



**DEVELOPMENT
IMPACT LAB**

A USAID Development Lab
Headquartered at UC Berkeley

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STATE OF THE LAB

Stories and Updates from the DIL Network

Innovation Beyond the Transcript



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The complex challenges of international development can only be addressed with solutions that are equally multifaceted. Going from innovative idea to project implementation demands a diverse set of skills. On University campuses, these skills have traditionally been delineated by academic department, but true innovation lies beyond the transcript.

The Development Impact Lab (DIL) recognizes and builds on this insight, capitalizing on the unique interests and backgrounds throughout the campus community to promote development initiatives. More than inter-disciplinary, the approach is also extra-disciplinary. Whether undergraduate, graduate student, or campus staff, DIL promotes the inclusion of passion, practice, and experience to build new constellations of campus collaborations within its technology for development (or, tech4dev) initiatives.

Bringing diagnostic equipment to health clinics in Vietnam

Drawn into development work while working for community development organizations in Philadelphia and D.C., Political Science major Anh-Thi Le joined the UC Berkeley Blum Center's Global Poverty and Practice minor to further her understanding of social justice. Two years into the program she found herself explaining the nuances of CellScope, a medical device that turns a smartphone into a diagnostic microscope, to health care practitioners in Hanoi Province, Vietnam.

A child of Vietnamese parents, Anh-Thi is fluent in Vietnamese, but her previous professional experiences lay in social innovation and community outreach, rather than technology, health, or engineering.

In essence, Anh-Thi was exactly what CellScope needed to complement their core



Anh-Thi worked from the campus, learning the ins and outs of CellScope's operations to help trouble-shoot during deployment of TB testing in 15 clinics in Vietnam.

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engineering team and to expand their services in Vietnam. Initially she wasn't convinced. "That was the first lab I had ever walked into. Initially I was nervous because I had never dealt with hardware and software." But, she adds, "I was passionate about their operation." Anh-Thi spent hours with the CellScope team, learning the ins and outs of the device, and then used her understanding to trouble-shoot its implementation over the phone with health care service providers in Vietnam. With time, she grew more confident, and recognized her role within DIL's CellScope initiative. "At the time they didn't need another specialist in global health or engineering. I was a good fit because I have a lot of experience working with diverse groups of people." By using her passions and personal experiences, Anh-Thi enabled



Agung Nugroho designed a business plan for VBTS, a low-cost telecommunications system.

CellScope's rollout in Vietnam while learning about the development innovation process. "It was a new experience for me, and there were a lot of obstacles that I learned about that I think I can apply to my future career. The experience has made me more confident."

Re-inventing cellphone coverage in Indonesia

On the north side of campus, Haas MBA student Agung Nugroho opened his Facebook account to discover that VBTS Technology (The Village Base Station) was seeking someone with business experience to assist with their project in Indonesia. VBTS produces cellular towers at a dramatically lower cost than traditional infrastructure, making them perfect for low-density, underserved, rural areas. A native of Indonesia, Agung had always been passionate about supporting development efforts in his home country. Additionally, he had experience working as a consultant for an Indonesian telecom company, providing him not only with valuable insider perspectives of the market, but also many contacts in the industry. Agung immediately saw how he could fill a critical gap within the VBTS Technology's innovation team. "I wanted to get involved in development, and promote technology for development. I met all the requirements, the project needed me and I had an interest in the project as well."

The VBTS initiative already had incredible engineering, infrastructure and computer science talent on their team, as well as a successful pilot in Papua, Indonesia, under their belt. Still, they knew they needed another perspective for the next step of their project. "They had a great result from the pilot in Papua," explained Agung, "but they lacked a business perspective. My job was to build a commercialization plan for the company." Agung swiftly released the benefits of collaborative work in the development innovation field: "There is a gap in the engineering field for business analysis and market assessment. What works from a technical perspective might not be applicable in the business situation because of things like regulatory constraints or applicability factors." Despite his lack of technical engineering experience, by combining his local knowledge, experience, passion, and MBA coursework, Agung proved a necessary ingredient to the project implementation process for the product of a team of engineers.



The VBTS team works to install a system in rural Papua. Unlike other telecommunications infrastructure, VBTS does not require multiple connections or expensive equipment.

Increasing rural energy access in India and Kenya

As the Partnerships Manager for CEGA, an international development center at UC Berkeley, Carson Christiano spends her days facilitating relationships between organizations, academics, and international affiliates in the promotion of international development. Despite her already demanding job, when she heard about DIL's electrification initiatives in Kenya and India, she immediately wanted to get involved. "My expertise since graduate



A line-up of batteries for rural electrification. Since joining the project, Carson has made several trips to the field to work with various stakeholders.

school has been on impact evaluation. But my previous work in Kenya with International Poverty Action, and at the Public Policy school at UC Berkeley were both very interdisciplinary. So, when we talked about the energy program in Kenya and India, it seemed like a natural fit for me to step in and help coordinate between social scientists and government and private partners."

Indeed the project involved many actors and complex considerations. In Kenya, the DIL initiative aimed to make access to already available electrical infrastructure more affordable for rural citizens. In India, the team was installing economically

sustainable solar-electric infrastructure in remote areas without prior electricity grids. Carson worked to navigate relationships with the many stakeholders, from government supporters to for-profit start-up partners, all amidst two very different project contexts. Her main role was to "maintain the quality of a rigorous research design while also accommodating the very specific needs of a for-profit enterprise and a government enterprise." Though the experience reached beyond her own background, the project taught her a lot, and she was able to contribute in unique and valuable ways, "I had no experience with rural electricity and generation," she admitted. "But I love fieldwork. It's been a real benefit to me to have that experience and keep one foot in the field. It also benefits my ability in my other work for DIL and CEGA when trying to design programs."

The world is a complex place, and DIL recognizes that successful development innovation captures this diversity. Across the UC Berkeley campus, DIL demands a rethinking of development innovation projects to include not only the question of "What's your discipline?" but, perhaps more importantly, to ask "What's your passion?" Along with the Big Ideas@Berkeley student innovation competition and other experience-driven programs, Idea Labs, and other experience-driven programs, DIL reaches out into the community to draw passionate, skilled people into DIL projects. This exchange of skills enriches the projects, the participants, and the development innovation community.



Carson Christiano visits a solar microgrid site in rural Nyanza Province, Kenya, with an IPA field manager and a village elder.