Towards understanding digital divide in rural partnerships and development: A framework and evidence from rural Australia

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**ABSTRACT**

Despite increasing recognition that the world's social and environmental problems cannot be addressed solely by business, government or society in isolation, the role of partnerships in rural development has only recently started to attract the interest of rural studies scholars. The study adds to the growing stream of research by investigating how the information age's emerging social challenge — the digital divide — influences rural partnerships and development. Burgeoning literature evidences that the digital divide encompasses not one but many discontinuities. This paper reconceptualises the digital divide concept and explores exactly how its shocks and tensions impact rural partnerships and development. Results of this research indicate that the digital divide is a threat to the performance of rural partnerships, which consequently renders rural development outcomes unsustainable, lopsided and non-participatory. This paper recommends the need for a more responsive and localised approach to rural development partnerships that can enable disadvantaged groups to participate in today's digitally connected economy and society.

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1. Introduction

The impact of information and communications technology (ICT) on rural development is a much-contested issue. In most developed countries, many communities are able to reap benefits from using these valuable resources. However, less technologically advanced communities are still unable to take full advantage of the information and technology resources that could very well help to improve their socio-economic status (Alam and Imran, 2015). As the concept of endogenous or grassroots development continues to attract increasing interest from academics and policymakers (Fałkowski, 2013; Moseley, 2003; Ray, 2000), the issue of rural partnerships has emerged as a common theme (Derkzen et al., 2008; Furmankiewicz et al., 2010). In this research, a rural partnership is understood to be the act of bringing diverse public and private resources together into innovative collaborations to strengthen communities and improve life in rural settings (see Furmankiewicz et al., 2014).

Traditionally, as corporate–community partnerships are frequently expected to provide benefits and opportunities, businesses have therefore become more willing to recognise their role as development actors (Kemp, 2010). These roles are frequently executed via their partnership mechanisms, reflected in their engagement, communication, negotiation, conflict resolution and development programming strategies. Queensland, as a state in Australia with huge coal seam gas (CSG) deposits, has on occasions seen regions and communities experience a significant boom in their local economies as a result of interactions between operating firms and host communities. The Surat Resource Region in Queensland, for example, has a long history in corporate–community partnership initiatives. This has involved local community groups — including property holders’ groups, social clubs and workers’ unions — interacting with operating firms to address community needs, including irrigational projects with farmers, rehabilitation of roads and airports, educational scholarships, skills apprenticeship opportunities, affordable housing projects, environmental projects and sponsorship of community social events (CSIRO, 2012). Thus, there is little doubt that
corporate–community partnerships as a rural development mechanism, is promising.

However, more recently, despite the extensive adoption of partnerships and claims of their benefits to businesses and rural societies, the reality is that the ability of rural partnerships to foster development remains a fragile field (Erdiaw-Kwasie et al., 2014a). Data presented in this paper was gathered as part of a broader, three-year study that aims to develop and test a model describing relational issues confronting partnerships between resource communities and energy firms, and the implications of such issues for corporate social responsibility (CSR) practices. The broader study employed a multi-method and multi-phased research design. This incorporates a content analysis of sustainability reports of five leading mining companies in the Surat Resource Region in Australia, and in-community case studies comprising surveys, interviews and focus group discussions (FGDs), which were undertaken in four resource towns in the study region. Preliminary literature findings prior to developing the study model revealed that corporate–community partnerships are undermined by diverse gaps ranging from power inequities (Bice, 2013; Jenkins and Obara, 2006), the digital divide (Muthuri and Mwaura, 2006; Erdiaw-Kwasie et al., 2014a), through to conflicts (Davis and Franks, 2014; Kemp et al., 2011). This paper focuses on the digital divide, and explores how it influences rural partnerships and development.

Rural studies literature has generated ever-increasing interest in the potential impacts of digital connectivity on quality of life in rural settings (Philip et al., 2015; Wallace, 2012). For example, recent rural studies have focused on how digital connectivity can impact the health and social care system in rural communities (Townsend et al., 2015). According to Koutsouris (2006), the challenge of assisting farmers and other rural populations to develop requires new technologies, new skills, changed attitudes and practices, and new ways to collaborate. This, in turn, requires that rural populations have access to relevant information knowledge and technology. Alexopoulos et al. (2010) also repositioned the divide argument within the rural context and argued that digital connectivity can stimulate community participation and revitalise civil societies. However, although much of the literature favours such a ‘techno-optimist’ approach to rural development, this ignores the fact that on a worldwide scale, rural areas lack the resources and the skills needed to take advantage of the benefits of digital initiatives (Malecki, 2003; Townsend et al., 2013). Erdiaw-Kwasie et al.’s (2014b) study further confirmed that rural communities lack the resources required to derive the purported benefits from digital connectivity. Drawing on the recognition that the digital divide is a complex concept of interacting physical, technological, human, and social resources, this study aims to empirically investigate the digital divide within the frameworks of rural partnerships and development. Findings presented in this paper are drawn from the in-community case studies.

