Faster, Richer, Better: Rapid Appraisal Techniques for the Study of IS Implementation in Virtual Communities

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Abstract

A major issue in Information Systems (IS) research is how to combine relevance and rigor (Benbasat & Zmud, 1999) and reduce the widening gap between research results and adoption (Dunn, 1994). Qualitative researchers make use of interpretivist methods to add richness and depth to their understanding of user problems. Interpretivist methods applied to IS implementations can thus result in research which communicates those findings more effectively. However standard interpretivist data-collection and analysis methods can be time-consuming and expensive. Findings based on these methods may be irrelevant to practitioners by the time they reach publication stage. A potential solution to this problem lies in Rapid Appraisal or RA, a qualitative appraisal methodology derived from rural development-related research. It offers IS researchers an additional technique for learning and acquiring relevant information in a limited period of time that supplements current data collection and analysis techniques. RA adds value to the traditional approach for studying diffusion of innovation, supporting and extending the IS researchers qualitative tool-kit. In this paper we review an electronic gateway designed to facilitate the diffusion of an Australian government to business [G2B] export documentation system, EXDOC, which was first implemented with meat producers. RA techniques were used to collect and analyse data regarding the implementation of the first regional Electronic Trade Facilitation Center [ETFC] successfully established for Australian exporters in the horticulture sector. The findings from the original EXDOC implementation in the meat sector were confirmed and extended through this study. These include the importance of developing a governance structure that ensures all community members share the benefits of an implementation and the fact that virtual trading communities are attractive to users only if they add value to their business and extend standard ways of operating. Interactive interviews, part of the RA approach; also enabled us to expand our understanding of the way in which procedures developed in the course of implementing an electronic market represent value-adding opportunities for virtual trading communities. The paper has special relevance for researchers investigating adoption and diffusion issues experienced by small-scale producers with low exposure to technology in remote and rural settings.

Keywords

Virtual Communities, Adoption and Diffusion of Online Systems, and Qualitative Research Methods

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Acknowledgements

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Introduction

'In most situations where large information systems give blanket definitions of need, the application of RRA helps to make the picture into something more like a patchwork quilt'
(Slim & Mitchell, 1992)

Qualitative methods are particularly appropriate for research which requires understanding of a complex range of variables impacting on one another as well as on project outcomes. In the area of Information Systems (IS), however, standard qualitative research methods do not always match project requirements. In-depth case studies, for example, may be too time-consuming while other data collection methods, such as formal questionnaire-based surveys can be costly and not especially appropriate to situations requiring problem definition rather than hypothesis testing.

IS researchers also frequently require data gathering and analytical methods which can be applied in the field and which are designed to handle the special problems of such field-based activities. Context, for example, may be critical to understanding an implementation and may require the undertaking of research in a particular location. Such field locations are often important in studies of phased implementations and, indeed, studies of adoption and diffusion issues frequently require multiple visits and data gathering to confirm or extend sets of variables gathered during the initial implementation. The standard IS literature, however, lacks a recommended methodology for collecting data from numerous, dispersed populations over time.

In this paper, we suggest that Rapid Appraisal or RA offers IS researchers a useful instrument which provides a solution to these problems. IS researchers are already well-served by qualitative approaches to data gathering in a traditional business context (such as soft systems methodology, structuration theory, and many others). What RA offers is a methodology particularly well suited to gathering data in a dispersed, community setting from multiple respondents. Relevant information can be learned and acquired in a limited period of time and the low impact of RA data gathering techniques makes it particularly suitable for research into sensitive topics. Rapid Appraisal techniques thus represent a valuable new research instrument for the IS researcher.

