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University-Community Engagement and the Role of ICT for Development Initiatives

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ABSTRACT

There has been increasing interest in university-community engagement, and the various aspects to be considered in implementing initiatives to support the engagement. This paper explores a university's formal engagement at the institutional level with two neighbouring communities, and the role of information and communication technologies in these initiatives. Through content analysis of focus group discussions, themes are identified which may be useful to universities and communities in planning and implementing ICT for development initiatives to support university-community partnerships.

Keywords: university-community engagement, information and communication technologies, development

INTRODUCTION

With increasing focus on university-community engagement initiatives; there has been interest in exploring various aspects including the design, implementation and evaluation of various types of partnerships. There have been calls for research for deeper investigation into the related policies and practices that support successful university-community engagement, along with an exploration of questions related to decisions on which initiatives will best reflect the inherent mandate of social responsibility and development (Akpan, Minkley, & Thakrar, 2012; Humphrey, 2013).

This article explores the role of information and communication technologies (ICTs) in the development of two communities in which a university is engaged. Our research questions examine 1) the use of ICTs by community members in these communities; 2) the use of a telecentre (community access point/ community technology centre) that is run by the university in one of the communities; and 3) the role of ICTs in the interface between the university and community members.

The paper proceeds as follows: in the next section we review related literature. The research context and methodology are then outlined, followed by the findings and discussion. The paper concludes with implications for practice and future research.

RELATED LITERATURE

University-community engagement has been seen as beneficial to both the university and related communities through areas such as support to community development, and the increase in diversity of students and education options. While there continues to be much variation and some debate on the definition of university-community engagement and the complexities associated with its implementation (Farrar & Taylor, 2009), university-community engagement continues to be a central pillar of many universities' strategic plans. As university-community engagement increases globally, there have been discussions on the meaning of this engagement, the socio-economic contexts in which the universities and communities interact (Winter, Wiseman & Muirhead, 2006), the direction (whether university to community or community to university or both) (Weerts & Sandmann, 2008) and ownership of these initiatives (Bruning, McGrew & Cooper, 2006). Further, there are discussions on the methods for assessing and evaluating university-community engagement (Garlick & Langworthy, 2008; Hart & Northmore, 2011). Mulroy (2004) highlights factors which influenced the successful engagement with communities by universities using different models of university-community partnerships. These models and frameworks could be further developed by the application of various theories which may guide universities and communities as they work towards desired outcomes of the engagement (Ostrander, 2004; Strier, 2011).

University-community engagement initiatives can take the form of structured projects at the institutional level or interactions at the individual or group level by faculty and students (Ibáñez-Carrasco, F., & Riaño-Alcalá, 2011; Mulroy, 2004) in the form of projects related to

community development initiatives including combinations of farming, health, information and communication technologies, parenting and a range of other initiatives (Bailey & Ngwenyama, 2013; de la Harpe, Lotriet, Pottas & Korpela, 2012; Pineda, 2012; Wood & Dodd, 2010). This transdisciplinary nature of university-community engagement is highlighted by Kroeze & van Zyl (2014).

It has been highlighted that further discussion of the role of ICT for development initiatives in university-community partnerships would be useful (Wood & Dodd, 2010). There has been little discussion of ICT4D initiatives that have been formally included as part of university-community engagement plans. One of these noted in the literature includes the sharing of university ICT resources for the purposes of community mapping through geographic information systems (Krouk, Pitkin & Richman, 2000). Other university-community based partnerships involving ICTs have been discussed in the literature. (Harris, 2002; Pinkett, 2002). Another initiative described in the literature involved exploring bridging the digital divide through service learning partnerships in training and the attempt to establish a community technology centre as part of university-community engagement initiatives (Gilbert & Masucci, 2004).

