

**JOURNALISTS' APPROPRIATION OF ICTS IN NEWS-
GATHERING AND PROCESSING: A CASE STUDY OF
*GROCOTT'S MAIL***

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ABSTRACT

This study set out to investigate *Grocott's Mail* journalists' appropriation of information and communication technologies in news-gathering and processing using the social shaping of technology as a theoretical lens. It mainly focuses on digital ICTs that journalists use in news-gathering and processing including the Internet, electronic mail, and mobile telephony. *Grocott's Mail* is a small-scale newspaper based in Grahamstown, South Africa.

Using qualitative research method and the case study as its sub-method, the research reveals that *Grocott's Mail* journalists' appropriation of ICTs involves various opportunities and challenges in news-gathering and processing.

In terms of the state of the existing technological infrastructure, the study reveals that since it embraced the digital ICTs in 2003, *Grocott's Mail* boasts an adequate ICT infrastructure for a small-scale African newspaper with 30 PCs and one laptop, and professional software for 28 permanent employees. On the other hand, the research reveals serious constraints with the existing ICTs: a huge need for staff training and capacity building to fully utilise the ICTs, and the need to look for ways of raising funds to either upgrade or replace the existing ICTs.

Grocott's Mail journalists use the Internet to do background research on news stories, to verify the accuracy of information, and to check competition across other media. These are the merits of the Internet in news-gathering and processing. On the other hand, there are specific unintended consequences of the Internet such as wasting the company's working time, and its use leading to lazy/press release journalism.

Informants unanimously indicate that the main problems of the Internet are heavy dependence on other online news-sources and wasting time on online entertainment.

In terms of using email in news-gathering, the research finds email technology as having advantages such as being a tool of flexibility and speed, a tool for email interviews, and as a technology that promotes participatory journalism. On the other hand, challenges related to email include its limitations because of what interviewees view as its supplementary and small-scale use because of its low contextual richness as opposed to face to face interviews.

In terms of cellular telephony, the study finds that regardless of the ubiquity of cell phones and cell phone networks, they have not yet been deployed in news-gathering and processing due to various constraints. These are cell phones not being a big factor in reporting, lack of a proper funding and refunding scheme, prevalence of negative attitudes towards cell phones, and lack of a business model. Thus, cellular phones seem to have little or no relevance in news-gathering and processing at *Grocott's Mail* presently.

Key Words:

Information and communication technology · social shaping of technology · appropriation · news-gathering and processing·

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ACRONYMS AND ABBREVIATIONS

AMDI	African Media Development Initiative
ANC	African National Congress
BuaNews	South African Government News Service
CAR	Computer Assisted Reporting
CD-ROM	Compact Disk-Read-Only Memory
CRF	Corporate Research Foundation
DECSA	Department of Education and Communications of South Africa
DRPEJ	David Rabkin Project for Experiential Journalism
DRM	Digital Rights Management
DVD	Digital Versatile Disc or Digital Video Disc
Email	Electronic Mail
GSM 900	Global System for Mobile Communications 900
HTTP	Hypertext Transfer Protocol
HSRC	Human Sciences Research Council
IAP	Internet Access Provider
ICTs	Information and Communication Technologies
IE	Internet Explorer
IMS	Instant Message Service
IP	Internet Protocol
ISP	Internet Service Provider
MICT	Mobile ICT
MPCCs	Multi-purpose Community Centres
NIZA	Netherlands Institute for Southern Africa
NAF	National Arts Festival
OoO	OpenOffice Organisation
PC	Personal Computer
PITs	Public Information Terminals
SADC	Southern African Development Community
SAPA	South African Press Association
Sasol Scifest	National Festival of Science, Engineering and Technology

SMS	Short Message Service
SMTP	Simple Mail Transfer Protocol
SST	Social Shaping of Technology
TCP	Transfer Control Protocol
3D	Three Dimensional
2D	Two Dimensional
3G Mobile	Third Generation Mobile Phone
2G Mobile	Second Generation Mobile Phone
VoIP	Voice over Internet Protocol
WAN	World Association of Newspapers
WAP	Wireless Application Protocol
WWW	World Wide Web

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents the background to the study, statement of the problem, the significance of the study, theoretical perspectives, the goal and objectives of the study as well as the methods, procedures and techniques used. It justifies the research project and provides the structure of the study.

1.2 Research background

Based on the literature search carried out, it appears that there has not been much work done on journalists' appropriation of ICTs in news-gathering and processing at *Grocott's Mail* at post-graduate dissertation level at Rhodes University. Even at the African level, it is documented that there is little recent, publicly-available research on the status and use of technology and equipment in the newspaper industry in sub-Saharan Africa (BBC World Service Trust, 2006:68). However meagre they may be at continental level, such pioneering works seem to be indicative of the general focus of research in the area. The previous works of three Rhodes University scholars were mentioned in the 2006 BBC World Service Trust African Media Development Initiative (AMDI) report. One was the research by Banda (2004) which focused on the analysis of the newspaper industry in Zambia. Banda's study documented a number of case studies and concluded with inhibiting factors in the press industry (BBC World Service Trust, 2006: 68). The second study by Berger and Sibanda (2006) examined the use of ICTs by 'small-scale print media' in Southern Africa (BBC World Service Trust, 2006:68). By design, both studies were case studies. The technology chapter of the AMDI report indicates the poor state of ICTs across the newsrooms of 17 African countries and the general desire to acquire these facilities and the technical assistance to run them. In fact, the paucity of studies in the area was one of the justifications that motivated this study to help fill the gap.

