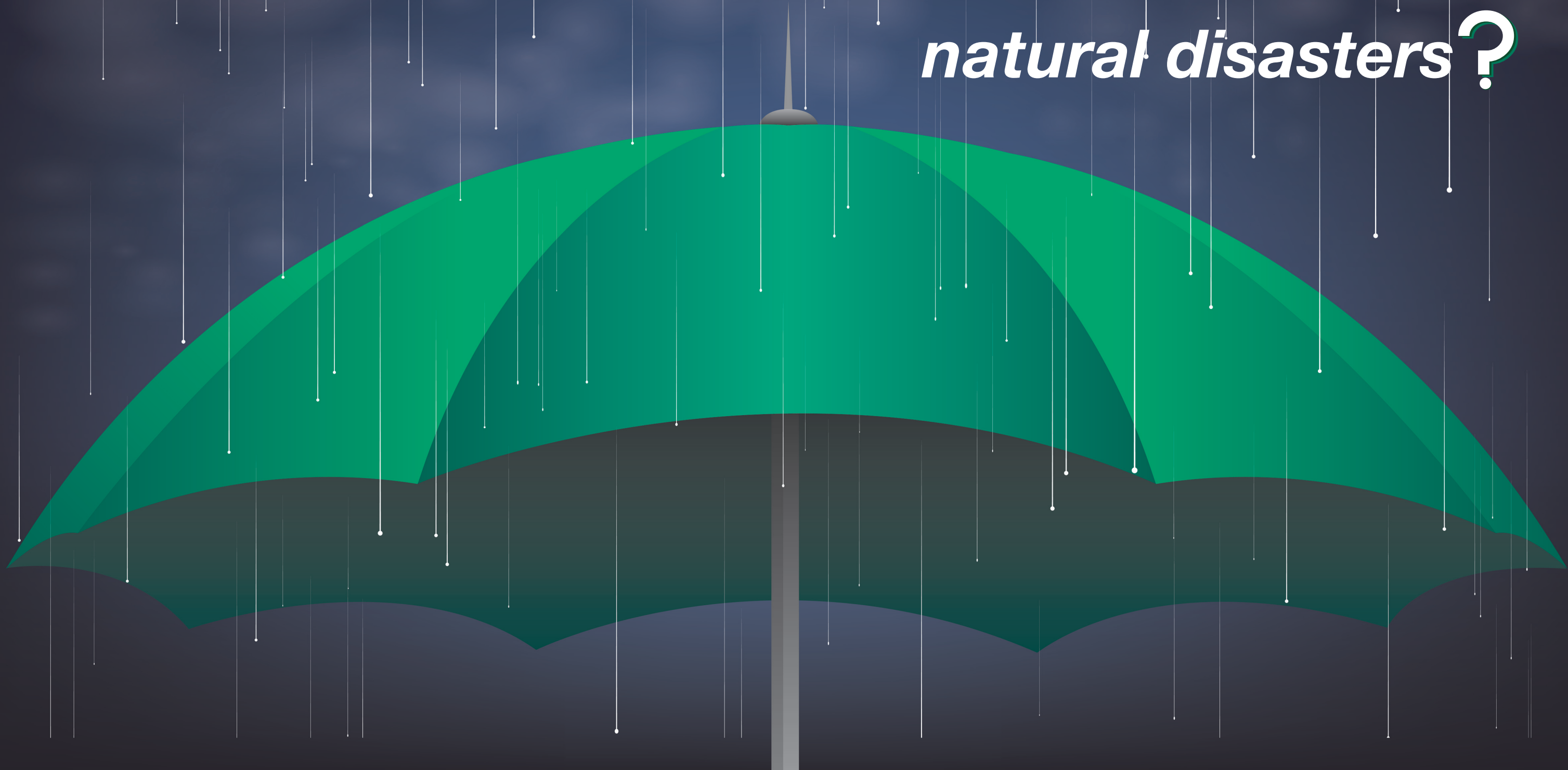
Dr. Roberto Javier, Jr. full professor of the Psychology Department, headed the research team that worked on this partnership project by the Unilab Foundation and the DLSU Social Development Research Center.