To address these research questions, this paper is structured beginning with the introductory section. The second section presents a clear understanding of the concept of rural development and insights into rural partnerships. The third section focuses on defining and redefining the digital divide concept and supplements these definitions with discussions on some rural cases from Australia. The fourth part of the paper documents the research methodology, with details of the research approach, sampling technique, data collection and analysis techniques, as well as descriptions of case communities. Section five presents the results of the study, and the sixth section discusses these results. The last section documents the conclusion and implications of the findings of this research.

2. Rural development and partnerships

2.1. Understanding rural development

There is a long history of advocacy for participation among rural residents, primarily for needs assessment and implementation in development initiatives championed by local government institutions, businesses, non-governmental organisations (NGOs) or international development organisations (Kolawole and Ajila, 2015). Rural participatory appraisal methods have gained increasing popularity over the last decade as a means through which locals play significant roles in rural livelihood improvement interventions (Chambers, 2008; Zulaikha and Breerton, 2013).

According to Moseley (2003), rural development generally refers to the process of improving the quality of life and economic well-being of people living in relatively isolated and sparsely populated areas. Rural development has traditionally focused on the exploitation of land-intensive natural resources such as agriculture and forestry; other economic activities relate to the primary sector, production of foodstuffs and raw materials. The term is not limited to issues of developing countries; in fact, many developed countries have very active rural development programs to advance undevolved rural regions (Furmankiewicz et al., 2010).

More recently, there has been a major shift in attitudes to community involvement within the rural development process (Shaxon, 2011). Approaches that saw rural communities primarily as passive recipients of development initiatives have given way to those which seek to utilise the potential that more active community participation might offer for enhanced accountability and improved responsiveness of services (Cornwall et al., 2000). With this shift, there has emerged a greater emphasis on issues of governance and, within that, on the institutional dimensions of rural development. Rural development basically aims at finding ways to improve the lives of rural communities through the participation of local people themselves to meet the required needs of such areas. Rather than passive recipients, communities have in many contexts been anticipated to become active makers and shapers of decisions that affect their own livelihoods (Chigbu, 2013; Erduna and Kirbas, 2012). According to Ismail (2009), an outsider may not understand the setting, culture, language and other things prevalent in the local area, and as such, it is more effective for local people themselves to participate in their sustainable rural development. Cornwall et al. (2000) indicated that engaging rural communities in decisions that affect them helps to ensure the appropriateness of service provision, and to enhance project efficiency.

In rural areas, it is typical that development initiatives are faced with many challenges, as practitioners have to find the path for development that suits the particular local conditions. In this process, the type and nature of relationships between local communities and governments, civil organisations, enterprises or international development agencies is considered imperative for sustaining a desirable environment; it is also necessary for creating a vital social system that fosters collaboration and development (Ismail, 2009; Kotey and Rolfe, 2014).

2.2. Rural partnerships: an insight

‘Rural formations are woven from the disparate beings, processes and materialities of the world, and the forces that shape them include differing forms of agency that can be variously described as non-human agency, relational agency or collective agency’ (Jones, 2006: p.185).

Woods (2007) further emphasised that the constitution and reconstitution of rural places is therefore not in the control of
human actors — local or global — but is a multi-authored and negotiated process that seeks to engage, define and position a vast array of natural, material and social entities. It is therefore not surprising that rural studies literature emphasises rural partnerships as a vital engine for meaningful grassroots development (Clark et al., 2007; Derksen et al., 2008; Furmankiewicz et al., 2010).

In traditional rural contexts, rural development partnerships appear to be appropriate for introducing new forms of integration between existing actors and the efficient use of local resources (Keegan and Nguyen, 2011). In the case of a more dynamic rural context, rural partnerships usually tend to improve performance in the institutional context. In attempting to understand the true attributes of what a partnership looks like, Ray (2005) identified two basic characteristics. The first states that rural partnership development is oriented around maximising the retention of benefits within the local territory by valorising and exploiting local resources. Second, the development model emphasises local participation in the design and implementation of action. A major strand of research in rural studies has sought to understand common experience and draw lessons on the successes and failures of endogenous partnership approaches via international comparative studies (see Dax, 2014; Falkowski, 2013; Marquardt et al., 2012).

The first case is Moseley's (2003) PRIDE research project (1999–2001), which provided comparative analysis of the experiences of partnerships across Western Europe, drawing mainly on the experiences of the EU's LEADER Programme. In the same study, the author identified three critical conditions which need to prevail for a grassroots partnership to be successful: (i) the competence and commitment of partnership staff, (ii) the successful mobilisation of local knowledge about the needs and resources of the area, and (iii) decision making being exerted at the local level (Moseley, 2003, pp. 164–165). Elsewhere, Kemp (2010) drew on his ethnographic research and gave equal attention to rural community relations within the context of the mining industry. His study revealed that, for community relations to gain strength and be meaningful, the firm should de-link rural community relations from public relations.