RESEARCH CONTEXT AND METHODOLOGY

Research Context

The study was conducted in two communities which are geographically close to a university in Kingston, Jamaica. Community A and Community B have historically been underserved communities with very youthful populations. Both geographical areas have been in existence for more than 40 years. Table 1 illustrates some characteristics of these two communities. Both communities share similar characteristics but only Community A has had several years of purposeful engagement with the University. Community B on the other hand has been a focus of the University since 2012 and unlike Community A has experienced rigorous research engagement for the purpose of guiding its development. Many of the characteristics outlined in Table 1 are drawn from quantitative research studies done at different periods in the communities.

Table 1 Summary of Characteristics of Communities A and B

Community A	Community B
<ul style="list-style-type: none"> • Average household size 3.85 • High unemployment levels amongst adults and youth • Approximate population size: 7007 (2011) • At least 10 community based organizations • Several sporting organizations 	<ul style="list-style-type: none"> • Average household size 3.85 • High youth unemployment • Approximate population size: 1200 (2013) • Community steering committee • No sporting organization

In Community A, there are more points for access to internet and computer technologies than Community B. This is partly because of the presence of a community development franchise that utilizes earnings from the provision of ICTs and other services at a cost to finance community development initiatives. In addition to this, five other locations provide internet access. In Community B, residents do not have community access points and rely on personal devices, visits to the University, or to the nearest town centre, about quarter of a mile from the community.

Research Method

A focus group method to explore the university-community engagement and the role of ICT development initiatives with community members was utilized. Focus groups have been useful in supporting research on university-community partnerships (Hart & Northmore, 2011). Five focus groups were conducted, and the composition of the focus groups is outlined in Table 2 below. The focus group size was selected based on the suggested numbers for focus groups of this type (Howard et al., 1989; Tang & Davis, 1995).

Table 2 Composition of Focus Groups

Focus Group	Community	Age Group	Number of Participants
1	A	18 – 24	5
2	B	18 – 24	7
3	A	35 – 45	5
4	B	35 – 45	5
5	B	60 – 80	6

The participants in the focus groups were chosen purposively through community liaison officers that collaborate with the University to mobilize residents for meetings and initiatives. Residents were chosen according to age and years of residence in the community. Discussions were held with participants about the use of ICTs, and knowledge of engagement by the University with the community. For Community A, this was important because of the presence of the community development franchise, which is also managed by the University. Community B, does not have a community development franchise and therefore served as a comparative group.

At the end of the focus group sessions, the notes were compiled and cleaned for any errors in the textual data. The focus group transcripts were then coded through the use of Atlas-ti, a research analysis software. Creswell (2013) notes that the coding process involves aggregating text or visual data in small categories of information. The process of coding started with open coding. Research team members tried to interpret what participants were saying and assigned each sentence a code. In most cases, this code was one word and in some instances a phrase or an actual quote from the text. No pre-conceived codes were developed. The process of coding was largely interpretative and constructivist on the part of the researcher. Sometimes researchers would have to assign an entirely new code for a whole paragraph as coding by sentence did not always reflect the rest of the ideas expressed by a participant. Approximately 20 codes were identified in the reading of the textual data of the first focus group. These codes included but were not limited to: access to internet, accessibility of internet, children and internet, parental support for ICT, application preferences. For codes such as application preferences, comments related to participants indicating a device or online software for accessing internet were assigned such as code. The research team also identified themes individually and then discussed, gaining consensus and assessing inter-coder reliability. The open coding phase also involved researchers going back and forth across the textual data from all focus groups to identify new codes or justify definitions for existing and emerging codes. This may be likened to the zig-zag approach used in grounded theory design - a constant back and forth through transcripts identifying new interviewees (Creswell 2008) or as in our case new codes.

A second round of coding was done to help with the analysis of the data. This involved examining the frequency of the codes arrived at from the open coding round. Codes with very low repetition in the textual data were examined more closely to determine if they could be

collapsed with other codes. This collapsing of codes was a precursor to the identification of the main codes that would become the themes for write up of the findings.