Writing about the usage of ICTs in political expression in Kenya and Zambia, Mudhai (2004:1) holds that the supposed impact of ICTs, such as the Internet, email, and cell phones, has attracted enormous research attention since the mid 1990s. Whereas Mudhai speaks about ICTs in terms of their impact on democratic elections, I will look at the ICTs he mentions in terms of how they are appropriated in news-gathering and processing. Mudhai's article is indicative of 'new media and democracy' as one area that deserves research attention. His insight is useful because it indicates the specific ICTs that are fresh in new media research.

For his part, Pavlik (2004: 54-55) generally holds that ICTs can positively or negatively affect journalism. The primary area they affect is the way journalists do their work. Pavlik's statement prompts the question as to whether or not what he says also holds for *Grocott's Mail*. Thus, this particular research into journalists' appropriation of ICTs in news-gathering and processing is an attempt to fill the knowledge lacuna.

1.3 Statement of the problem

Since *Grocott's Mail* has been connected for only four years, it is necessary to understand the implications of being 'wired up' within the context of the newspaper's journalistic practices. This research thus addresses three specific sub-problems, namely: (1) describing the current state of ICTs at *Grocott's Mail*; (2) analysing how and for what significance journalists use ICTs in news-gathering and processing at the newspaper; and (3) locating the newspaper's journalists' appropriation of technology in a wider social context. Researching this problem has practical applications for *Grocott's Mail*'s future application of ICTs, as rationalised below.

1.4 Significance of the study

As highlighted in section 1.2., the current focus of ICT studies in media, inter alia, include studying the use of ICTs at 'small-scale print media', studying ICT policies of media organisations, and studying new media and democracy. The previous works in sub-Saharan Africa seem to be broad and exploratory in nature, mainly based on multiple country cases in the Southern Africa region (BBC World Trust, 2006: 68).

An understanding of journalists' appropriation of ICTs in news-gathering and processing is what this study aims to establish. The reason for focusing on the research goal and objectives is because of the paucity of earlier research specifically dealing with journalists' appropriation of ICTs in news-gathering and processing at *Grocott's Mail*. Addressing this research problem is direly needed the same way ICT studies in media are becoming more and more relevant across other African media houses. The significance of the study, therefore, is to contribute to the knowledge of how ICTs are appropriated in news-gathering and processing at small-scale media organisations in Africa, using *Grocott's Mail* as an exemplary case study. Particularly, this work is intended to influence organisational ICT policy and decision making at *Grocott's Mail* after it is publicly documented. Similar small community newspapers can see if there are similar trends with this case study and take the insights to help them in decision-making regarding ICTs. This study is an attempt to contribute to earlier knowledge while also serving as springboard for further research that may build on it, improve it, and even refute it.

1.5 Theoretical perspective

This study investigates journalists' appropriation of ICTs in news-gathering and processing at *Grocott's Mail* from the theoretical perspective of the social shaping of technology (SST). In their book about the social shaping of ICTs, Lievrouw and Livingstone (2002:7) propose the social shaping of technology approach as a framework for ICT studies in media. They derive the theory itself from the definition of 'new media'. The term 'new media' is often used interchangeably with 'ICT' (Lievrouw & Livingstone, 2002; Williams & Edge, 2001). Lievrouw and Livingstone believe that if new media is fully defined, it will lead to 'a framework that fully captures the rich interweaving of media technology, human, action, and social structure' (2002:7). Their definition of ICTs, which encompasses technology, practices, and social organisation, runs as follows:

By new media we mean information and communication technologies and their associated social context incorporating:

- the artefacts or devices that enable and extend our abilities to communicate;

- the communication activities or practices we engage in to develop and use these devices; and
- the social arrangements or organisations that form around the devices and practices (Lievrouw & Livingstone, 2002: 7).

They believe that this framework goes beyond simple classifications of systems and features of ICTs. The broader model of SST was developed to overcome the weaknesses in the linear technological determinism tradition. The main weakness of the linear approach was its treatment of invention and diffusion of technologies separately from their social and organisational contexts (Williams & Edge, 2001:160). Unlike the linear model, this study proposes the SST as an alternative, two-way, interactive approach to researching the use of ICTs. It assumes that neither technologies nor societies can alter the other. The SST model considers it worthwhile to subject ICTs to social and organisational analysis as they are being used. The essence of doing this is to open up the 'black-box' of ICTs to understand them in the social and institutional dynamics in which they are embedded (Williams & Edge, 2001:60).

This marks a shift of attention away from technological determinism. In support of this, Williams and Edge (2001:53) write that SST researchers problematise technological change by showing that it is patterned by conditions of its creation and use, rather than developing exclusively according to 'inner technological logic'.