Considering that the practice of rural partnerships is a recent experience in most European and Asia Pacific countries, several problems remain to be solved if an appropriate contribution is to be made by local partnerships to sustainable rural development (Geddes, 2006; Macken-Walsh, 2010; Peck and Tickell, 1994). Past studies highlight that despite endogenous partnerships providing the interface for local initiatives, development actors and partners do not attempt to reflect or mirror the local cultural context, leading to an ethnocentric approach to partnerships and engagement (see Falkowski, 2013; Marquardt et al., 2012). This limits the ability of local communities to build a meaningful partnership interface. Despite these important works, the overall corpus of grounded, ethnographic studies which focus on partnership challenges of the digital divide in a rural context, remains small.

3. Overview of the digital divide

3.1. Defining and reconceptualising the digital divide

After a series of US Government reports adopted the term 'digital divide' — referring to the socio-economic gap between communities that had access to computers and the Internet and those who did not — the term quickly became one of the political and academic 'hot-topics' of the 1990s. These debates are rooted in a deeper history of the term, which has gained unprecedented popularity as occurring between cadres of technological 'haves' and 'have-nots' or 'information rich' and 'information poor' (Howland, 1998). As general levels of access to computers and the Internet have steadily risen, some academics, technologists and politicians are talking of the death of the digital divide and declaring the war won (see Strover, 2003; Sutherland, 2004).

Arguably, after two decades of such digital battle, perception about the divide is undergoing huge reassessment. Recent research challenges the current popular perception of the digital divide, which equates inclusion in the information society with access to computers and the Internet. The dichotomous approach (haves vs. have-nots) has been challenged as being narrowly focused (Ewing, 2013), and hence expressions such as redefine the digital divide and beyond access have emerged (Underwood, 2007; Van Dijk and Hacker, 2003). Servon (2002), for example, asserted that the struggle to create such a change in digital divide thinking is worthwhile, as earlier conceptualisation of the concept stands a high risk of universal access without a social change. Thus, the concept of the digital divide was modified as: (i) not only a technological, but a social problem, that is, a phenomenon reflecting broader social, economic, cultural and learning inequalities, and (ii) concerning not only physical access but the required skills for using computers/the Internet and what users do with them as well (Alam and Imran, 2015; Borisov and Serban, 2013; Van Dijk, 2005). For instance, Underwood (2007) shared that the initial digital divide definition has been extended from the simple access model of physical resources such as computers and broadband connectivity to levels of literacy and skills that allow individuals to fully engage in the digital world. Similarly, during the second decade of the 21st century, the OECD redefined digital divide as the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to both their opportunities to access ICTs and the inequity of the use of the Internet for a wide variety of activities (OECD, 2013).

According to Cisler (2000), connectivity falls along a continuum rather than into a bipolar split, and thus the divide concept — which implies a bipolar division between the haves and the have-nots, the connected and the disconnected — is problematic. Warschauer (2003) further confirmed that the notion that the divide-induced development gap can be filled by the provision of equipment draws attention away from more complex long-term processes that bolster social development and inclusion. Information and computer technologies (ICTs) can play a critical role in social development if, as Jarboe (2001, p.31) advised, we focus on the transformation, not the technology. Servon (2002) indicated that if the Internet does not function as a ladder out of poverty or social deprivation, but intertwined with other critical factors, it can assist in making rural policy efforts more complete and equitable.

3.2. The digital divide in Australia: the rural realities

Over the past decade, the rapid expansion of the Internet has been transforming the Australian economy. It is likely to play an even greater role in the daily lives of people and businesses as the country positions itself to become a leading digital economy. After the Networking the Nation (NTN) digital divide policy by the Coalition Government in 1997, the Labor Government announced the National Broadband Network (NBN) in 2009, which was aimed at offering Internet speeds over 40 times greater than the current average (Hoy, 2007). Today, in spite of the change in government, the NBN is still being rolled out through public-private partnerships, with changes in implementation plans already evidenced. However, recent studies (see Ewing, 2013) indicate that even though there is an increase in computer usage and Internet access across metropolitan and rural areas in Australia, the digital divide within these areas is still not decreasing. Bowles' (2012) study confirmed that, despite conscious efforts by the Australian Government in pursuing various policies to bridge the digital divide
since the mid-1990s, it is feared that the digital divide is in danger of widening in Australia.

The rural dimensions to the digital divide are much evidenced in the Australian context. Many Australian studies on Internet usage and digital divide have claimed that the divide is present across urban and rural areas. However, a more recent dataset confirms that the rural areas in Australia are in a disadvantaged position in terms of various socioeconomic indicators compared to their urban counterparts (Australian Bureau of Statistics (ABS, 2013a). In 2013, the Internet diffusion rate in Australia was recorded to have crept up but the distribution of access was far from equitable, particularly between residents in metropolitan cities and rural communities in regional areas. Exclusion is more concentrated in areas of socio-economic disadvantage such as urban fringe areas and public housing estates, and for those with no fixed abode (ABS, 2012; Cole, 2012). Recent studies have concluded that disadvantaged groups within Australia — including people in rural communities, refugee communities, Indigenous communities and culturally and linguistically diverse communities — are more likely to be victims of digital exclusion (see Alam and Imran, 2015; Walton et al., 2013).