We begin by outlining the background and development of RA and discussing its key features. In Section 2, we review a number of applications for RA methods in IS adoption and diffusion studies. In Section 3 we apply RA methods to investigate adoption and diffusion patterns and relate our use of RA methods to collect data on events leading up to the launch in August 2002 of the Electronic Trade Facilitation Centre (ETFC), an electronic gateway for Australian producers in the horticultural sector, designed to facilitate the electronic export documentation process. Section 4 expands on the value of Rapid Appraisal methods and their application by the authors to the ETFC study. We

conclude the paper by indicating how RA methods provide IS researchers with an additional qualitative instrument to narrow the gap between research results and adoption.

Rapid Appraisal Methods

Rapid Appraisal (RA) is a qualitative appraisal methodology derived from rural development-related research. It offers IS researchers a process of learning and acquiring relevant information in a limited period of time. RA is particularly useful in defining issues and generating insights, emphasizing learning from and with a community. In the specific application of RA methods reported in this paper we define 'community' as exporters in the Australian horticultural sector. Horticultural exporters have recently been able to access EXDOC, a government to business (G2B) system replacing manual paper-based certificates. EXDOC provides online access to government health and/or phytosanitary export certification from the Australian Quarantine Inspection Service [AQIS] where these documents are required for export.

Background

The earliest form of Rapid Appraisal originated in the late 1970's. Known initially as Rapid Rural Appraisal (RRA), the new methodology was fostered to improve the cost-effectiveness, timeliness, and quality of rural development-related research (Gibbs, 1995; Kachondham, 1992). RRA is one of several related qualitative research methods utilizing participatory techniques as well as analytical approaches. RRA derived from two different sources; ecology and systems disciplines utilising analytical techniques such as pattern analysis, flow diagrams and decision trees to study agricultural ecology (Conway, 1986) and the participant observation methodology of socio-cultural anthropology (Sweetser, 1996). Rapid Rural Appraisal is closely related to action research methods such as soft systems methodology [SSM] (Checkland, 1981). RRA methods were also a reaction to the defects and high costs of large-scale questionnaire surveys and to earlier development paradigms that produced much spurious quantification. Practitioners viewed the minimal stakeholder involvement of those undergoing 'development' as a contributing factor to the poor outcomes of many costly projects (Chambers, 1992, 2002).

RRA takes a multi-disciplinary approach to research and has been described as a qualitative survey methodology (Dunn, 1994). Data gathering is based on sampling from a range of experiences and from people in the field. This information is then filtered through the perceptions of the researcher/s to provide rich detail and insight. Particular variation is sought rather than averages. RRA techniques have been applied extensively in many areas of development studies including agricultural research planning (Henman & Chambers, 2001), natural resources and landcare (Dunn, 1994) and emergency relief (Slim & Mitchell, 1992). Whilst RRA techniques have been notably absent from IS implementation studies to date, they have been applied to reviewing technology development and adoption in development studies (Kachondham, 1992).

Robert Chambers, a pioneer and proponent of RRA techniques, has published a number of seminal works in this field. Extensively cited publications include proceedings from a rapid rural appraisal conference at Khon Kaen University in Thailand (1987),

articles in the Journal of World Development (Chambers, 1994) and most recently, his participatory method workshop guidelines from the Institute for Development Studies, Sussex (Chambers, 2002). Chambers (2002) acknowledges that the generic term, Rapid Rural Appraisal or RRA has now expanded to a number of related applications including Relaxed Rural Appraisal, Rapid Assessment Procedures, Participatory Rural Appraisal and Participatory Learning and Action. In this paper we refer to these related applications as 'Rapid Appraisal' or RA. The term Rapid Appraisal or RA recognises that as a technique it 'does not need to be exclusively rural nor rapid but is economical of the researcher's time' (IISD, 1999; Beebe, 1995).