Looking at the repetition levels of a code was just a step in identifying the main codes. The use of co-occurrences as a tool in the software helped strengthen the process of identifying the main codes. Le Compte (2000) explains that it is about things happening at the same time and place. In this exercise, Atlas-ti was commanded to determine which codes of information were occurring alongside each other. For example themes of information for access to internet shared a co-occurrence with accessibility to internet. This means that wherever people spoke about either, information on the other could be found. Similarly wherever participants spoke about connecting with family and friends, information on application preference was evident.

FINDINGS

Through an analysis of the focus group discussions, themes were identified which related to the research questions posed. Themes (also called categories) are utilized in qualitative research and are “broad units of information that can consist of several codes aggregated to form a common idea” (Creswell, 2013, p. 186).

In examining the use of ICTs in the communities the themes of sharing, building social networks, conflict management, building economic networks, involvement in children’s activities were identified. We then discussed the awareness of university-community initiatives and views on the support of ICT usage in the community by the university, including the interface between the university and communities.

Sharing

Three types of sharing were interpreted from the conversations with the participants in the focus groups. At one level, participants would share pictures social media sites like facebook, on their profile page to let persons know of what is happening in the community.

“When we had the Christmas Treat, I put the pictures up on my page because that was the first time in [the community] that that had ever happened.”

There is also another facet of sharing which is directly associated with accessibility to the internet. Respondents said that some persons shared their WiFi and data package access with neighbors and friends.

“Sometimes they will share their password and the neighbour helps to pay the monthly bill. You can also share you phone data package by creating a Hotspot. You have to make sure that the person you share the Hotspot with does not download or stream or the megabits will run down quickly.”

Most respondents said that they accessed the internet through data plans on smartphones or open wifi sites. The most popular open wifi sources were the university and another community neighbouring their community. They also mentioned that some residents accessed the internet from laptops and desktops but phones were the most popular devices. Participants mentioned that sometimes they were able to access free wifi from neighbours who left their wifi unlocked but this had become less frequent due to password encryptions blocking access.

Sharing of knowledge, skills and resources was also highlighted in the discussions. For example in focus group done in Community A, a participant said that she was part of a *Whatsapp* group for parents of children attending the school in which her son is enrolled. This group shares information related to books and their availability as well as meeting dates set by the school.

“It makes communicating easier. The parents at my son’s school have a WhatsApp group and it is really great. I can know about anything that is happening like PTA and emergencies. The parents now know each other a regularly chat. Right now when we are shopping for school books we send each other pictures and compare prices so we know where to get the best deals.”

Building Social Networks

All participants recognized the value of the internet for staying connected with friends and family. They also used the social media platforms to add to their network of friends and relationships. Additionally participants also gave the impressions that internet was a necessity in their life and alluded to how it has re-shaped interactions with people.

“People in the community still talk to each other but now we talk on the phone. I sometimes talk to my family members downstairs using WhatsApp when I am in my room upstairs.”

In Community B, youth spoke of a process of screening potential persons before adding them to the network and also meeting them.

“Yes all the time. If you have a friend on Facebook that has a friend you send a request and chat with them and then you meet them. You also meet people who you just see online. You go on Skype and have a video chat with them to make sure they are not a Catfish (Persons who use fake profiles).”

“We talk to persons to expand our networks. I meet lots of persons from different communities, you get new friends. If we want to meet in person we go to HWT in a public place. If anyone wants to meet in a private place I will get suspicious, something is wrong.”

Building Economic Networks

Not all participants spoke about this issue of improving their economic well being through the use of the internet. Notwithstanding this, participants did see a value for the internet as a contributor to earning an income or money.

“You put up anything, if you have a business you put up things. I do hair so I put up pictures of the different hairstyles for persons to view.”