Further, the critical approach to technology studies, which was championed by scholars like Raymond Williams, emphasises the examination of three important aspects: (a) the reasons for which technologies are developed; (b) the complexity of social, cultural and economic factors which shape them; and (c) that technologies have come to be used for certain ends rather than the characteristics of themselves (Williams, 1974 in Lister et al, 2003:81). Williams developed this theory as a response to technological determinism propounded by McLuhan in about the same period. McLuhan believed that technology has a revolutionary impact on all aspects of social and organisational life (1967: 26).

It is worth noting that SST has developed well since its emergence in the 1980s. Therefore, specifically, I will follow the type of SST provided above by Lievrouw and Livingstone (2002) because their theory is narrower, current, and of the type that is adapted to new media studies.

Therefore, I have three justifications for choosing the SST as a theoretical framework. Firstly, I chose SST because it is relatively more established, narrower, and closer to my research goal as compared to theories of information society, technology adoption, technology diffusion, and so on. Secondly, it helps to put in context the ICTs I focus on such as the Internet, email and mobile telephony and related computer applications (office software). Thirdly, it provides me with a way to avoid 'technological determinism' and helps me focus on how *Grocott's Mail* journalists use ICTs for certain ends.

1.6 Goals and objectives of the study

The overarching goal of this research is to investigate journalists' appropriation of ICTs in news-gathering and processing at *Grocott's Mail*. The specific objectives of the research are to:

- describe the state of the existing ICT infrastructure at *Grocott's Mail*;
- analyse how and why *Grocott's Mail* journalists use the Internet, email and mobile telephony in news-gathering and processing; and
- locate *Grocott's Mail's* technology use within the wider context in South Africa.

The objectives mainly deal with a few digital ICTs that are used in news-gathering and processing. Since journalists may use a combination of a few of these in their routine, it is important not to focus only on one and leave out the others.

Although this research is a small project that intends to understand only a case in an organisation, it is still inspired by the paucity of previous works done on the topic. Therefore, it constitutes a contribution to the existing knowledge gap at least at organisational level. Thinking in terms of research, one can not exhaust the multiple

aspects of the organisation. Nevertheless, it is possible to deal with some ICTs, but not all ICTs at *Grocott's Mail*. There are some digital ICTs that are used for purposes other than news-gathering and processing at the organisation. This research has as its focus only a few digital ICTs that are frequently used in news-gathering and processing as expressed in the objectives.

1.7 Methods, procedures and techniques

This study uses qualitative research methodology, as the methodology's multiple methods provide multiple views on a topic (Denzin & Lincoln, 2003:4-5). The methodology will help understand journalists' appropriation of ICTs in news-gathering and processing at *Grocott's Mail* in context. Hence, it will enable this study to provide a thick description of the case as methodology experts propound (Babbie & Mouton, 2001:270; Bryman, 1988: 58, 63, 65; Deacon et al 1999:6). The methodology's focus is on processes rather than products, on understanding rather than generalisability, and on small cases rather than huge samples. These are the main merits that this study wants to apply.

This study specifically uses the case study method. Within the case study, the techniques this study uses include: in-depth individual interviews, direct observation, document review.

The justification for using the case study method is that the method, through its multiple techniques, aids the researcher to obtain diverse and multiple evidence (Kvale, 1996; Litosseliti, 2003; Yin, 2003). That means there are many possibilities for cross-checking the validity and accuracy of information received; the process is technically known as triangulation (Yin, 2003: 98). According to Yin the use of multiple sources of evidence in case studies allows the researcher to address a wide range of historical, attitudinal, and behavioural issues (2003:98-101). As is true in principle, this study does not want to use one case in order to achieve the understandings of many other samples or cases (Stake 1995:4). It rather aims to follow up the one case thoroughly and present as many aspects of it as possible. Because of the goal of understanding the research problem in context, this research deems the case study the most appropriate method to use. The study also described

what did and did not pragmatically happen according to expectations during the fieldwork.

1.8 Structure of the study

Chapter one provides the general introduction to the thesis.

Chapter two discusses the detailed theoretical framework of the study and reviews the literature that has been produced in the area. The merits of the SST as theoretical lens of this study will be delineated, by contrasting it with the traditional technological determinism approach. In terms of the literature review, it presents an extrapolation and synthesis of relevant findings on the Internet, the electronic mail, mobile telephony, and newsroom computing. It then goes on to exploring social and professional issues associated with ICTs usage such as multi-skilling, newsroom culture, language and ethics.

Chapter three contextualises *Grocott's Mail* by providing the socio-economic conditions of Grahamstown, the history of *Grocott's Mail*, and the South African technological landscape and its implications for *Grocott's Mail* in terms of the ICTs under research.

Chapter four presents qualitative research methodology as an overarching methodology of the study. It then justifies why the methodology is appropriate to the study. The chapter moves onto discussing the case study method as the specific method that is used in this study. It justifies why this method is superior to others in dealing with the research questions. Within the case study method, it focuses on data gathering techniques such as the in-depth individual interview, direct observation, and documentary sources and justifies why they are relevant to the study. These three data collection techniques are also discussed both from theoretical and practical points of view. The chapter clearly describes the expectations prior to data gathering and the problems encountered during the fieldwork. It also presents procedures of sample selection and data analysis in detail.

