The Kochia Chronicles

Systemic Challenges and the Foundations of Social Innovation

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Introduction

The Kochia Chronicles, by Khanjan Mehta, provides a fascinating glimpse into the culture and interpersonal relationships of a fictitious, though very representative, community in Western Kenya near the shores of Lake Victoria. Through the medium of story-telling, Mehta gives a voice to the community partners that many of us who are actively involved in international service learning projects will rarely have the opportunity to hear. The stories are extremely well written and enjoyable to read. For students or faculty who have never travelled to sub-Saharan Africa, these stories provide an excellent point of entry that should lead to a better understanding of the challenges facing communities in this region. More importantly, they also possess a richness and depth that will provide those with extensive experience working and travelling in the region with plenty to think about.

From the perspective of international service learning in engineering (ISLE), the primary value of this work seems to lie in support of three major thrusts: (1) preparing students to participate in ISLE programs, (2) laying the foundation for professional growth (both immediate and future), and (3) assisting students in reflective processing after ISLE experiences. The focus on students does not imply a bias towards student impacts over and above the interests of community partners. The motivation for this approach is rooted in the belief that well-prepared students, from both a technical and socio-cultural perspective, are absolutely necessary if the service learning model is going to affect the positive change it aspires to.

Student Preparation

Mehta's preface offers a succinct summary of the fundamental challenge facing the service learning model: "...good intentions and passions are not enough. While [these] projects are usually well-meaning, creatively designed, and enthusiastically deployed, they do not necessarily result in sustainable impact for partnering communities." The final story in the series "Mzungu Memories: A conversation over Busaa" provides multiple examples of mzungu efforts that were ultimately misguided. One story involves an NGO that happily spends the equivalent of 70,000 USD on assessment and new furniture for a field office but refuses to support a modest community initiated solar project at the level of 500 USD. Another describes a well-meaning church group that upsets a local coffee market in an attempt to support local farmers by exporting coffee back to the US. Things seem to go well until the leader of the group on the US side passes away and the export market suddenly collapses. In another story, a team of US students set out to implement a latrine project. From two female students digging the pit in a public place "wearing short pants that failed to reach the ends of their backsides and ... tiny

blouses that left little to the imagination” to the final revelation that operating the latrine will require manual removal of the human waste, the team seems bent towards offending local senses. Mehta identifies this lack of consideration of local culture and the failure of wazungu to incorporate local knowledge into project planning as a key factor working against sustainable impact.

I have often wondered whether or not students who had a better understanding of how difficult it is to achieve the objectives of our projects might just choose to stay home. If we aren’t going to stay home, how do we temper their much-needed enthusiasm and significant creativity with the empathy and respect for another’s culture that is sorely needed? There are two factors that make this problem potentially more vexing when engineering is involved. First, engineering, at least how we typically approach it in a university setting at the undergraduate level, requires students to focus like a laser on narrowly defined problems or issues. In an international development context, the engineering worldview translates quickly into reductionist statements like “if only this village had a clean water supply, that village a school, and that village access to reliable health care, everything else would be so much easier...” Dissolution of the apparent poverty is bound to follow. ISLE programs that operate under this mindset are probably going to be implemented poorly and without the integration of local knowledge and culture. When time runs short and budgets get tight, which they always do, the needs of the “project” will tend to dominate. Even though these programs may still be wrapped in the language of “sustainable design” or “appropriate technology”, cultural matters do not receive the attention they require.

Mehta’s stories go a long way towards breaking this tendency in the engineering mindset. Like all good stories, they work their way into a conversation that anyone can participate in. By revealing his characters’ values in an accessible format, readers have the opportunity to appreciate them as they are. Readers might hold those values up to their own and search for common ground. The Kochia Chronicles don’t appear to be designed to provide students with instant access to the specific cultural competencies they will need to implement successful ISLE programs in East Africa (although I would ask all of my students to pay special attention to the lessons learned surrounding appropriate dress). Instead, they provide the foundation for a conversation. From this conversation, the cultural competencies they need might begin to evolve on their own.

The second factor that inhibits the development of respect for host community partners relates to specific imagery that is used for fund-raising around ISLE efforts. For water projects, it is the small child waste deep in turbid water with a half-submerged jerry can. For solar power projects, it is the group of middle school students huddled tightly around a dim kerosene lantern doing homework. For sanitation projects, it is the open sewer flowing freely down the center of an urban thoroughfare. As real as these images are, they do not begin to capture the strength and resiliency of the people and culture they try to portray.