Team members: Dr. Feorillo Petronilo Demeterio III, Dr. Raymund Habaradas, Dr. Melvin Jabar, and Dr. Ron Resurreccion

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LGUs in disaster management

# *How do we weather natural disasters?*





*De La Salle University is helping local government units to understand the impacts of climate change, and to develop disaster risk reduction and management programs.*

With the passage of the Climate Change Act of 2009 and the Disaster Risk Reduction and Management (DRRM) Act of 2010, local government units (LGUs) are at the forefront of addressing the adverse impact of climate change and disaster risks. These laws mandate LGUs to develop and implement local climate change adaptation and DRRM into their development plans and programs.

While it is a key priority for LGUs to effectively implement these laws, most do not have the organizational capacity and technical resources to effectively fulfill their mandates. In the Province of Iloilo, however,

De La Salle University under the Sustainability Studies Program, with the support of the Commission on Higher Education Philippine Higher Education Network (CHEDPHERNET), embarked on a research project that seeks to study and address these issues.

The project leader, Dr. Francisco Magno, director of the Jessie M. Robredo Institute of Governance shares that the study seeks to examine the readiness of LGUs in Iloilo and their capacity to implement the National Disaster Risk Reduction and Management Act. The province was selected as it contained numerous river systems which proved ideal for developing disaster and

risk reduction management plans. With the addition of cross-boundary issues, local government units need to collaborate and develop partnerships with each other. However, data was needed to ascertain the needs and readiness of the province and, thus, the herculean effort of surveying 42 municipalities was made.



Magno

“We did a survey that targeted all the local government units. We found out that local government units lack certain capacities that are important in developing good disaster risk reduction plans,” Magno says. He notes that the LGUs lack the capacity to undertake participatory planning, vulnerability assessment, using maps--especially hazard maps that will be very important in doing their disaster management plans.

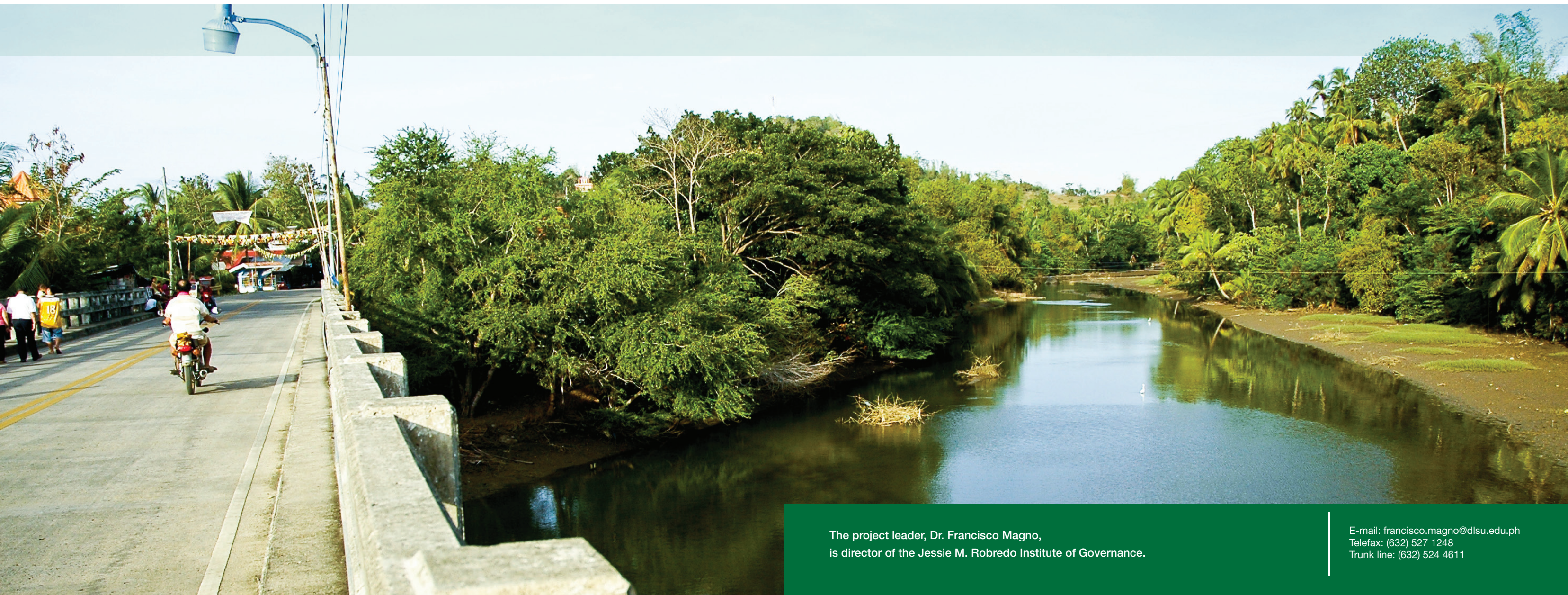
“They also indicated that they needed to strengthen their research skills precisely because local disaster risk reduction and management plans require a lot of data that will be important in developing very responsive plans,” said Magno.