RA continues to evolve and spread so quickly that no definition can or should be final (Chambers, 2002). Regular updated information on developments in relaxed and participatory appraisal is available at the website of the Participation Resource Centre http://www.ids.ac.uk/ids/particip/research/pra/pranotes02.pdf. RA is often multi-disciplinary in nature with in-built flexibility in the process of collecting information. A broad description of RA is 'any systematic activity designed to draw inferences, conclusions, hypotheses or assessments, including acquisition of new information in a limited period of time' (Grandstaff & Grandstaff, 1987). While once linked to projects, and focused mainly on rural development, RA techniques are now linked to larger issues of policy and governance and used in urban and other contexts (Chambers, 2002). The methodology is gaining recognition and is being used in the identification of community problems, and for monitoring and evaluation of ongoing activities. The RA approach has been described as useful for gathering information on a broad range of community activities and to develop a better understanding of systems dynamics (Chambers & Blackburn, 1996).

Techniques

RA forms part of a continuum of qualitative appraisal methodologies, which require superior observing, listening and learning skills. RA techniques are frequently contrasted with the use of large-scale surveys, particularly in terms of sample selection, data collection, and interpretation of findings (Grandstaff & Grandstaff, 1987). Frequently cited features of RA are triangulation, optimal ignorance and appropriate imprecision. True participatory research must include rapid and progressive learning, learning from and along with a community as outcomes (Chambers, 1992). The conversational style of interviews that the approach requires is inconsistent with the use of questionnaires, which limit the respondents' ability to shape the line of inquiry.

The researcher is expected to aim at achieving an overview or systems perspective. This requires skill in engaging a significant number of individuals in discussions to represent variability and in finding key informants who can describe the broader system beyond their own direct participation (triangulation).

Optimal ignorance and appropriate imprecision are two important RA concepts which the researcher must be trained to apply. The concept of optimal ignorance encourages the researcher to limit data gathering to what is needed. Appropriate imprecision requires the researcher to measure only as accurately as is necessary for practical purposes (Chambers, 2002). Both these principles encourage speedy data collection and analysis. The approach facilitates identification of factors which were not

clear prior to the start of the assessment and seeks an answer to Chambers' question: 'How do I find out what I do not know that I need to know?'

In practice, RA is an intense and iterative process (Kachondham, 1992). RA aims at coping with complexity, diversity and interdependency in a holistic fashion (Niameogo, 1992). Participatory research can be thought of as an open system that uses feedback to 'learn' from its environment and progressively change itself (Beebe, 1995). Researchers begin with information collected prior to field visits and then progressively expand their knowledge and deepen their understanding by gathering new information through semi-structured interviews and direct observations and sharing their interpretations of this new information as it is collected.

The RA approach is frequently described as reliant on small multidisciplinary teams. Researchers from a social anthropology background have placed particular emphasis on the team-based requirement for RA applications (Beebe, 1995; Kachondham, 1992; Thomas-Slayter, 1995). However, the method needs to be adapted if it is to be widely used when a researcher is operating by him/herself. In all such adaptations, proponents of the technique emphasise that prior to field visits, a thorough and expeditious literature search, considerable time spent reviewing issues and policies affecting the community and discussions with experts from various disciplines must take place (Kashyap, 1992). RA has been described as a growing family of approaches where no single technique can be termed the best (Beebe, 1995). Recent publications about RA emphasise the importance of appropriate attitudes, demeanour and behaviour (Henman & Chambers, 2001). Leading proponents of participatory methods appear more concerned with the 'how' rather than the 'what' of rapid appraisal practice. That is, its proponents focus on how the approach is implemented rather than what specific method is utilised in the process. Whether the researcher employing RA methods relies primarily on teams or interactive interviews is viewed as less important than whether the researcher's practice is reflective with a focus on participatory learning and action (Chambers, 2002).

Applications and Limitations of Rapid Appraisal Methods

RA fills the need for a multi-disciplinary approach to research where it is important to seek out and assimilate information in a time-efficient but rigorous manner (Dunn, 1994). Rapid appraisal methods are particularly valuable when qualitative understanding of a situation is required at a grassroots level in a short space of time. It provides researchers with the means for surveying community needs more effectively and sharpens the focus on the picture gained from broader indicators (Slim & Mitchell, 1992). Understanding the ways in which a community perceives problems is important for studies of IS implementations – an outcome that the collaborative approach of RA facilitates. The interaction between researchers and community members means that learning takes place in the field and is shared by all participants. The researcher is required to reflect on a variety of listening and observing experiences which can be both powerful and cathartic (Dunn, 1994).