The bridge between social and economic networks was also seen, particularly in discussions of online relationships with persons overseas. One respondent noted that

“WhatsApp I can meet men from overseas who when I am a little short I can talk and send a picture and they will send me a \$50 or \$200 to help me out.”

Conflict Management

Some respondents noted that social media facilitated expression of feelings of anger or hurt, without having to deal with any face-to-face interactions.

One respondent noted that

“I like Facebook, You can express how you feel to persons without confronting them face to face so it prevents conflict. Once I write what I have to say on Facebook I feel better and when I see the person I will not approach them.”

Another indicated that

“If I am angry with my man I put up a status on Facebook and he automatically knows that the message was for him.”

Involvement in Children's Activities

Participants in the older age groups spoke of positives and negatives regarding the internet.

"Yes because the youths are not on the road. Instead of being on the corner getting in trouble they are busy looking girls on social media inside."

Another respondent said they felt that it could contribute to the development of the youth from the community:

"The internet makes more people educated; they can just go on and learn new things."

One youth participant spoke about how learning subject has become easier.

"When you watch the lessons on YouTube you catch on faster. I have an IT book but I learn more watching videos. The videos make it much easier and fun to learn. You see all the steps on what you are doing."

For some participants who were parents they saw the internet as potentially dangerous and felt that their kids needed to be monitored once they were online.

"When my daughter has projects such as to draw the human eye I will sit with her and she searches for the information. I will not leave her alone because she might damage the computer. She would push up the buttons and go on sites that could damage it. I allow her to use it to play games. She is nine years old but if I do not watch her she will visit all kinds of sites."

"You have to be careful there are porn sites that they can go on and there is also YouTube that has adult things."

"Children watch these videos and then do what they see. My daughter can do every dance that is popular now because she watches the videos."

Regardless, these participants also spoke of preferences in equipment use for accessing internet to assist their children with school assignments.

"Yes the children now use the phones to do their research because the teachers now want them to write their projects because they realize that they are not learning when they just copy things off the internet. You do not have to come here so much now because you no longer have to print things. The teacher said that they will now have to read about the things in their assignments so they now learn."

Throughout the focus group discussions there was a lot of talk about internet as it relates to obtaining information. As seen above, participants used the internet as a portal to gain more knowledge on issues concerning them. One respondent thought internet access was very informative and helpful. The respondent thought also that the internet was useful to research health and benefits of plants because *“I look up on different types of plants and herbs that are good for certain ailments.”* And another remarked *“I check for side effects on medication online.”*

Awareness of University-Community Initiatives

Not all participants were aware of initiatives that the University was spearheading or engaged in their community. However knowledge of some of the initiatives was demonstrated by some participants.

“I know that students from [the university] come here and work in the basic school.”

“The annual research Seminar for the first time was held outside of the university right here.”

“I know of the partnership the community has with the [university’s community engagement programme].”

“Some children go over to [the hall] for extra lessons.”

“The Film Project if the persons who did the course could create a movie about the community and then find some bigger company to fund it that would have an impact. Other communities who watch it would want to be like us.”

Support of ICT Usage through University-Community Engagement

In Community A, the University had partnered to take over the operations of an existing community access point which is also part of the community development franchise. Respondents indicated that they had heard of it from family, friends or other community members who recommended the location but that location has also had its own challenges. Discussions with the management of the business revealed that there has been a drop in the demand for internet usage services and they attribute this to the fact that more individuals have access to internet and the convenience of doing such on their phones. It was noted that the location could provide assistance with creating documents, printing and helping persons of all age groups with various ICTs they may not be familiar with.

In discussing how they found out about the community access point, one respondent indicated *“I passed by and saw it.”* while another focus group participant said *“I saw a brochure that it was now open in my community.”*

In relation to the support of ICT usage in the communities, the respondents also identified the sharing of the university’s Internet access, through availability of WiFi at certain locations on the campus close to their communities.