Surveys have indicated that the underpinning reasons for such a divide in Australia cut across socio-economic, demographic, ethnic and political factors (Alam and Imran, 2015; Atkinson et al., 2008; Bowles, 2011; Lee, 2011; Rennie et al., 2013). For instance, Atkinson et al. (2008) while exploring digital divide in Albany, a regional city in Western Australia, found the presence of digital divide in relation to age, education and income levels — an observation that was mirrored in Bowles (2011). Consequently, in recognition of these disparities, beliefs that the Internet will enhance the grassroots development process, allowing many more people to use on-line resources to engage, mobilise and participate in public life directly in policy or rural development discussions still remain a distant hope for rural regions in Australia (Zappalà et al., 2000; Charleson, 2012).

4. Methods

4.1. Proposed framework

Fig. 1 presents a framework developed following the literature review on the three central concepts that form the fulcrum of this study. From the preliminary review of the extant literature, it was evidenced that the digital divide does influence rural partnership status (Alexopoulos et al., 2010; Cresci and Jarosz, 2010); similarly rural partnership systems influence development outcomes (Clark et al., 2007; Derkzen et al., 2008). This paper thus presents this existing relationship within a three-phased, bi-relational framework, as shown in Fig. 1.

Interestingly, despite such an illustrated link among these concepts, underlying factors which underscore such relationships have not yet been empirically explored and tested. Thus, this paper intends to inductively explore underscoring issues within each central concept, hence promoting nuanced understandings of how they influence each other. Following the ultimate aim of this study, the illustrated framework poses three underlying research questions (RQ), which this paper ultimately addresses:

RQ1: What is the state of the digital divide among community groups within the Surat Resource Region?
RQ2: How does the digital divide influence rural partnerships’ performance?
RQ3: How do the partnership challenges of the digital divide impact rural development?

4.2. Research approach, sampling and data collection

This study took an inductive research approach towards addressing its guiding questions. Inductive research is a systematic procedure for analysing qualitative data in which the analysis is likely to be guided by specific evaluations (Thomas, 2006). The approach involves detailed readings of the raw data to derive key constructs, themes or models through researchers’ interpretations of the raw data. Considering the ability of inductive approaches to allow research findings to emerge from the frequent, dominant or significant themes inherent in raw data (Giola et al., 2012), this approach is ideal for obtaining realistic constructs that underpin the interrelationships between the digital divide, rural partnership and rural development.

Data presented in this article were collected by the researchers on four separate site visits within a four-month period (September—December, 2014). During the data collection period, the researchers held interviews and focus group discussions (FGDs) with the purposively sampled population.

Interview findings and discussions were drawn from situated engagement by the researchers with 30 respondents from seven sampled rural community groups, as described in Table 1. All interviews were tape-recorded, transcribed verbatim and transferred into the NVivo software which was used for the data analysis. For the purpose of the analysis captured in this paper, as all the seven sampled rural community groups were coded RG1, RG2, RG3, RG4, RG5, RG6 and RG7, interview respondents were coded R1, R2, R3 ... R30 respectively. After the interviews, two follow-up FGDs were held in Chinchilla and Miles-Wandoan to validate the findings from interview sessions. Here, the two FGDs were coded as Chinchilla FGD (FGD1) and Miles-Wandoan FGD (FGD2). FGD participants were then coded P1, P2, P3...P19. Participants included community group leaders, local council staff, NGO representatives and legal practitioners. The FGDs in each community were also recorded and transcribed.

Qualitative thematic analysis was performed on the gathered primary data. The researcher followed a step—by—step process of successfully handling the data analysis, which included organising the data, finding and organising ideas and concepts, building overarching themes in the data, and ensuring reliability and validity in data analysis (O’Connor and Gibson, 2003).
4.3. Case study communities

The Surat Resource Region is renowned for producing agricultural and energy resources for both domestic and international consumption. Its natural endowment has attracted a number of companies to operate within the region. Of the different forms of unconventional gas, the most developed in Australia is coal seam gas (CSG), which has rapidly expanded in the state of Queensland over the past decade (Fleming and Measham, 2014; Geoscience Australia, 2012; Keogh, 2013). According to Geoscience Australia (2012), as of 2011, Queensland possessed over 90 per cent of the country’s known economically demonstrated resources of CSG, of which the Surat Basin is a key host (see Fig. 2). In balancing priorities between these conflicting sectors that form the backbone of the region’s economy, the Queensland Government is currently mounting policies and strategies to ensure that accelerated growth of the resources sector does not disadvantage the food and agricultural sectors, the environment, or the communities’ health and wellbeing (Queensland Treasury and Trade, 2014).

As at 30 June 2013, the estimated resident population of the Surat Basin Resource Region was 47,212. The region is comprised of six towns (classified as statistical area level 2 (SA2)): Chinchilla, Miles-Wandoan, Roma, Tara, Wambo and Roma Region (Queensland Treasury and Trade, 2014), whose population dynamism has influenced the constant increase in the region’s population over recent decades. Recent research by Queensland Treasury and Trade (2012) indicated that much of this increase was due to rapid development of CSG projects and the level of construction.