Chapter five analyses and interprets the findings on how ICTs such the Internet, electronic mail, mobile telephony and some software are used in news-gathering and processing at *Grocott's Mail*. Along with the analysis of ICTs, it presents the associated multi-skilling and training issue. It carries out the analysis and interpretation by triangulating or converging evidence from different sources, theme by theme.

Chapter six provides the overall conclusions and recommendations of the study.

1.9 Conclusion

This introductory chapter provided the justification for this study, in addition to locating it briefly within the social shaping of technology theoretical model. It introduced the general background to the study by providing a panoramic vista of previous work. Then, it stated the goals and objectives of the study and why it is worth pursuing them. The chapter indicated that the study used qualitative research methods and the case study as its sub-method. Finally, it provided the thesis structure. The next chapter presents the theoretical framework and literature review of the study.

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Introduction

This chapter serves two main purposes: it discusses the theoretical framework for the thesis and presents a topical body of knowledge and research that have been produced in the area. The theoretical framework selected and the literature reviewed will be those that help in answering the research questions. The study's goal is to understand *Grocott's Mail* journalists' appropriation of ICTs, especially the Internet, email, mobile telephony and application software, in news-gathering and processing. It aims at exploring what journalists think the significance of using these ICTs is, and illuminates the existing technological infrastructure of *Grocott's Mail*. In the review process, how previous researchers went about their studies and what they found will be explored. Since this is a qualitative study, it builds on the body of knowledge that already exists instead of testing a hypothesis.

To approach the chapter systematically, I will use two of Mouton's (2001:91) ways of organising review of scholarship. These are: (1) by theme or construct and, (2) by school of thought, theory, and definition. The thematic construct refers to the main ICTs that are used in news-gathering and processing. It must not be misunderstood, however, that only types of ICTs will be listed and discussed in and of themselves. Rather, it selects a relevant body of knowledge, critically analyses views, compares and contrast them, and points out some of their merits and demerits where and when necessary. This applies to both the theoretical framework and literature review sections of this thesis.

2.2 Towards technical, critical and ideological definitions of ICTs

This section briefly presents the technical and ideological conceptual definitions of ICTs one after the other. Firstly, at the technical level, the Department of Education and Communications of South Africa (DECSA) (2002 in Lesame, 2005: 6) states that ICTs encompass:

All forms of electronic communication in both digital and analogue form. Digital electronic devices include computers, compact disk (CD) players, cellular telephony, and satellite broadcasting. Analogue devices are largely confined to conventional radio broadcast and audio, such as tape recorders.

Of the digital and analog ICTs specified here, because of the limited scope of the research problems, the focus of this study will be on those digital technologies that journalists use in news-gathering and processing. As such, the Internet and Internet applications (email and the WWW), cellular telephony, and application software will be given emphasis in this case study of *Grocott's Mail*. In short, the focus is on the digital technologies that are used to gather and process voice, text and images for the production of the newspaper. Electronic production technologies have the capacity of enabling us to collect and interpret information, gather new kinds of information and solve problems more quickly and efficiently (Pavlik, 1996:2). Whether technical advantages hold in the case study will still be a problem to be answered. The technological artefacts specified by Pavlik and McIntosh are similar to the ones provided by Lesame but the only difference is they call them 'production technologies'. These technologies at the disposal of the journalist include computers, digital cameras, Internet, electronic databases, spreadsheet programmes and interactive multimedia graphics (Pavlik, 1996:1-4; Pavlik & McIntosh, 2004:328). Common to writers defining ICTs from a technical point of view is that they tend to put emphasis on the technologies while overlooking their organisational and social contexts. That is why this technical definition needs to be complemented by the social shaping of technology definition.

Secondly, another critical dimension to the first definition is an ideological definition of ICTs. Lister et al (2003: 9-11) hold that as a plural term 'new media' is an enormously general and vague term. In their own words, the connotations read as follows:

The 'new' in new media as a reference to 'the most recent' also carries the ideological sense that new equals better and it carries with it a cluster of

glamorous and exciting meanings. The ‘new’ is also ‘the cutting edge’, ‘the avant-garde’, ‘the place for forward-thinking people to be.

The authors argue that the ideological overtones of ‘the new’ are derived from a modernist belief in social progress delivered by technology. It invokes the feelings that ICTs are the panacea for all the problems individuals, countries and institutions face. ICT companies and governments particularly tend to subscribe to these ideological overtones. Even media commentators and journalists succumb to this celebratory thinking that ICTs alone can cause individual, social and organisational progress. The relevance of this definition is it helps to deal with foreseen ideological views that may arise while researching journalists’ appropriation of ICTs in news-gathering and processing. Alongside the ideological connotation, they define new media in terms of the media as an institution, the intensity of change, and as non-technical and inclusive. The definition by Lister et al is helpful because it adds a critical ideological dimension to the definition of ICTs I have already provided.