After the surveys were made, the research team convened workshops which presented plans and grouped municipalities into clusters. As DLSU has local weather forecasting capabilities, it was discussed and taught in the workshops as well.

According to Magno, the next step for this effort is to teach the local government units on how to apply local weather forecasting systems. The research team also recommended to the different local government units to develop partnership arrangements as well as engage nearby universities as such institutions have the experience in both research and data collection key

components needed in properly executing local disaster risk reduction and management plans.

When asked if the research program would end in Iloilo, Magno revealed that the province is the first of a three-year study that will include provinces in both Luzon and Mindanao.



The project leader, Dr. Francisco Magno, is director of the Jessie M. Robredo Institute of Governance.

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History re-visited

What big stories are kept in this little paper?

Año 1

Sevilla 2 de Septiembre de 1888.

Num. 3.

# LA SOLIDARIDAD

ANARQUÍA

FEDERACIÓN

COLECTIVISMO

## PRECIOS DE SUSCRIPCIÓN

Una peseta al mes de suscripción en España  
 Una peseta al mes de suscripción en el extranjero  
 Una peseta al mes de suscripción en Ultramar

## DIRECCION

MARIANO CALLEJA  
 VIRIATO, 3.

## PRECIOS DE VENTA

Propaganda: 20 céntimos por línea por peseta  
 Número suelto: 5 céntimos

*On a journey through the history of Philippine journalism in the past two centuries, a DLSU History professor re-discovers La Solidaridad and stumbles upon some interesting notes about the prominent figures behind it, reminding us what history books tell, or hide, from us.*

De La Salle University History professor Dr. Jose Victor Torres, author of *Our Little Newspaper*, derives his paper's title from a quote from propagandist Marcelo Del Pilar in a letter to Dr. Jose Rizal, describing and announcing the first printing of La Solidaridad.

The modest description of La Solidaridad caught Torres' attention. "Considering the impact that La Solidaridad made on Philippine history, you would not think that it will be described in this manner," he observed.

Torres said that even though Del Pilar outwardly referred to La Solidaridad as "little," the pride in being able to come up with a newspaper was palpable in his letter to Rizal.

The paper, after all, would be a vehicle to promote the propagandists' ideas for reform.

Torres surmised that the reason La Solidaridad was called "little" was, literally, because of its size. At 8 inches by 11 inches, which was about the size of a short bond paper, it was small for a newspaper at the time. But even though it was smaller than the average tabloid or magazine, the ideas contained in La Solidaridad made up for its miniscule size. "It was still full of ideas," Torres offered. *Our Little Newspaper* comes from a chapter of a 200-year History of Philippine Journalism that Torres has been working on for almost 10 years.