Table 1
Interview sample description.

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<tr>
<th>Sample</th>
<th>Description</th>
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<tr>
<td>Size</td>
<td>30 respondents from seven rural community groups in the four sampled communities, namely: Chinchilla – 2; Miles–Wandoan – 1; Roma – 3; and Wambo – 1</td>
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<td>Criteria for selection</td>
<td>The group must:</td>
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<td></td>
<td>- be functional in the sampled community</td>
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<td>- be willing to participate</td>
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<td>- be located in a rural area in the region</td>
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<td>- have a direct or indirect relationship with existing energy firms</td>
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<tr>
<td>Characteristics of group respondents</td>
<td>Occupation: Farmers (75%), Miners (15%), Service providers (10%)</td>
</tr>
<tr>
<td></td>
<td>Education: Tertiary (35%), High school (55%), Others (10%)</td>
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Fig. 2. Map of the Surat basin resource region.
Source: Adapted from Queensland Treasury and Trade, 2014.
activity in the rural areas.

In the Surat Resource Region, large corporations in the mining industry use their community information centres as an interface for interaction with local groups and residents, where the face-to-face approach is not uncommon (Hilson, 2011). However, in recent times, digital (online) approaches to stakeholder interactions have gained popularity as an emerging engagement technique among operating firms. The complexities associated with these newer approaches are evidenced among populations living in the town centres and the rural regions. This study describes the rural areas within the case regions as places located more than 5 km from a town.

The Surat Resource Region forms part of the Western Downs, where it has been estimated that 90 per cent of households have computers and over 85 per cent of households have home access to the Internet (Alam and Salahuddin, 2015). This suggests a high connectivity for the region as a whole. However, it is difficult to determine the connectivity rate of the Surat Resource Region, as region-specific data are lacking. Given that the population of the six statistical areas which make up the Surat Resource Region reflect the regional socio-demographic average, it can be inferred that the Surat Resource Region has a similar connectivity level. However, the digital chasm among the case regions varies.

5. Results

To deconstruct the traditional conceptualisation of the digital divide, and to gain a more holistic understanding of its dimensions, the present study addresses the three basic questions posited by the proposed framework.

5.1. What is the state of the digital divide among community groups within the Surat Resource Region?

The data obtained from the interviews and FGDs held within the sample local communities unveiled that the digital divide manifests among local community groups in three basic forms: (i) ‘Not having ICT’ (lack of digital physical access/connectivity), (ii) ‘Having ICT but being unable to use it’ (lack of skills and knowledge), and (iii) ‘Its attributes do not meet expectations’ (digital contents).

It was evidenced from the findings that the dimensions of the digital divide vary among individual communities. Interestingly, despite such variation, the observed trend from the study data indicated that digital connectivity has significantly increased. This can be confirmed through a common view shared by some respondents that physical access to computers and the Internet is gradually becoming a common asset; and as access increases, concerns about access is becoming a thing of the past among many community groups. However, closer examination of the data revealed that digital access is still a cause for concern within local community groups, but has changed and taken up new forms. Across all of the participants, digital access barriers manifest themselves where a person has a computer but no Internet — a very common situation in rural locations within the sampled regions. As indicated:

“Our group has its own computers but no reliable source of Internet ... so we usually use these computers to store records of [the] group’s activities and data, but not for any form of communication with energy firms” (R1 — RG1).

“Our group is new and used to be part of an older group located in town. At the moment, we are located further from the town centre and have no Internet at our place of meeting. We try to handle things manually in terms of information dissemination among members and interactions with firms” (R1, RG5).

The consequences of such a ‘half’ divide access pattern was described by participants in terms of the same social problems that accompany the ‘full digital divide’, ranging from economic to cultural and learning inequalities.

Also, a significant proportion of the sampled group respondents emphatically stated that, the digital training dimension of the divide is a great challenge; this trend was reflected in all FGDs. A significant number of the interviewed group respondents revealed that local council plans towards creating a digital economy exclusively focus on increasing access to computers and the Internet, but the knowledge of how and why ICT can be a key resource is poorly addressed, particularly within rural settings. A respondent clearly shared that:

“... Many of our members lack the technical know-how for managing the use of the Internet. We usually communicate with members through emails, but many still prefer the face-to-face approach to information sharing” (R1, RG2).

Participants at the FGDs also described instances where there is the presence of computers and the Internet in many homes of group members, however, these continue to be underutilised. In cases where such resources are utilised, more focus has been placed on the usual online chats with friends and families, rather than uses for any community group-related activities such as emails, online surveys and knowledge sharing.

Increasingly, however, community groups are developing strategies which incorporate digital literacy into most programs they organise for members. Several participants suggested that such training has been helpful, but there is a long way to go towards realising the purpose and its end value.

“[The] majority of rural groups have limited knowledge of the Internet. [Some] groups have introduced new basic training programs to help equip members with needed skills. The problem is [these groups have limited human resources and so their] current capacity to provide training remains limited” (P1, FGD 2).