2.3 Theoretical framework

The study analyses journalists’ appropriation of ICTs in news-gathering and processing through the theoretical lens of the social shaping of technology (SST). Historically SST studies emerged in the 1980s out of the critiques of the then prevailing ‘technological determinism’ tradition. Technological determinism was limited in its scope as it studied progress in technology and the social adjustments that it required (Williams & Edge, 2001: 52). This theoretical framework draws on the insights of key authors, contributors, and proponents of the SST. Among them the foremost writers whose works in SST are covered here are Lievrouw and Livingstone (2002), Williams and Edge (2001), and Lister et al (2003).

In their book about the social shaping of ICTs, Lievrouw and Livingstone (2002: 7) define what new media is and propose the social shaping of technology approach to ICT studies. They hold that defining new media in depth would lead to a framework that more fully captures the rich interweaving of media technology, human action, and social structure. They believe this framework goes beyond simple classification of systems and features. Their definition of ICTs combines technology, practice and

social organisation. To reiterate, from an SST perspective, by ICTs they mean information and communication technologies and their associated social context, incorporating:

- the artefacts or devices that enable and extend our abilities to communicate;
- the communication activities or practices we engage in to develop and use these devices; and
- the social arrangements or organisations that form around the devices and practices (Lievrouw & Livingstone, 2002).

Going beyond a mere description of inner technical features of ICTs such as hyperreality, virtuality, and interactivity and so on, they propose two other useful characteristics of ICTs: (1) the particular ways that ICTs are both the instrument and the product of social shaping, and (2) ICTs' particular social consequences. Thus, the model's precise idea is that new media technologies 'both shape and are shaped by their social, economic, and cultural contexts' (Lievrouw & Livingstone, 2002). To Lievrouw and Livingstone, such shaping is 'recombinant' in kind, and the systems are results of the continuous hybridisation of the social and the technological. Williams and Edge (2001: 53) write that SST researchers have problematised technological change by showing that it is patterned by the conditions of its creation and use, rather than developing exclusively according to an inner technological logic.

The insights from the work of Williams and Edge (2001) are important because they show the roots of the social shaping perspective as well as what social shaping is itself. They point out that the social shaping perspective developed out of the critique of technological determinism. It seeks to counter the idea of technological determinism which relies on 'technological imperatives'. It particularly deconstructs the prevalent ideas in government and industry circles that the routes of technological change are inevitable and necessitate particular social changes (Edge 1994 in Williams and Edge, 2001:55). According to Williams and Edge, the two technological determinist arguments claim: (1) the nature of technologies and the direction of change are unproblematic or predetermined by factors like 'inner technical logic' or 'economic imperative', (2) technology has necessary and determinate 'impacts' upon

work, economic life and society in general. The classic work of McLuhan tells us much about technological determinism in media studies. McLuhan and Fiore put it as follows:

All media work us over completely. They are so pervasive in their personal, economic, aesthetic, psychological, moral, and social consequences that they leave no part of us untouched, unaffected, unaltered. The medium is the message. Any understanding of social and cultural change is impossible without knowledge of the way media work as environments. All media are extensions of some human faculty-psyhic or physical (1967: 26).

The counter argument to the claims of technological determinism such as the above is that studies of new media technologies must take place in social context and must treat the mutual shaping of technology and society (Williams and Edge, 2001: 58). Technological determinism is a linear traditional model to studies of technology. This model is weak and superficial to apply in current ICT studies because it treats the invention and diffusion of technologies separately from their social and organisational contexts. According to this view, ICTs are essentially regarded as 'fixed' or 'black-boxed' at the early invention stage. Therefore, its main drawback is the ideas that fixed artefacts (ICTs) have a unidirectional impact on society, work organisation, production systems, skills and other activities. As a result, it prefers to subject ICTs only to technological analysis, ignoring how specific societies and institutions appropriate technologies for carrying out certain tasks. Unlike the linear model described above, the SST proposes an alternative, two-way or 'interactive' approach to the development and use of ICTs. It assumes that neither technologies nor societies can alter the other. It considers it worthwhile to subject ICTs to social and organisational analysis as they are being used. The essence of doing this is to open up the 'black-box' of ICTs to understand them in the social and institutional context in which they are embedded (Williams & Edge, 2001:60). The approach recognises the interdependence between technical and social inputs in ICT usage for certain purposes (Bijker and Bijsterveld, 2000:485-486 in Boczkowski, 2006:9).

In reinforcing the SST and responding to McLuhan's 'the medium is the message', Williams (1974 in Lister et al., 2003: 80-1) proposes new media technologies be

viewed from a critical perspective. For Williams, technologies include two things that McLuhan dismisses: (a) their inseparability from questions of practice (questions of how they are used and content), (b) their origin from human intention and agency. The intentions emerge within social groups when the social groups want to meet some of their desires and interests; the interests are historically and culturally specific (Williams 1974 in Lister et al, 2003:81). Williams's criticisms of the linear model of technology analysis are similar to the underlying principles of SST in the two points above. This critical approach is important to my thesis as a whole and to the data analysis, interpretations and conclusions chapters specifically.