"The La Solidaridad was just one chapter and the idea that I had for it was to include something new. We have always accepted that the La Solidaridad was a newspaper of the reform movement and it has always been in the background. Because of that, few people notice it—what it contains, its size, and how it looks. All we know is that it's La Solidaridad. We have seen black and white photos of it, but that is it."

For sources, Torres turned to Instituto Cervantes, an organization which initially funded his research on Spanish-era newspapers. When he later expanded his research to cover a later period, he made use of the archives at University of Santo Tomas, the Intramuros Administration, and the Philippine National Library.

His challenge was that sources had been mostly in Spanish, a language which he admits to having only a working knowledge of. Pay dirt hit when Bookmark published a coffee table book which translated to English the entire set of La Solidaridad. This, which Torres describes as "rich in detail and information," became a basis for his book.

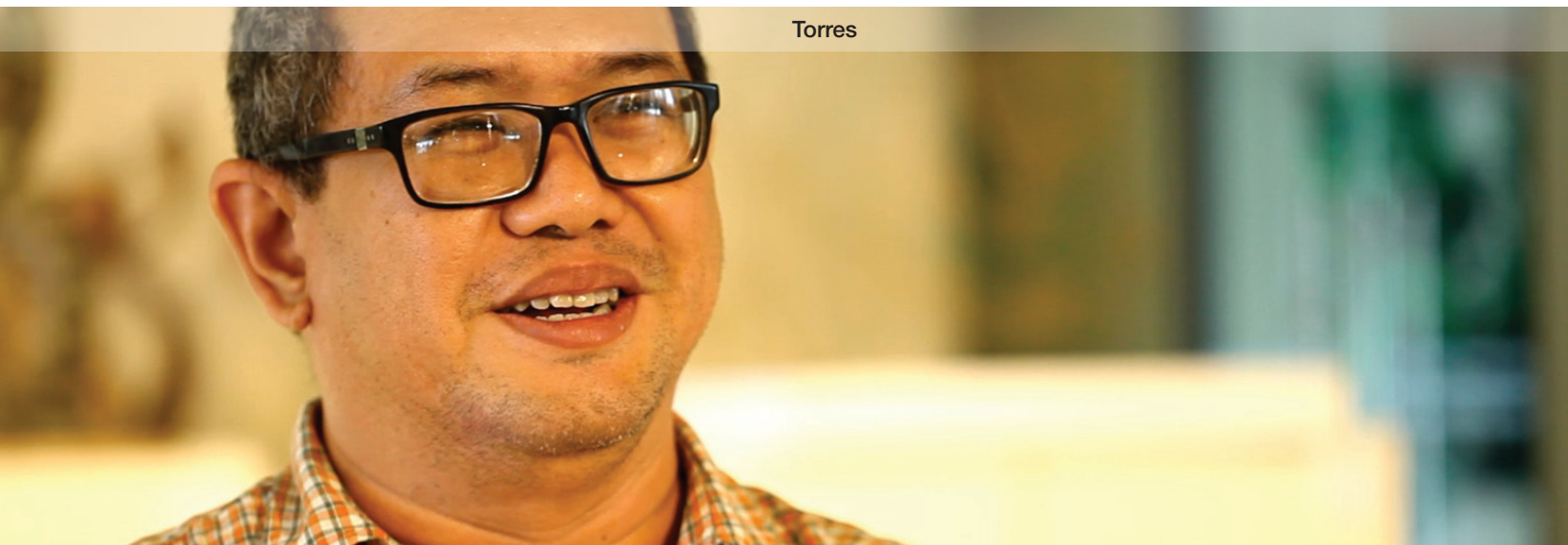
New facts he has discovered included that it was not Graciano Lopez Jaena who was La Solidaridad's first editor, as taught in many history books. Jaena, according to Torres, credited himself as editor although his involvement in the paper was not appreciated by other propagandists.