A significant portion of participants indicated that the low level of IT literacy (the ability to use IT for a range of purposes and the associated skills required) among communities has contributed to the divide dimension among many rural groups. In addition, those who volunteer to help other group members to acquire such skills are often poorly trained themselves; furthermore, groups usually have limited equipment with which to carry out the training sessions.

A final point relates to the content dimension of the digital chasm, in which the Internet is utilised but the knowledge gap and biased digital content yield user dissatisfaction, which dissuades them from future engagement with information technology. Many group respondents clearly indicated their anxiety regarding the language used on the Internet. Several group-leader interviewees also suggested that issues discussed on community web pages and other related sites were gradually being clouded by the activities of the CSG industry.

“... Community online pages, which used to update us on new community developments, are gradually losing [their] value. Nothing relevant to our wellbeing is shared other than the usual lies of the CSG [industry]” (R1, RG6).

“Companies’ activities only benefit town-centre residents and groups. Thus, going online to see the same usual stories is worthwhile.
We hardly use emails as a petition channel to firms because they don’t take them seriously. Thus, hopping onto the Internet to interact with firms is a waste of time” (R2, RG5).

These findings were further supported by outcomes of the FGDs, where several participants showed their frustration and shared that community digital forums, such as social media sites, have now become ‘platforms’ crowded with rhetoric and promises of the energy companies.

5.2. How does the divide influence rural partnerships status?

Thematic analysis of the interviews and FGDs evidenced three central themes as the impacts that the digital divide has on rural partnerships’ status. These are: (i) mismatches in interest, (ii) power inequalities, and (iii) exclusion.

Internet network coverage is limited on most rural groups’ properties. This critical issue was highlighted in both FGDs of the study. Several participants argued that the poor network services within the range of their properties is a great challenge.

“I live on the farm … this reminds me. Over a year ago, a property holders’ group [of which] I happen to be a member were told about an upcoming online engagement forum. The usual few lucky town-centre social groups ended up being used for the survey with some incentives for members … all because it was ascertained that the survey was purely online” (R2, RG1).

Participants expressed their discontent and suggested that outcomes of such problematic and biased engagement approaches do not address the true concerns of rural communities.

One key issue highlighted by participants in the FGDs was the comparison between digital engagement approaches and face-to-face approaches. Participants acknowledged the weakness of the face-to-face form of community engagement, where company officials meet up with community residents to deliberate on pressing issues. However, participants were more strongly opposed to the ramifications of the digital approach. As the digital engagement approach within rural regions is characterised by the involvement of just those members of the population who have satisfactory Internet and network access, the perceived community need does not always match the reality.

“… being cut off, or having limited chances to add input to decisions that matter to our progress, makes the quality of such partnership questionable” (R3, RG5).

In other words, the face-to-face approach creates platforms for wider participation compared to the digital or virtual approach, particularly in rural regions where the quality of the network access is doubtful. Participants therefore indicated that the digital divide marginalises rural groups and prevents them from contributing to decisions that impact upon them. Generally speaking, the emergence of digitised stakeholder engagement practices can derail the relationships that rural communities establish with development actors. According to some participants, such interactions are characterised by struggles and conflicts as the exclusions and inequities increase.

Considering these observations, it is unsurprising that the digital divide does increase the power imbalance within rural partnerships between rural groups and firms. As shared, that information is power, and power has a relational character (Lappe and DuBois, 1994; Erdiaw-Kwasie et al., 2015), a significant number of participants argued that a breakdown in communicative action through ineffective information channels can naturally hamper achieving power-equity within rural partnerships.

“… Yes, the law gives power. However, in today’s business world, solving power differences within rural partnerships goes beyond the law…” (P1, FGD 1).

Several interviewees expressed their concerns and indicated that digitised engagement practices by firms with local groups will compound the power chasm, which has its roots in the resources legislation of the state government.

Rural communities suffer when corporations fail to tailor partnerships to the various manifestations of the digital divide. A participant clearly suggested that:

“… I think digital initiatives by firms in their operations are of paramount importance. What is missing is when and how to blend well such digital initiatives with local conditions, and this has sidelined efforts of rural groups in such relationship[s]” (P2, FGD 2).

Other responses also confirmed that communities continue to struggle with the digital divide, which limits their power in influencing corporate decisions, and consequently limits their development as a community.

Moreover, study data revealed that social development initiatives are often conceived in the premises of firms rather than through thorough participation with the beneficiaries. Several interviewees described the current engagement pattern of the firms as ‘selective’, as it is geared towards areas where they can easily gain publicity for their actions, to the detriment of rural areas, which suffer most from such mining operations.

“… Due to the prevalence of the divide in rural regions, firms easily interact with local groups in the town centre more than rural ones. Thus, major developed social initiatives tend to strengthen and support goals of town-centre groups more than their rural counterparts” (R1, RG3).

A significant portion of the participants commented that, what may be perceived by firms as key priority needs of local communities may, in reality, not reflect the true needs of the entire community.