On top of the above two early 1970s versions of ICT analysis, current trends in the field emphasise the critical examination of three important aspects: (a) the rationale for which technologies are developed; (b) the complexity of social, cultural, and economic factors which shape them; and (c) the way that technologies have come to be used for certain ends rather than characteristics of achieved technologies themselves. Theorists further point out that the three points are the directions that the mainstream media studies are taking (Lister et al., 2003: 81). This approach reinstates the peoples' power in technological innovation and use that is denied by the technological determinism school.

In his book 'Emerging Media', Boczkowski (2006: 9-10) uses the SST model for three reasons: (1) because actors engaged in innovation tend to pursue interdependent technological and social transformation simultaneously-actors concentrate on both technologies and social dynamics formed around them, (2) because the interweaving of technology and society is a continuous process, and (3) because cultural and material changes do not proceed in historical vacuums, but they are based on the legacy of earlier discourse. That is, current changes are partly based on past intentions and developments. Boczkowski's three reasons for using the SST are by implication its three strengths over the linear model. Such trends are also visible in other ICT research using SST as a model. For instance, Deuze (2003), one of the recurring names in new media research, also uses SST to locate online technologies in their social context. Because of these and other merits discussed thus far, SST seems to be a more appropriate lens than technological determinism in trying to understand journalists' appropriation of ICTs in news-gathering and processing at *Grocott's Mail*.

A further analysis of the SST model and how others justify its use in research is provided by Williams and Edge as:

Social shaping of technology highlights the importance of the form and content of technology and the reasons why they can and should be subject to social analysis. The model regards innovation as contradictory and uncertain, not just as a rational technical process of 'solving problems' in which success is dependent on the political, economic, and social processes involved in building an effective socio-technical constituency. This helps to explain why the excellence of a particular technological solution or the availability of sufficient finance to fund a development will not, as such, guarantee its success (2001:59).

I have three justifications for choosing SST as a framework. Firstly, I want to put the ICTs that I have selected for this study such as the Internet and Internet applications, computer and mobile telephony in their social and organisational contexts as discussed above. Secondly, instead of revolting against technological determinism, SST helps me to choose a position of compromise to discuss both technologies and how they are appropriated or used. In other words, I want to achieve a balance of focus on how technology and people interact in the newsroom. That in turn assists my work in taking a neutral stance from technological determinism and social determinism *per se*. Eglash et al. (2004: 773) hold that the current trend in technology studies is towards using broader social theories in analysing specific technical artefacts. The new social approach to technology study involves the simultaneous unpacking of technological 'black-boxes', meaningfully locating technology in social, cultural, and economic contexts. Thirdly, it is the most synthesised and developed framework to draw on. Choosing a coherent theoretical framework for researching ICTs and journalism poses some challenges. In support of this view, before proposing the SST as a model to study new media, Lievrouw and Livingstone (2002) hold that a quick visit to a bookstore online or offline will prove the scattered nature of new media related research and scholarship. They dubbed that problem as 'balkanised literature'. As result, authors tend to choose to borrow or invent different models. I

faced the same problem of balkanised literatures. I dropped one theory after the other to choose a suitable one and finally selected the SST. The theories that I have pondered and dropped include information society theory, technology diffusion theory, and technology acceptance model. Some of them are too general while others are unsuitable for my research problem for various reasons.

2.4 Literature review

2.4.1 The significance of Internet and Internet applications

2.4.1.1 The Internet

Although *Grocott's Mail* journalists have access to the Internet and use it sometimes, the term 'Internet' and its functions may be taken for granted. Technically defined, it means a packet switched network, a collection of networks with a set of protocol standards. It transmits several chunked numbers over the network. Internet Protocol (IP) is as an addressing protocol. The IP address has 32-bits source and destination address (Olsen, 2005:85). Like the Internet its applications such as email and the World Wide Web work on specific protocols. Simple Mail Transfer Protocol (SMTP) is an email protocol that provides basic protocol for exchange of email messages, while Hypertext Transfer Protocol (HTTP) is a web protocol that transmits web pages (Olsen, 2005:87).

Although these underlying technicalities are there, the fact that journalists do not have to care about knowing them will form a part of the SST analysis of the technology. Specifically, these protocols, by inference, are the inner technological logic of the Internet which can be appropriated in certain ways by non-expert users. The critical appraisal of this understanding comparing it to non-expert understanding is expected to be important. In this sense, this information is relevant to some degree. Some analysis on the network type, access, and bandwidth at *Grocott's Mail* relate to these technical issues more than anything else.

The group of networks (the Internet) have certain significance in assisting journalists in gathering and processing news. The Internet plays a pivotal role in the convergence of technologies such as audio broadcasting, video, and text and internet telephony. Further, the Internet allows journalists to search for new information and sources, to verify information, and to collaborate with other journalists (McGuire et al, 2001: 94-120, Lesame, 2005: 6). Of interest is analysing the Internet's significance in news-gathering at *Grocott's Mail*, comparing it to this general use and identifying what sets *Grocott's Mail's* own use apart.