In Torres' book, letters exchanged between Rizal and Del Pilar revealed that Jaena was

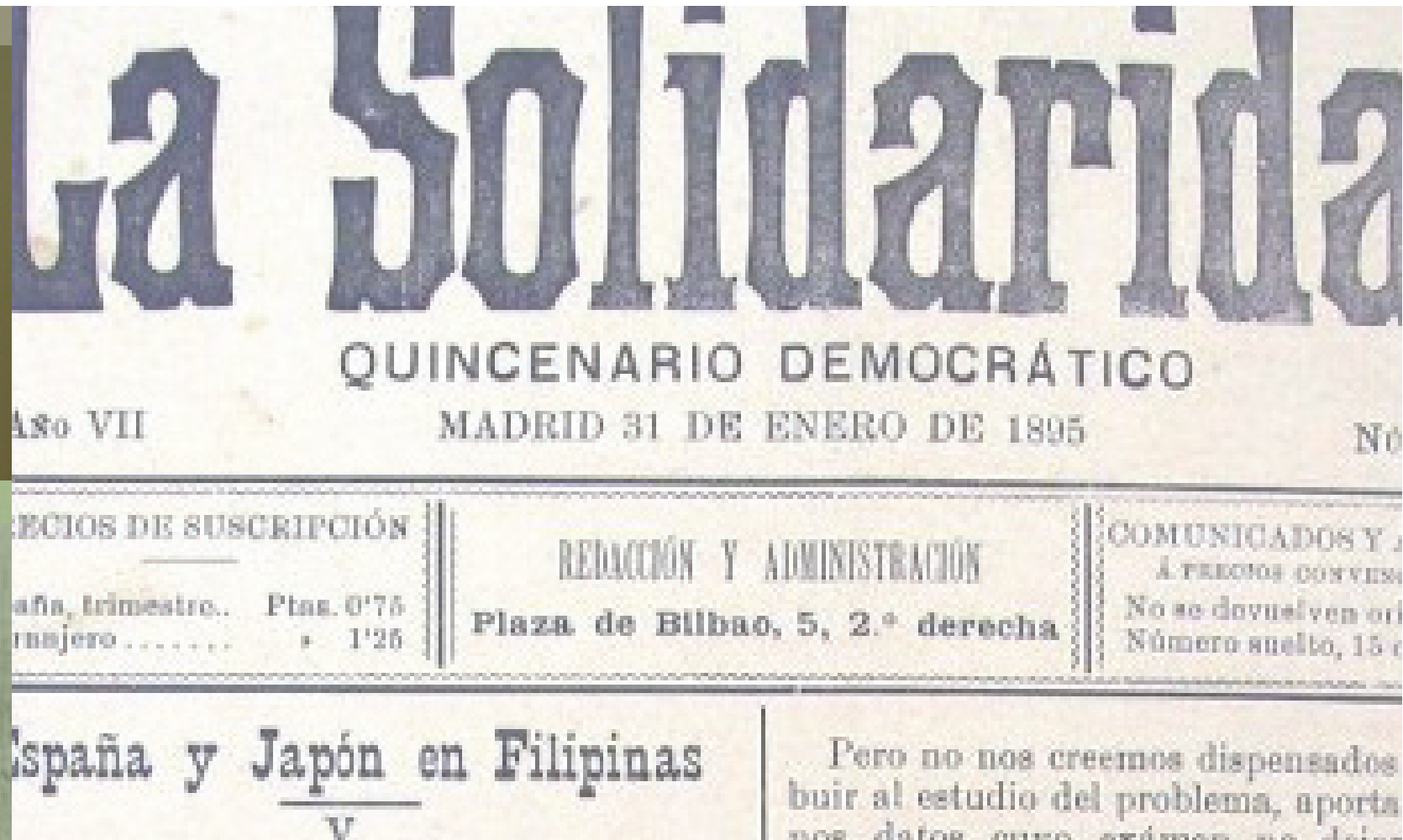
accused of mismanaging the paper, the consequences of which made Jaena let go of his post. When it was time to transfer the paper's base from Barcelona to Madrid, Jaena refused to leave the city and so Del Pilar took over. For Torres, it was Del Pilar who should be credited as the first editor. Another discovery, something that Torres said was contested at least once, was that Del Pilar was not the founder of La Solidaridad, rather it was Mariano Ponce: "How? One of the few bibliographies about the Philippine press written before World War II was by a Filipino-Spaniard archivist Manuel Artigas y Cuerva. His work was based on a memoir written by a member of the propaganda movement and financier of the La Solidaridad who surprisingly does not mention Del Pilar as among the