Mehta’s stories provide a stark contrast to these images. These characters are hardly portrayed as waiting in desperation for the next group of wazungu to pass through town. It is actually quite the opposite, and the ingenuity of these characters is highlighted repeatedly. Their resilience, patience, and determination left me with a sense of humility and the almost painful conclusion that I really have very little to offer them. Maybe, if I am lucky, I might have the opportunity to work beside them as they solve their problems. Perhaps lending a hand, but ultimately learning from them along the way.

A Foundation for Professional Growth

A useful framework for understanding the contribution of The Kochia Chronicles towards the professional growth of students is provided by William May¹:

The professional's covenant, in my judgment, opens out in three directions that help distinguish professionals from careerists: the professional professes something (a body of knowledge and experience); on behalf of someone (or some institution); and in the setting of colleagues.

ISLE supports the first direction by providing students with an active learning environment to develop the body of knowledge that they will someday profess. The third direction is also supported by ISLE as students are required to engage their colleagues across a broad spectrum of environments under a variety of circumstances (many of them very stressful!). Traditional co-curricular activities, like participation in student chapter competitions organized by professional organizations (e.g. ASCE's concrete canoe and steel bridge), provide a similar context for professional growth in these two directions.

The middle direction, *on behalf of someone*, is where ISLE naturally distinguishes itself from other professional development opportunities for students. Furthermore, it is the direct connection between students and host community partners that seems to provide the greatest impact. In order for these relationships to be authentic, as opposed to exploitive, students must adopt an attitude that is oriented towards collaboration and remain open to the reality that they have much to learn about their community partners and the significance of the social structures that exist. Developing this orientation is a process, and it is questionable whether any contrived student preparation program for ISLE experiences can accomplish this transformation entirely on its own. The stories of The Kochia Chronicles, however, provide an excellent foundation for introducing this key element of professionalism to students. Students will have the opportunity to explore various challenges related to international development through the eyes of characters who are directly affected by these challenges as well as the attempts of outsiders make improvements. After processing the events of these stories, students will be in a much better position to envision their own role in ISLE programs and consider the implications, both positive and negative, of their intended actions.

Student Reflection

Facilitating student reflection on personal experiences, in a formal sense, is not something that engineering faculty are trained to do. Experiential learning theory identifies reflection as one of four critical components to the learning process. Having students record and reflect on their experiences through journaling during an ISLE experience is a common practice, and many of my own students have reported a new found appreciation for the process after first being "required" to do this. Conversations that occur between students after journaling also seem to be richer as students are better prepared to articulate their own emotions and respond thoughtfully to the emotions of their colleagues.

The Kochia Chronicles are an excellent resource to help guide students' reflections on ISLE experiences towards the impact their ventures may ultimately have on community partners. Journaling tends to focus more on how events may have impacted the writer, and considering how these events have unfolded from the vantage point of someone else at least requires a framework or starting point for the dialog. Students have an authentic framework for this dialog with their peers, but, even though they have spent time with their community partners and worked alongside of them for a short period of time, they aren't necessarily prepared for deeper reflections on the relationships they have developed. Combining the ISLE experience with later reflection on The Kochia Chronicles will allow students to reimagine, and possibly question, the impacts of their efforts as well as provide additional context for

reinterpreting specific events or details. At the very least, these stories will reconnect students with their ISLE experience and, hopefully, continue to shape and influence their personal and professional development.

Conclusion

Any engineer who engages in ISLE for an extended period will likely realize that the knowledge they profess as an engineer is insufficient. This should apply equally to faculty and students. Efforts to address the socio-cultural aspects of community-based international development projects might lead one towards the social sciences for guidance. This is certainly appropriate, and the technical side of these fields can even feel comfortable for anyone with a background in math. The danger of this approach, however, is that, as engineers, we engage these fields of study seeking insights that will lead directly to solutions. Without a shift in orientation from *solutions* to *process* that places a greater emphasis on local capacity and indigenous knowledge, the colorful conversations over busaa will continue. Giving students and faculty the opportunity to imagine how that next story will be written is what makes The Kochia Chronicles such a valuable resource.

References

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