In terms of the potential of the Internet as a technology that assists journalism, it is imperative to look at some facts and figures about the status of the Internet in South Africa. South Africa grasped the various merits that the Internet provides when ISPs began expanding in 1995. In January 2003, 270 ISPs and Internet access providers (IAPs) existed (Goldstuck, 2003/4: 61 in Lesame, 2005:177). Lesame continues to say that today South Africans are well founded in the global internet community. 298 035 South African domains (.za) had already been registered by January 2003. This places South Africa in the top 34 countries worldwide for internet hosts and registered domain names. Also, the total number of South Africans online in 2003 was 3, 28 million, one in 13 people (2005:177-78). At national level, these facts and figures paint a positive picture. As an institution in South Africa how *Grocott's Mail* is or is not making use of these merits may form part of the case study.

The implication is that, according to Lesame (2005: 118), there is a growth in South African businesses using the Internet in their daily routines. In the media sector, many local television and radio shows have their own websites and numerous newspapers and magazines have online versions too.

A new media conference was held at Rhodes University in September 1997. A report of the conference shows the importance of pioneering spirit and technology adoption in South Africa. There were optimistic views that technology will be 'the backbone of the African renaissance', and that it would help Africa to 'leapfrog' into the twenty-first century (Quinn, 1998a). The main issue during the conference was the digital divide in South Africa. The conference highlighted that the divides in the possession of technological gadgets were the main hindrance to adopting technologies as much as

desired. Despite that, participant scholars explored possible uses of technology in journalism in South Africa. They believed technology would contribute to public dialogue and democracy, help news organisations to exchange news, help generate profit from web ads, and help journalists do research and reporting (Quinn, 1998a:124-126). The strength of Quinn's work, in term of journalism, is that it identifies the digital divide as a constraint to ICT adoption and superficially speculates on certain uses in media context. However, it focused so much on the digital divide that it overlooked other factors that can limit technology usage such as skills base, appropriation and organisational culture, *inter alia*.

Some new media researchers in new media technologies focus on the issue of whether the use of the Internet has transformed news-gathering and processing. They discuss the advantages of the Internet for both online and print newspapers. Deuze (2003:203) discusses the empowering consequences of the Internet because of the key characteristics of online journalism: hypertextuality, interactivity and multimediality. He argues that the application of these key features have effects on the type of journalism produced on the web, and the effects link with the broader and deeper changes and redefinition of journalism and its culture as a whole. He explicitly notes that the Internet affects journalism in two ways: its introduction into the newsroom on the desktops of journalists, and its creation of online journalism. Robinson (2006: 844) in a review of a book on the Internet, states that editors are taking advantage of the Internet's technological attributes of interactivity and multimediality in a way that transforms the shape of news. In addition to assisting reporting, the Internet also facilitates community building through online newspapers (Robinson, 2006:845).

When discussing digital news-gathering and processing, examining the recurrent key features of the Internet is essential. To clarify the concepts, it can be worthwhile to treat each of the features mentioned above. They are also important when we talk about the digital media in general. According to Pavlik and McIntosh (2004:14-18) multimediality, interactivity, automation, and 'bits' are key elements in digital media. Firstly, multimedia refers to combining various media 'types' into one package. Putting photographs with text, combining moving pictures and sound are examples of multimedia. Second, interactivity in computers refers to what the user is able to do with certain applications and programmes. All kinds of user inputs, including typing

commands and clicking the mouse are forms of input interactivity. Examples of output interactivity include displayed images and texts, printouts, motion video sequences, and sounds. McIntosh and Pavlik (2004: 14-18) also say that the definition of interactivity in media is highly contested and there is not a consensus among experts. Third, automation refers to the ability of online media to be personalised, or to provide user-specific information. It assists journalists in that the users can specify what kind of news or information they want based on several factors or criteria selected such as zip code or simply based on automatic tracking of users' web viewing habits. Fourth, ethereal quality or bits refers to the fact that digital media is made up of representations of 1s and 0s. On offline physical media such as CD and DVD, information can be stored in forms of bits. In this connection, the authors hold that the digital and the online media have social implications in that they continue to change the media itself and the consumers of media products (2004:181).

On top of these characteristics and the networked nature of the Internet, the invention of the world wide web has made it possible for the unlimited distribution of online publications with little cost or expertise. Tim Berners-Lee, an MIT researcher, invented the web in 1991. He tells us that the initial Web opened with an almost blank page whereas in few years there were several billion Web pages on the Internet. The significance of the web to journalism lies in the fact that it brought about the most fundamental shift in human communications since the invention of the printing press five centuries before (McIntosh & Pavlik,2004: 185-6; Olsen 2005:117).

Similar technological developments that have made internet communications easy and accessible to mass users include the creation of Internet Protocol and graphical web browsers. First, Transmission Control Protocol (TCP) was created in 1974 by Vinton Cerf with the significance of its being a part of the main protocol for the Internet. It also led to the introduction of the word "Internet". Second, the first graphical browser, Mosaic, was invented by Marc Andreesson. It provided graphical user interface for computer users with Macs or Windows PCs. Later in 1996, Microsoft created Internet Explorer (IE) which remains the dominant browser up to now (McIntosh & Pavlik 2004-186-87).