members who founded the paper. Instead, the person mentioned was Mariano Ponce. The same thing can also be deduced in the research of historian John Schumacher. Even though this is contested, the alternatives are simply not based on existing sources or documents."

To this, Torres stressed the importance of research: "I have always done research and research, for me, is a means to discover something new or to notice something that has not been noticed. I thought that it is high time that something is written about La Solidaridad. That is how this 'little newspaper' became a part of my research on Philippine journalism."



Torres



Dr. Jose Victor Torres is associate professor of the DLSU History Department.

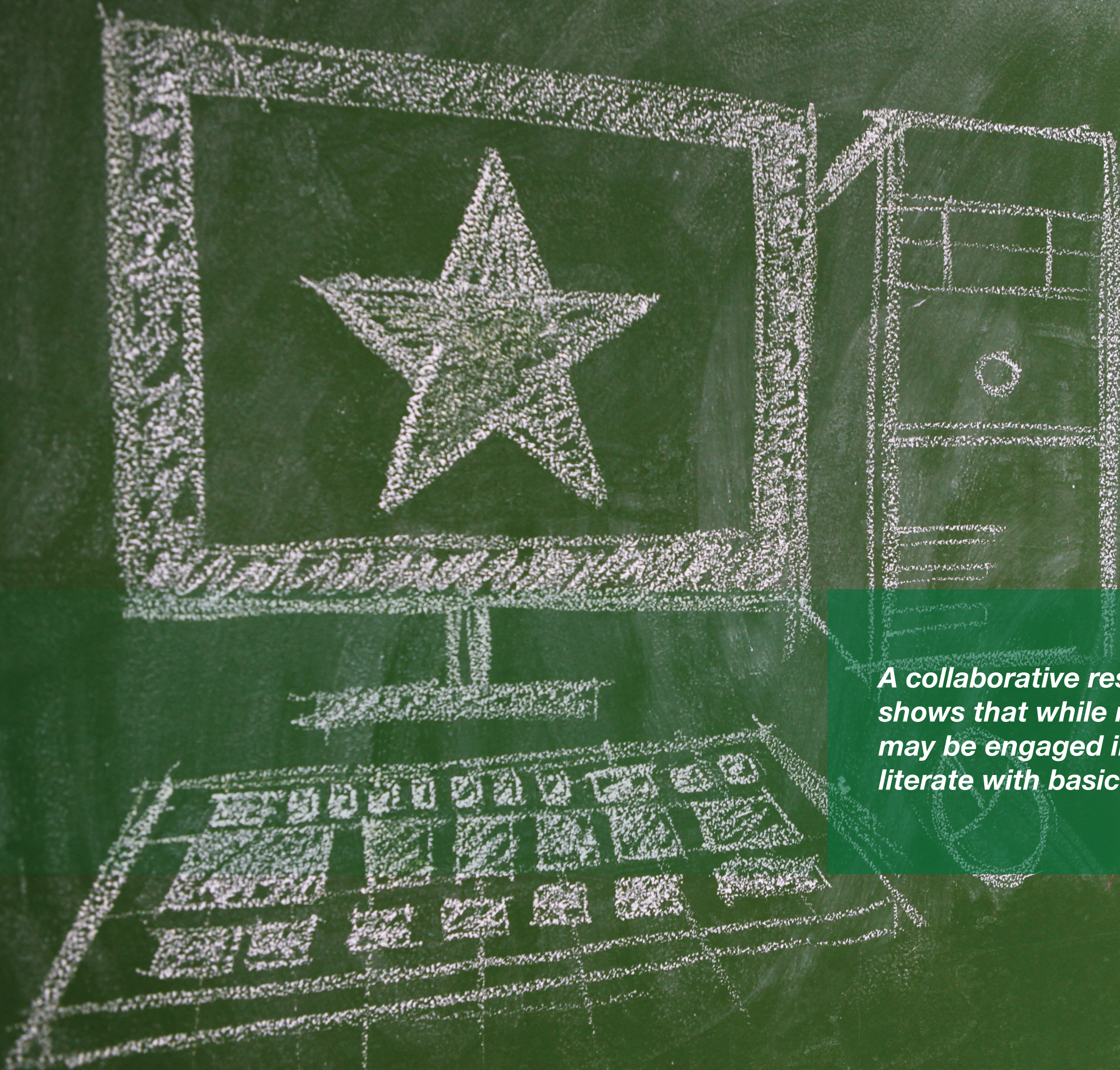
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E-learning in public schools