Reflections from the FGDs enunciated and confirmed the findings of earlier interviews. As participants tried to dissect the impacts of the divide, in the context of the interests of both the firms and rural community groups, the issue of ‘self-prioritised’ needs came to the fore. From the perspective of the participants, firms cannot pursue proper community development agenda in rural regions without a critical reconsideration of the roles of local community groups – who tend to serve as the local engine to foster local growth.

5.3. How do partnership challenges of the divide influence rural development?

Thematic analysis of the study’s data found three broad themes that illustrate the repercussions of partnership challenges of the divide for rural development initiative outcomes. Here, development outcomes tend to be (i) unsustainable, (ii) lopsided, and (iii) non-participatory.

The data unveiled that as partnership systems are continuously eroded by the diverse dimensions of the divide, non-participatory forms of development emerge in their place. Shared comments by key actors of sampled community groups indicated that, a partnership with a huge power imbalance is more likely to give rise
to outcomes that are devoid of actual voices of beneficiaries of such
development interventions. During the FGDs, participants unveiled
an interesting argument around how the technology-oriented
engagement approach is eroding the traditional principle of
participation in firms’ interactions with host rural community
groups. Several participants agreed that the technology gap leaves
passive participation as the only option available to many rural
groups, as they are only informed of proposed corporate plans after
prior consultation with prioritised partners.

Also, study findings clearly showed that partnership challenges
have negative implications for the sustainability of development
programs and project outcomes initiated by energy companies.
Significant numbers of respondents indicated that the sustain-
ability of the outcomes of development initiatives hugely depends
on its partnership source – whereas a healthy and mutual source
provides enabling environments for such outcomes to thrive well,
the converse is also true.

“... To me one thing is obvious, if the root is weak the tree will surely
fall soon. They [energy firms] have not done things right with
working with rural community groups. Thus, whatever develops
from such a sick partnership will not last” (R2, RG3).

“... The current partnerships between the energy firms and many
rural groups makes [each] development intervention to appear
more of a casual gift than [a] true development initiative” (R3, RG2).

Sustainability (or otherwise) of development outcomes was an
issue of great interest to the participants as they discussed why
some community projects fail or are short-lived. Several partici-
pants concurred that the weak relationships between rural com-
unity groups and firms cause corporate-led development
initiatives to lack adequate support from the local population.

Location preference emerged as a key factor when assessing the
status of the partnership systems that firms create with local
groups. Study findings showed that local groups based in the town
centres are considered the first point of contact and are prioritised
by existing firms in their engagement policies and practices due to
their adequate access to digital resources. On the other hand,
groups located on the outskirts of the town face partnership chal-
fenges of the divide– in terms of finding enabling environments to
make their claims heard and have them addressed, as well as
influencing overall corporate development decisions.

“On a good day where energy firms want to do something right
with their development programs, they capture views of some local
groups. But it is always them [the town-centre local groups] e.g.
social clubs) who have a reliable digital access. Rural groups (e.g.
property holders’ groups), which fight for [the] rights of rural folks,
are only considered when they [firms] need a property to host their
wells” (P2, FGD 1).

“Development only goes to areas where the public can see their so-
called good works. This camouflage kind of development is for their
enlightened interests and makes community development a more
one-sided thing” (R4, RG5).

“... more pressing needs of us [community residents] are less pri-
oritised by firms, given that our groups, who are greatly challenged
by inadequate digital access, have limited chance to influence
development decisions sponsored by operating firms” (R1, RG4).

According to the study data, the digital divide is one critical
factor that has accounted for such a dichotomy between town-
centre local groups and the rural groups. This produces
unbalanced, inequitable development from the outset.

6. Discussion

The study results provide key insights into three core rural
concepts: the digital divide, rural partnerships and rural develop-
ment, which the existing literature shows are closely interrelated.
Holistically viewed, the study results improve and expand upon the
initial framework derived from the preliminary literature review;
thus, Fig. 3 shows a revised framework that requires quantitative
validation.1

The digital divide challenge was evidenced among rural com-
munity groups, and this was manifested in three central themes:
access, skills and content. The presence of the access and skills
dimensions of the divide concurs with the findings of recent similar
works (Alam and Imran, 2015; Atkinson et al., 2008; Bowles, 2011;
Lee, 2011). Though we see some signs of decline in the divide due to
improvements in the telecommunication network and physical
access to ICT among rural groups, the study results showed that
rural groups are recording improved access to digital devices
without the Internet. In cases where the Internet is available,
IT–literate people within rural groups are few, and do not consti-
tute a strong enough human resource for their respective groups.
The data also provided empirical evidence supporting what Servon
(2002) described as a divide situation wherein people access the
Internet but are limited by a knowledge gap that separates them from
any meaningful understanding of issues shared. The study findings identified that users’ expectations and interests constitute
key determinants in addressing the content dimension of the dig-
ital divide in the rural context.

