Auditing ISITI's Intangible Assets
Uncovering our tacit knowledge about community-based ICT4D projects

Introduction

As a research institute, ISITI generates a great deal of knowledge about the topic area that is its focus; using Information and Communication Technologies (ICTs) for development within remote and isolated indigenous communities throughout Malaysia. Usually this knowledge is captured and shared through the conventional academic processes of conferences and peer-reviewed journals. However, throughout the research processes of formulating theories and collecting and analyzing data, researchers accumulate a considerable amount of other, contextual, knowledge that is not always recorded in the formal research outputs. This knowledge relates to the experiences and observations that they undergo during their encounters with the communities with whom they are conducting their research. It is often personal and it is often taken for granted that researchers will have it and will be able to use it effectively as they proceed with their research enquiries. Unfortunately, though, this is not always the case. There is a learning curve to climb in understanding the various aspects of the context within which research is conducted. Some will climb that curve quickly and easily whilst others will struggle. Why is this important?

Socio-Technical Systems

Socio-technical systems design is an approach to the design of information systems in organizations that recognizes the importance of the interaction between people and technology in workplaces within the complexities of organizational work design. The term also refers to the interaction between society's complex infrastructures and human behaviour. The principles apply equally well in the design of information systems for communities. To illustrate how this works, the observation has been made that a particular ICT-based information system can work well in one organisation but not in another. As the technologies are the same, the causes of failure have to be attributable to factors within the organisation.

Accordingly, for system success to be assured, analysts and implementers should take account of the social, human and organisation factors of the organisation. Again, the same can be argued for the implementation of information systems in communities. A socio-technical approach to system development therefore leads to systems that are more acceptable to end users and that deliver better value to stakeholders.

As one observer puts it "the essence of ICT4D is not technological but social; the emphasis should be on the "C" and the "D" instead of the "I" and the "T."

The alternative techno-centric approach to systems design, it is said, does not properly consider the complex relationships between the organisation (community), the people enacting business (social) processes and the system that supports these processes. Despite this, as intuitive as the socio-technical approach may sound, there are still many who support a more techno-centric approach to technology deployment and these include major institutions such as the international multi-lateral development agencies, global technology corporations and government institutions. For example, Facebook's massive failure in delivering free internet to India typifies where techno-centric approaches can lead. As technologist Anil Dash told Mark Zuckerberg why Free Basics is probably the wrong approach for Facebook in India; "Internet.org may be a fundamentally wrong structure for delivering these kinds of services because it doesn't empower people to create solutions for themselves that are culturally and contextually appropriate".

Context Rules

Among the proponents of the socio-technical approach to the design and implementation of information systems, it is often said that "context is king." This means that the context within which a system is inserted will always play a fundamental role in determining the outcome. There are many examples of superior technologies that exhibited promise for world-beating dominance but which ended up on the scrap heap because society rejected them. For example, in the videotape format war of the 1970s, Betamax was, in theory, a superior recording format over VHS, but it lost out because Sony did not take into account what consumers wanted. Conversely, we can point to sub-optimal technologies that took off with a bang because they matched closely with what people wanted. Many computer specialists praise the Apple Macintosh as a far superior device than a Windows-based PC, yet Apple has captured less than 10% of the PC market. The reason is argued to be concerned with the standardized and open nature of Windows based PCs that gave users more choices when selecting software and greater ease in sharing files between computers.

If context is king therefore, the path to success with information systems lies in attaining a thorough understanding of it. It is for this reason that much of the work that ISITI conducts with its client communities is based on ethnographic and anthropological approaches. We go to considerable lengths to understand the social and economic profiles of communities before we begin to discuss how ICTs might contribute to their development. In this way, communities are facilitated towards uses of computers and the internet that accord with their own choices and priorities for local development.

The Context of our Work

Knowledge in ISITI

In ISITI, the contextual knowledge of our community-based ICT interventions is most often tacit. It goes largely un-recorded in our research reports and has not been systematically organised in a manner that would facilitate sharing among colleagues and others. Yet it is crucial to achieving desirable outcomes from the interactions and interventions that we have with our partner communities.

The following displays a depiction of the contextual knowledge that we have accumulated in our work. We need to be familiar with this in order to continue achieving impact in our partner communities.

Our Knowledge of the Context of our Work

Culture

Habits Art Rituals Dance Food Stories Architecture Song Celebrations Traditions Protocols Language History Music Clothes Heritagesites Family Practices Taboos

Politics

Obedience Social-structure Human-rights Influence External-influences Loyalty Decision-making Hierarchy Blind-faith

Infrastructure

Media Helipad TV Transport Education Water Newspapers Connectivity Buildings Cellular-coverage Communication Health Electricity Radio Sanitation Roads Airport Paths

Lifestyle

Disinterest Hierarchy Interactions Humility Work-schedule Social-norms Self-interest Motivation Resilience Behaviour

Demographics

Ethnicity Patriarchal/matriarchal Religion Occupations Education Populationsize Income Age Gender

Relationships

Harmony Secrecy Punctuality Genealogy Family-orientation Trust Respect-for-elders Decision-making Gender-equality Responsibility Marriage Filial-piety Class

Environment

Resources Buildings Forests Highlands River Signage Weather Accessibility Landmarks Topology Borders Natural Boundaries Location Salt

Institutions

Bank Clinic Restaurants UNIMAS Credit-union Police Corporations Places-of-worship Post-office Local-Government School Army NGOs-civil-society Local-societies Retailers JKKK

Economy

Trading Government gathering agencies Incomesources Businesses Agriculture Logging Plantations Fishing Hunting Forest