The relevance of the research appeals to IS practitioners who expect readability and direct applicability (Alter, 2001). The application of RA methods can thus act to broaden the acceptance and relevance of IS research publications. RA can also be integrated with other qualitative methods currently used to study adoption and diffusion

patterns in IS implementations. It is a technique that can stimulate new thinking and assist researchers in defining problems.

RA is intended to ensure that project planning, problem identification and follow up activities relating to a project will be relevant and well received by the community the project is intended to benefit. RA methods ensure that new activities or implementations are grounded in a fuller understanding of community perspectives. RA also provides a basis for empowering beneficiaries and producing sustainable results (Sweetser, 1995). Where participatory approaches such as RA are employed, sponsors lose a degree of control but gain an enormous amount of ownership (Gibbs, 1995).

RA methods address IS concerns about the relevance of research by building the capacity of people to work together to address their own problems and interests (Sweetser, 1996). When presenting findings and suggesting action, RA priorities are simplicity, relevance and meaning. The RA approach fosters participatory social development as well as technological change because community members have responsibility for the directions of development and for negotiating with others to ensure that necessary support is provided. The interaction between the researcher(s) and community members that RA requires pre-empts the careless introduction of technology and informs the research process (Dunn, 1994).

RA methods require the researcher to pay attention to the context of the study in all its aspects. In the application of RA methods by the authors described in section 3 of this paper, interactive interviews – an important RA technique – were structured to ensure participants had opportunities to add unexpected but relevant information and ensure that learning proceeds from and with community members. These sessions with key participants added significantly to our understanding of earlier findings from in-depth case studies, sharpening the focus on specific features. A number of specific findings which might, in a 'traditional' case study environment, have appeared merely coincidental or accidental were, by virtue of their repetition across sectors and industry groupings, shown to be both central and crucial to the development and evolution of the government-sponsored community under study.

Participatory methods seem well suited to IS studies at a time where there is on-going questioning and reformulation of implementation concerns. IS research has shifted from an earlier focus on 'how do we make it work?' to 'what can it do for us' or even 'what meaning does it have for us'? Acceptance of interpretivist research studies is growing in mainstream IS publications particularly where it concerns the role of the user in implementation outcomes. This shift has been allied with on-going concerns about the relevance of IS research to practitioners (see Benbasat & Zmud, 1999). Implementation concerns are being reformulated as the parameters change. In this context, we suggest that RA techniques offer an attractive option to extend the IS researcher's 'tool kit' for data gathering.

RA is particularly applicable to IS research questions of an exploratory nature where context is critical to understanding an implementation. For example it would be impossible to study an online system such as EXDOC outside the context in which it occurs (Yin, 1994). RA methods allow us to take 'traditional' case study research into heavily context-dependent areas where many respondents need to be interviewed.

We believe that the participatory approach of RA is well suited to IS studies of virtual trading communities. RA shares many characteristics with Soft Systems

Methodology (SSM) (Checkland, 1981). SSM, however, was conceived as a method of working with clients in an organisational context to achieve change and would be very difficult to apply to a community environment. RA techniques, by contrast, seem particularly well suited to studies of IS implementations where communities rather than a few individuals are likely to be involved in the outcome.

RA also provides opportunities for valuable insights into emerging new topics. In particular, it appears to be particularly useful in dynamic areas of Information Systems research such as studies of the uptake of virtual trading communities by government and business. Rapid Appraisal methods can build deeper understanding of adoption and diffusion of iterations of an implementation – an IS research area where there are few revelatory studies. A researcher may be knowledgeable about the initial implementation but needs to capture the decision process in subsequent iterations of that implementation (Grandstaff & Grandstaff, 1987). The use of RA can be applied to provide sufficient data for broad and conceptual interpretation of these outcomes in a low-cost, time-efficient manner.