In exploring the impacts that the digital divide can have on rural
partnership systems, the present study results found three key
impacts: mismatched interests, widened power-inequality, and
exclusion. Evidence showed that the industry’s traditional face-to-
face community consultation is gradually being replaced by more
digital engagement approaches, which are perceived as more cost-
effective and easily accessible for stakeholder. Looking at the study
results and revisiting the purported digital claims, the impacts that
many digital proponents hoped it could have on rural partnership
systems still remains a mirage, and worst of all, has led to new
partnership challenges that have exacerbated the plight of rural
community groups. Study data showed that as corporations strive
to go digital in their operations, a significant number of disadvan-
taged groups continue to struggle with access to the skills, tools
and resources needed to digitally engage. Thus, findings suggest the
need for engagement approaches to be significantly sensitive to
different actors’ participation abilities, power relations and their
digital capacities at play, in cross-rural partnerships.

In addition, what became clear during the study is the direct
impact that partnership systems have on rural development out-
comes. The data suggested that many actors come in to play when
we talk about a region’s development, and that overlooking the role
that each partner plays has irreversible consequences on develop-
ment outcomes. It is therefore evidenced that partnership chal-
fenges of the digital divide negatively affect rural development
initiatives, where outcomes lack local knowledge and support. We
critically observe that the issue of ‘self-prioritised’ local needs by
firms is a travesty to the whole idea of grassroots development, as it
compromises on the significance of locals’ input within the devel-
opment process. To quote Schumacher: ‘[If] the people … are

1 It is imperative to empirically test the constructs in the proposed framework
using quantitative techniques, as it will help validate the findings presented in this
paper and ultimately refine the study’s framework.
helped to help themselves, I have no doubt that a genuine development will ensue ... [But it] cannot be “produced” by skillful grafting operations carried out by foreign technicians or an indigeneous elite that has lost contact with the ordinary people.’ (Schumacher cited in Frynas, 2005, p. 589).

In their attempts to understand how rural development setbacks arising from the digital divide can be addressed, several participants suggested that firms’ partnership policies and approaches should be sensitive to the prevailing conditions within a given locality, as the digital capacity of regions varies. This finding supports a similar observation made by Furmankiewicz et al. (2010), when considering rural partnerships within the Polish local government set up. This study further affirms the relevance of digital empowerment of local communities as an ideal pathway towards offsetting rural partnership challenges, particularly in the case of resource communities and social impact industries. Interestingly, contemporary exigencies necessitate organisational social responsibilities to be built around communities’ needs and expectations, while also providing room for community empowerment (Erdiaw-Kwasie et al., 2015; Idemudia and Ite, 2006). Conspicuously, digital empowerment of rural groups and regions has the potential to positively influence rural partnership systems and grassroots development outcomes (see Furmankiewicz et al., 2014; Townsend et al., 2013).

7. Conclusion

This paper presented a new dimension of the rural partnership development studies debate. Though rural development has been coined around initiatives undertaken by partnerships between local communities and other stakeholders such as local government institutions, businesses and NGOs, little has been seen in rural studies on how the emerging global canker – the digital divide – influences the effectiveness of rural partnerships. From the perspectives of mining and rural partnership development, this remains polarised. The study findings add to the stream of knowledge in this emerging field in rural studies by providing suggestions that has policy and empirical implications.

In policy and practice terms, this study makes a significant contribution towards an understanding of the divide-induced tensions existing within rural partnership development; these can serve as a guide to rural planners and development practitioners. As the paper presents key social issues associated with the divide from a rural perspective, it calls for significant reforms in resource development policy initiatives. Ideally, rural community groups may become advocates for local development initiatives. However, stewardship may not occur if rural groups feel the engagement practices of firms do not provide enough support for them to play significant roles in the resource development process, as well as reshaping development initiatives towards meeting societal expectations. This is a key finding also worth consideration among policy makers in government institutions, corporations, international development agencies and NGOs, who interact and partner with rural regions in diverse ways.

Further, as the ‘going digital’ slogan gains popularity within the global business hemisphere, study findings confirm that rural mining communities lag behind in terms of access, knowledge and content in adapting to the digital pace. Thus, there is the need for a more responsive and localised partnership analytical approach within social impact industries (e.g. resource industry) that can inform meaningful dialogue, open decision-making and sharing of mutual futures. The absence of such analytical approaches to guide the practices of developers can result in a loss of trust and conflict of interest, and may in some extreme cases reduce the partnership interface to a battleground where consensus is hard to reach. This paper can therefore serve as a pathway in efforts towards developing meaningful partnership analytical approaches that can enable disadvantaged groups to participate in today’s digitally connected economy and society. This can, in turn, provide the kind of enhancement necessary to make rural development initiatives a success.

The paper, however, reveals two critical concerns worth investigating in future studies. First, considering that the study interviews were mainly conducted with local communities and not mining companies, exploring the corporate view is timely, as it can open up a different side of presented argument. Second, this paper asserts that quality partnerships require not only institutional changes – particularly changes in procedures for decision-making and control over resources, but also a focus on enhancing the capabilities of rural regions to exercise their new rights and responsibilities in the whole resource development process. Thus, there is the need for future research to focus attention on how local empowerment initiatives within rural regions can help overcome the digital divide challenge to help build healthy partnerships. It is such a partnership type that can help rural communities to take charge of their own development – a mechanism that defines meaningful local development from a rural perspective.
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