Viewpoint
Lost in Afghanistan: Can the World Take ICT4D Seriously?

Seeking to maximize the value of information and communication technologies for development research.

IN AUGUST 2021, I was reading Lt. Gen. Sami Sadat's article in the *NY Times*,[24] and it reminded me of the lyrics of Billy Hill's song: "I tried and I tried and I tried and I tried. To make them understand. I tried and I tried and I tried and I tried. But they just can't understand." Like any other Pashtun, I also consider Afghanistan my "Loy Kor" or "Greater Homeland." Therefore, the early days of Afghanistan's fall were full of terrible surprises. There are many more questions in my mind than answers; consequently, it is normal to reflect on the situation from my own academic and professional background in information and communication technologies for development (ICT4D) and computer-human interaction (CHI).

ICT4D is an interdisciplinary field that has emerged in the 1990s when mobile phones, PCs, and Web services became cheaper and accessible in developing countries, and governments and international organizations heavily funded ICT-based initiatives as the tools for achieving development goals.[7] In the early days, ICT4D research and practices were influenced by the technology diffusion models and overlooked the integration of co-design and factors of social embeddedness of ICTs, and therefore failed to contribute toward the achievement of inclusive development.[16] However, the lessons

An Afghan policeman sits near private cellphone antenna in Kandahar, Afghanistan.

learned are well documented and have led to developing specific guidelines and new watchwords.[4] Based on my academic and ethnic background and recent fieldwork in the northwest part of Pakistan, I present my reflections on the Afghanistan fiasco in this Viewpoint. Following the sutra of effective communication,[20] I restrict my reflections to three main points.

The imperative of a defined exit strategy. The U.S. did not have an exit strategy for withdrawal from Afghanistan. In December 2018, the Taliban announced their meeting with U.S. officials to find a "roadmap to peace" but refused to hold official talks with the Afghan government.[3] The U.S. government subsequently signed the Agreement for Bringing Peace to Afghanistan (2020) and made the situation worse by not making the Afghan government (their own ally) a party to the agreement.[29]

The CHI and ICT4D community has extensively highlighted the importance of a responsible exit strategy for avoiding software and hardware suppliers' hostage situations,[6,11,27] maintaining the secrecy and confidentiality of vulnerable populations,[13] establishing the

participants' willingness and capability for taking over the project,[9] and controlling the dependencies and expectations of the stakeholders.[12] Luke Jordan, in his recent guidebook (which I think is a must-read for anyone in the field of ICT4D), says, "a product that looks wildly different at the end than at the beginning could mean a terrible starting point."[21] Carl Gunnstam and Carl Johan Nordquist highlighted the need for an exit strategy in ICT4D interventions. They reported, "a well-designed exit plan that is agreed upon by all stakeholders diminishes the risk that the project is untimely abandoned by a stakeholder, and thereby increases the likelihood of a sustainable project."[15]

In 2016, during my field study in the forests of Malaysian Borneo, an indigenous Penan village headman explained to me some important aspects of "Smart Villages," including the need to engage partners from the early stages of the project's planning to discuss the long-term sustainability of the interventions.[31] While the Penans are more concerned about the health and safety implications of non-functioning solar-powered batteries of the telecenter project, an Afghan artist sent 20 tons of rubbish collected from Bagram airbase, labeling it as art and "A gift to the American people."[5]

Open source software (OSS) vs. proprietary software. It was shocking to learn that as soon as the U.S. troops started to withdraw, the U.S.-hired contractors took proprietary software and weapons systems with them.[14] By July 2021, most of the 17,000 contractors had left, and with them, access to the software which the Afghan Army relied on to track their vehicles, weapons, and personnel also disappeared. As a result, the whole food and ammunition supply system collapsed.

In January 2004, the Swedish International Development Cooperation Agency (SIDA) published a report on open source technologies in developing countries, highlighting the use of OSS to assert security and economic independence for developing countries.[30] The report states, "the imperative to adopt OSS in these countries, particularly in the public sector, is also motivated by a desire for independence, a drive for security and autonomy, and to address intellectual property rights enforcement."

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Local solutions and frugal design. Sadat revealed the Taliban fought with snipers and improvised explosive devices while we lost aerial and laser-guided weapon capacity.[24] The Afghan forces' supply lines depended on private contractors and their tools. Therefore, when the private contractors suddenly departed, the Afghan soldiers lacked the necessary tools to fight and surrendered.[8]

During the Cold War, the U.S. and Mujahideen heavily relied on an indigenous arms manufacturing industry of Pakistani Tribal areas that has existed for hundreds of years.[18] However, during the War on Terror, the Taliban developed professional gunsmith skills to design and manufacture improvised weaponry from locally available material scrap, auto parts, and obsolete weapons.[2] On the other hand, the Afghan Army relied heavily on advanced technology, complex logistics, and airpower, which it could not sustain independently.

The first essential reading for my undergraduate students of human-computer interaction is Bonnie Nardi's article, "Designing for the Future: But Which One?"[23] Nardi emphasized the notion of a Steampunk future derived from a past in which people exerted personal control over material culture. Nardi also reports the values of the Steampunk movement, which are: recycling materials, finding other functions for objects, expanding horizons, and regaining control over the fabrication of our everyday objects. As they say,

context is the king: I use Nardi's article to open a debate on relating the computing students' preferences of hard and soft skills; the importance of local, social, indigenous, and cultural context; civic engagement; and the societal challenges of past, present, and future.

In the last 70 years, the "third world" or "global south" has been bombarded with "development theories" and international development agencies to put these countries through a "Western route to development." However, they have failed to bring positive changes in the lives of the target populations.[1,17] In CHI and ICT4D fields, a decade ago, postcolonial computing was introduced[19] to examine and address the lack of cross-cultural sensitivity in the design "for the developing world." However, postcolonial theories have been chastised for failing to include marginalized viewpoints and are considered "Eurocentric critiques of Eurocentrism."[1] To break the "colonized mind-set," Schultz suggests embracing plurality in design and development by including the marginalized perspectives (that is, marginalized immigrants, indigenous communities and the global-south populations).[25] Therefore, the decolonial perspective in ICT4D strongly echoed notions of pluriversal design,[10,22] creating a multiplicity of voices and valuing local knowledge and inclusive participation. Western governments fund ICT4D research[26,28] and Western academics are heavily represented and among the most active participants in generating useful knowledge in ICT4D. Academic conferences and literature are widely expected to produce networking and knowledge exchange between academics, policymakers and industry players. However, there is only piecemeal evidence of ICT4D research informing policymaking and practices despite the presence of very loud voices and research pieces of evidence. The ICT4D researchers failed to understand the non-academic audiences' state of mind. One explanation for this failure is the cognitive bias, which the psychologist Steven Pinker has termed as "the curse of knowledge." Here, I provide two recommendations to maximize the value of ICT4D research. First, ICT4D researchers can

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curb the curse of knowledge by developing four critical skills:

▸ Being able to understand the political process and identify key stakeholders;

▸ Being able to synthesize research findings with simple, compelling stories;

▸ Being a good networker; and

▸ Being able to connect and align all these factors in an institutional setup.

Second, the objectives of ICT4D conferences should include deliberate retrospection of the learning experiences, critical analysis of the existing development practices, and shaping the post-research development agenda to demonstrate the practical benefit of the ICT4D research.

The case of the defeat in Afghanistan is the most recent example of not listening to the experiences of the research community and learning from past mistakes. It again reminds me of Billy Hill's: "I tried and I tried and I tried and I tried/ But they just can't understand/Poor God, people/When will they ever learn?" ▣

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