We have indicated a range of applications for RA in IS implementation studies, particularly as a data-gathering solution. However, participatory methods cannot claim to provide a panacea for all research problems and were never intended to provide a precise roadmap (Thomas-Slayter, 1995). The perennial problem for all qualitative studies - how to analyse and making sense of massive amounts of text-based data – remains unresolved. Rapid appraisal shares the limitations as well as the capabilities of other qualitative methods. As a technique, it provides considerably less support for data analysis than for the data-gathering stage of the process. While it helps to enrich the picture, it cannot provide information about the extent or pervasiveness of a phenomenon (Gibbs, 1995 op cit). Participatory methods are not and cannot be used as a substitute for quantitative analysis. They cannot resolve problems nor can the insights these methods provide be generalised.

Participatory methods require special techniques for analysis and interpretation which are often new to those coming from a natural science tradition (Dunn, 1994). The application of RA in a cross-disciplinary context by untrained researchers has led to quality assurance failures and 'some excruciating examples of bad practice' (Chambers, 2002). Bad practice could potentially discredit the technique, which underlines the need for training in participatory methods. Expertise and sensitivity is required to ensure that the researcher's need for the appraisal to be 'rapid' does not conflict with the users' right to be involved in the outcomes.

Adoption and Diffusion Issues for a Virtual Trading Community: RA Methods in Action

In Section 3 of this paper, we set out an example of the application of RA in IS research as the authors used it to review the diffusion and extension of one iteration of the phased implementation of EXDOC. The case study of the ETFC we discuss in this paper forms part of a larger research project which traces the implementation of the EXDOC system from its initial take-up in the meat export sector across a number of other commodity sectors. The research project required a study of the diffusion of this government to business [G2B] documentation system to all those commodity sectors and

a review of the role of the stakeholders in each sector. Two in-depth case studies were conducted in the meat sector (Wilkins, Swatman, & Castleman, 2003) and the dairy sector (Wilkins, Swatman, & Castleman, 2003; Wilkins, Swatman, & Castleman, 2004). EXDOC has since been adopted in a number of further commodity export sectors requiring health and phytosanitary certificates, such as fish, grains, horticulture, skins and hides.

While it was important to follow the initial studies in meat and dairy with a consideration of how other sectors responded to its diffusion, time, cost and access constraints did not allow us to undertake further in-depth studies beyond those in meat and dairy. The conflicting needs to study a comparatively wide number of sectors and industry groups, while being limited by time and financial considerations, created a need for a data gathering and analytical technique to gather data rapidly – but in a structured manner. RA provided that method.

In the horticulture sector, we applied these techniques to a review of the regional Electronic Trade Facilitation Centre [ETFC] in Shepparton, the centre of the Goulburn Valley region, an electronic gateway designed to facilitate the diffusion of EXDOC.

The horticulture industry in Victoria's Goulburn Valley – also known as the 'Food Bowl' region - is part of the principal food-processing region in Australia in dairy and fruits. Handling export documentation manually, represents high-risk exposure for growers in an industry that deals in perishables. Whilst major businesses in the region had established online access to world markets in their own right, smaller businesses were still struggling to come to terms with e-Commerce (personal communication, D. McKenzie, Corporate Manager for Economic Development at Greater Shepparton Council, November 2002). Community representatives had been searching for ways to provide the region with electronic services and had arrived at the following list of requirements for such services:

- all users would have access to common interfaces, software systems, infrastructure and investment
- both clients and suppliers would be represented
- local influence and participation were ensured
- scaling up was feasible but without compromising local participation

A funding opportunity for ecommerce early movers [VEEM] in 2000, provided seed capital and acted as a catalyst for establishing the ETFC in Shepparton. The project subsequently took on a commercial focus with the involvement of a business consultancy, a network representing major growers and exporters in horticulture and a third party provider and overseas investor.