Some respondents in the community stated that did not have a community access point while others felt that the university could provide a facility that offered open WiFi access. The facility would include an area where persons could be trained in information technology and also have library space geared towards increasing educational capacity.

“I think having a building where we can access the internet from inside. It would be better because you would be able to use your smart phone, tablet, laptops inside without the fear of being held up and robbed. It would also prevent the primary school children from the dangers of crossing the road to access the campus’ open WiFi. They would be able to just stay right here.”

“The [university] should give each household a computer and access to their WiFi. Sometimes the security guards harass you when you go on campus with your laptop to access the WiFi.”

Other respondents mentioned that the university accommodated their Internet access in different ways and at some locations on campus, and they appreciated this support as some other places were not willing to share their facilities.

DISCUSSION

The residents in both communities have access to internet mainly through phone devices. These devices allow them to interact with people across different communities and countries, including those in a global experience of interconnectedness. This shared experience is happening with a system and equates with a level of consciousness and awareness about capabilities to which they now have better access for many of those participants and others in their communities. These capabilities are limited by the inability to access additional resources that would allow them to begin businesses and industries linked to such applications. There is also the issue of agency; if they only see the access to internet along certain opportunity streams

such as to use for research, for assignments and recreation. The shift in consciousness to identifying other opportunities may only happen with greater exposure and education. This is where more University involvement may facilitate so that residents in those communities become able to earn revenue from knowledge that they have about internet use. The education and right exposure can boost self efficacy, which may bring change to the lives of these people and the communities in which they reside.

The interaction with others through social media platforms like Facebook allows participants to continue socializing with others and widen their social network. They learn to see themselves through the eyes of others as they forge new relationships. People are free to express themselves and play out particular roles and can be perceived as a coping mechanism for dealing with strains they feel in their lives at the moment.

Through messaging, persons enjoy a limited sense of privacy and security, as they are directly interacting with others. This can be good and problematic as we learnt from one of the females who would entertain males she would meet through a particular platform, anytime she wanted a little money. In a way it is a consciousness that lets people believe they are in control but are in fact interdependent and relying on a system of controls and rules dictating how they should behave. Behaviour is preconceived and a culture of how interaction takes place becomes universal. There are boundaries that people can control through their own agency, the actions of others or the owners on the platform. The concept of power then becomes a check and a shared construct.

There is also exclusivity in the inclusive feeling of interconnectedness as interaction is taking place in a circle of people who share common characteristics despite class, race or creed. This we saw in the experience of the parent who was part of the Whatsapp group associated with her son's school. Involvement in such groups creates equality with the spread of information sharing but excludes others who do not have access to phone devices with internet capabilities. Being part of the group and equal information share does not necessarily translate into further capabilities, such as being able to purchase a textbook. It also does not mean that all the persons who are members of the group, interact outside of the group, as the interaction between participants could be confined to that virtual boundary. This is an experience that could be taken

for further study but is an important caveat in a country where there is strong political relations and class boundaries.

In community B, older residents participating in the focus group reflected on the times when people would come together to talk but now with messaging and internet people do not leave their homes for such interaction. One female participant in a focus group said that she found herself messaging others in her house, when she could just call or walk to them.

It was rather interesting how the older participants saw youth interaction with the internet. On one end they see it as being able to keep the youth off the road and in the house, a representation of being sheltered and secure, but also recognized that the internet had negatives and could be a bad influence.

CONCLUSION

This study facilitates the exploration of research questions related to the usage and awareness of ICTs initiatives that are implemented in communities through university-community partnerships. This is an area of interest particularly as universities assess best practices in formally structured community engagement initiatives and the role of ICT for development initiatives in these partnerships. The study provides the perspectives of members of two communities and their awareness, across age groups, of the capabilities of ICTs but further awareness that the capabilities of persons need to be enhanced, possibly through interaction with each other and the university, so they can translate networking and interaction into economic opportunities and avenues to signal calls for the development of the community.

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