*Are our kids as  
tech-savvy as they  
seem?*





***A collaborative research by DLSU faculty members shows that while many pupils in public schools may be engaged in social media, most are not yet literate with basic computer and information technology.***



Nuncio

With the continuous development of computer technology and the growth of internet, it is surprising to hear that the Philippine basic education curriculum has no existing program for information and communication technology (ICT) education. There is no computer science or computer laboratory class except in well-endowed public schools and private schools.

This is what the team of Filipino Department Full Professor Dr. Rhoderick Nuncio and Department of English and Applied Linguistics Associate Professor Dr. Rochelle Lucas sought to answer through their project E-Learning outreach

program for Public Basic Education: An Action Research on Creating Knowledge Space, Learning Opportunities & Community Engagement for Public Elementary Pupils. The study is one of the recipients of the DLSU's Challenge Grant Research Project, a program designed to encourage collaboration among DLSU faculty to do projects aligned with the strategic research thrusts of the University.

The researchers' main objective was to emphasize the importance of ICT education and to introduce a program that can be used in line with the existing Department of Education curriculum. This need is underscored in the results of

the pretest that the team conducted in the three participating schools - Maximo Estrella Elementary School and Hen. Pio del Pilar Elementary School in Makati City; and Pulo Elementary School in Cabuyao, Laguna.

The pretest shows that though the pupils are familiar with online gaming or social media, e.g. Facebook, they do not know how to turn on and off a computer, connect to the internet or use basic office computer software. These pupils mostly access computers in internet cafes where gadgets are already prepared for their use.

To address this, they developed and introduced an ICT program and installed e-learning stations in the participating schools. The ICT program is composed of three modules – basic, intermediate, and advance. The basic module includes classes that will help the pupils familiarize themselves with computer hardware and peripherals. The intermediate module focuses on the importance of computer literacy and the fundamentals of Microsoft Office. Internet literacy and netiquette were introduced in the third module.

To truly engage the participants, the researchers held continuous dialogue with

the key people involved in the research. They also conducted an orientation for principals, parents, and pupils to give them a background on the project. At the end of the program, a post-test was done which showed that there was a significant improvement in the pupils' learning. It indicated that with structured learning, the pupils learned a lot because of the opportunities being presented to them. From zero knowledge, they were able to develop understanding of the basics of computer usage.

Nuncio shares that their next step is to train public school teachers because they

are important pillars in ICT education. The researchers will also provide the data they have gathered to the direct participants as well as to the DepEd and heads of ICT committees in government to aid them in policy formulation that would help revamp the country's education system.

Dr. Rhoderick Nuncio is a full professor of the Departamento ng Filipino. Faculty members who served as consultants to the eLearning Project were Myla Arcinas of Behavioral Science Department and Jasper Alontaga of the Educational and Leadership Management Department. Psychology graduate students Susan Grace Neri and Jose Mari Carpena served as research assistants.

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