Each group representative saw the ETFC as a key objective. It became evident during the project that successful implementation of the Centre was contingent on meeting the following requirements:

- champions of change to provide leadership
- networks and relationships
- setting the project in the context of a community vision
- a clearly articulated business case and value proposition

Earlier attempts to establish an electronic gateway to assist Australian exporters (Wilkins, Swatman, & Castleman, 2002) had met with failure. The ability to enthuse and retain the interest of the user community was seen as critical to outcomes by a number of the participants. Ensuring that momentum was maintained over the life of the project required sustained effort. Close cooperation with external stakeholders was vital, particularly the government body, Australian Quarantine Inspection Services [AQIS]. AQIS provided extensive testbedding facilities to ensure the required EXDOC hosting mechanisms and security requirements were in place. TAFFN, an exporters' cooperative and a shareholder in the ETFC, worked closely with the application service provider [ASP]. The ASP chose the Victorian fruit industry as a starting point for its Australian operations, setting up a pilot program of its branded IT solutions technology. What began as an economic initiative to help exporters is now seen to have enormous ramifications for the horticultural industry in the region (personal communication D. McKenzie, Corporate Manager for Economic Development Greater Shepparton Council, November 2002).

Participants in the project see the project outcome as not only a product but also a process. 'The model we built – designed for Australian conditions, balancing stakeholder interests with commercial ones, the interaction with AQIS – is something I would like to create for other commodities going out of regions' (personal communication I. Dennis, Whitehorse Strategic Group, November, 2002). The outcome of the ETFC launched in 2002 has been supplemented by what is perceived as a marketable governance model. The project, which has become a showcase for the region, created a win/win for all parties. All stakeholders now recognize the benefits of sharing resources, using leverage, enlisting political clout and working together to ensure aggregation of critical mass.

Review of an Application of Rapid Appraisal Techniques

Prior to commencing the study, the researcher gathered reports, published articles and a number of government and private sector documents. The application of RA techniques enabled a structured but rapid survey of practice, complementing qualitative methods used earlier in the research project. RA also provided a means of triangulation for other data-collecting methods such as semi-structured interviews and a focus group. The interactive interviews were structured so as to encourage observations, concerns or reflections related to the implementation process to surface. Where appropriate, key informants were presented with notes written up from the collected discussion to provide a further opportunity for comment or reflection.

RA techniques were particularly useful for testing whether the project was 'on track' according to the needs of the end-users and to investigate appropriate technology design, adoption patterns and impact evaluation of technology changes (Crawford, 1997).

The use of RA techniques enabled us to gain insight into particular variations in the diffusion experience of each sector. It also ensured that the distinctive features of each sector adopting EXDOC were not overlooked as they might have been in a formal survey. The application of Rapid Appraisal methods to this iteration of EXDOC in the horticulture sector underpinned two key IS research priorities. It confirmed and extended

the findings from the original implementation (reported in Wilkins, Swatman, & Castleman, 2002) and ensured that the findings were relevant for practitioners.

Interviews structured according to RA methods require the researcher to pay attention to context. These interviews confirmed the importance of developing a governance structure that ensures all community members share the benefits of an implementation. Virtual trading communities are attractive to users only if they add value to their business and extend standard ways of operating. The sensitivity of management working directly with user groups in the regional centre has ensured better service outcomes both for the sponsors and their implementation. A stakeholder who played a key role in fostering the ETFC governance model also identified this intangible as an additional value-adding outcome from the implementation. By sharing these observations and his keen grasp of the value and marketability of such services, this informant added to our understanding of the growing range of services these new virtual trading communities can offer.

Another important data element that emerged in the interactive interviews was that of the key role played in the implementation by the ASP chief executive. Based overseas, he was identified by several other stakeholders as a visionary with a strong export focus and as one of the significant champions of change at the birth of the regional centre. These observations were unlikely to have emerged in a formal survey.

This case study shows how RA techniques were successfully applied to study an eCommerce project. It shows that RA can be particularly useful for research projects that place a high priority on ensuring that findings are relevant to practitioners. Lee (1999) and Robey and Markus (1998) have set out a number of desirable attributes to help define the degree of relevance of empirical research to IS practice. Relevant empirical research should be presented in a style and idiom that aligns with the needs and requirements of the intended audience, be practically applicable to the target audience, current in its focus on technology and business issues and applicable to the intended audience via an appropriate communication channel. Empirical research should hold a high degree of future interest for intended audiences and be focussed on conveying practical solutions to a perceived problem rather than on issues of methodology. Considered in this context, the following table (Table 1) serves to highlight the specific benefits of applying RA to IS implementations to increase its relevance to practitioners.

Table 1. **Rapid Appraisal Techniques and IS Research Applications.**

Rapid Appraisal Principles	Applications to IS Research
• *Appropriate imprecision and optimal ignorance* Designed to deliberately restrict measurement and data-gathering to what the researcher(s) deem adequate and relevant for decision-makers	Useful in heavily context-dependent areas with numerous respondents especially in rapidly changing fields eg electronic commerce Economical of the researcher's time, project funds
• *Triangulation* Use of more than one, often three sources of information for validation eg group discussions, use of key informants, direct observation, community profiling	Improves accuracy of information and gives a better understanding of context, conflict and divergent perspectives.
• *Rapid and progressive learning/reflective practice* All participants are actively engaged in the learning process	Exploratory and iterative nature of RA generates insights leading to an understanding of the real problems and their solutions Can promote change and adoption by fostering better understanding of a technology and its benefits.
• *Strong researcher/community interaction* Achieved by group discussions, use of key informants, direct observation and community profiling	Suits IS implementations impacting on communities Develops a better understanding of system dynamics e.g., appropriate technology design, adoption patterns, impact evaluation Develops a sense of 'ownership' of the implementation Avoids misconceptions about specific user communities, their constraints
• *Sustained attention to context*	Prevents careless introduction of technology unsuitable to the context.

Conclusion

In this paper, we have reviewed an important element in the transition of a disparate group of exporters from a commodity sector to a virtual trading community. The use of RA techniques confirmed that a successful IS implementation can provide a number of unanticipated benefits. In the case of the ETFC implementation, the changed set of relationships among the stakeholders is recognised as one such non-quantifiable benefit and one that promises more value in the future (Gibbs, 1995). Insights as specific as this example emerge frequently in RA interactive interviews. Whilst such insights cannot be generalised, they can inform future action and help researchers develop a framework for related implementations (Niameogo, 1992). Our findings from the initial EXDOC implementation have been extended and enriched by the application of RA methods to reviewing this example of successful adoption and diffusion of an information systems application. The insights generated by adding RA to our data collection methods, will assist in the formulation of better practice guidelines for other G2B implementations.

Rapid Appraisal emphasises learning from and with a community. As such, the methodology has much to offer those within the IS research community who are seeking to counter the reported widening gap between research results and adoption. RA provides a valuable supplement to the qualitative researcher's 'tool-kit' in circumstances where there is a need to assess community response to project planning, problem identification and follow-up activities related to an implementation. At a time when IS researchers turn with increasing frequency to theories and techniques from adjacent and reference disciplines, Rapid Appraisal methods appear particularly well suited to the growing interest in methodologies that can offer practical assistance in identifying issues affecting uptake of innovative technology.

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Author's Citation

Wilkins, L, Swatman, P., & Castleman, T. (2004). Faster, richer, better: Rapid appraisal techniques for the study of IS implementation in virtual communities. *The Qualitative Report, 9*(1), 161-175. Retrieved [Insert date], from http://www.nova.edu/ssss/QR/QR9-1/wilkins.pdf