Talking about browsers here is important because it is difficult to imagine web pages being displayed without them when accessing the Internet. When one talks about Internet speed and security, the type of browsers that are used needs to be discussed. More than its inner technical logic, the interest here is in the historical evolution of browsers as products with newer ones having more attractive, secure, environments that can be organised and reorganised by users into multiple new tabs or windows.

The key features of the Internet empower the users, playing a role in the 'transformation' of the public sphere. The concept 'public sphere' is a very complex idea that has been historically evolving. It lends itself to different interpretations. The term mainly means the coming together of private people in informal social settings and in turn forming the public sphere where to discuss the power-relationship between authorities and the populace (Habermas, 1989, T. Burger, Trans.). They then form a new informal group-behaviour relinquishing their formal identities as businesspersons, professionals and politicians in unrestricted settings. In the presence of a large public body, the new channels transforming the public sphere include newspapers, magazines, radio and television (Durham & Kellner, 2005: 104). Now added to traditional media as channels of public dialogue is the Internet where the constraints of meeting in the physical sense of the term have been overcome. Most importantly the Internet as opposed to the traditional media allows a two-way interaction between media and people, people and people, and people and political authorities. The concept of the public sphere is more relevant to studies of audiences' use of ICTs rather than journalists'. This concept may be useful when analysing how journalists interact amongst themselves in situations of news-gathering. It is impossible to follow this concept in this research although one can consider it in future research.

Journalists can obtain contents posted by the audience especially in technologically advanced newsrooms (Deuze, 2003; Mudhai, 2004; Robinson, 2006; Thornton, 2001). Civil Society Organisations in Zambia and Kenya use ICTs for plurality of view points and multiplicity of actors, finds Mudhai (2004). He also points out the emphasis on contextually studying ICTs with the assumption that ICTs supplement but do not supplant existing socio-political networks and face to face communication. Thornton (2001) outlines some of the potentials of the Internet in facilitating public

dialogue and democracy. The most prominent ones are (a) enabling small interest groups to find and communicate with each other, (b) requiring fewer resources for communication, (c) promoting plurality of views, (d) interaction between Websites and audiences, and (f) formation of online communities. The fact that one is connected to the Internet does not guarantee that there will be a revitalised public sphere. The potentials of the Internet are contingent on the power structure in a society. Governments and corporations have a significant influence for its realisation (Thornton, 2001).

Despite the Internet's ability in facilitating computer-assisted journalism, Lesame warns against its counterproductive effects. This happens when workers engage in communication activities that wastes the time of a company. Other negative consequences include the homogenising effect of global culture on the local, the vulnerability of children to internet pornography, hacking and fraud and other anti-social behaviours (2005: 210-214).

2.4.1.2 Electronic mail (email)

Electronic mail is the most widely used feature of the Internet with more than a hundred million users world wide by 2001 alone (McGuire et al. 2001:95). They indicate that email is the first and easiest thing people learn when they go online. It has the effect of 'hooking' them on to online technologies. Despite that, the way in which email has transformed how people interact can be easily overlooked (Pavlik & McIntosh, 2004:188). From a new media perspective, a number of authors suggest that email has many useful functions in computer-assisted journalism. The prominent ones are the dynamics that it creates in both individual and group communications. Journalists use it to file copy to editors, to collect copies of press releases, letters, sports results, weather reports, and freelance contributions. More importantly, email communications have the capacity to bridge time and space differences between senders and receivers. They assist journalists in finding and interviewing experts and non-experts online. In this sense email is used as a research tool (Quinn, 1998b:52, 53, 61; Boczkowski, 2006:10; McGuire et al. 95-115).

McGuire et al. (2001: 95-115) present some highlights of the uses of email communications in journalism. Journalists use email to:

- introduce themselves and request information or interview
- verify information with an informant
- keep in touch with sources
- receive updates, alerts and news releases
- contact a Webmaster to check for a new publication

However, the writers warn that there are disadvantages in using email for research. The most serious one is when a journalist does not verify the direct authorship of the message. In this case, a journalist may run a risk of quoting a message from people with pseudonyms playing a hoax online. The other danger in an online interview is that when a journalist sends a list of questions to an interviewee, the answers will not be the same as they would be in face to face communication. Therefore online interviews may not produce a revealing interview.

It is worthwhile to still delve into the underlying technical merits of email technology, in light of its place in computer assisted reporting. According to Olsen (2005: 99-100) email technology has two major underlying aspects which are also its merits. First and foremost, email is in principle an asynchronous technology; that is, **A** can send a message to **B** when it suits him or her. Messages sent do not interfere with the schedule of a person. That is a basis for an efficient communication. A standard email is asynchronous but as exception to that it can also be set up for simultaneous communication via its chat features. Second, email is text-based. The merits of email as a text-based technology are briefly presented as:

Text is standardised, can be presented on any type of display and printed on any printer, does not require much screen space, and can be created, edited, and represented efficiently in any computer. Text does not require high band width, and email can therefore be used with any type of equipment or connection. In an age when we marvel about novel technologies such as powerful processors, high-definition TV, interactive video, and visualisation it is easy to forget the flexibility, expressiveness, and compactness of text (Olsen, 2005:99).

Supplementing Olsen's technical descriptions of email technologies, McGuire et al. (2001: 95) say that email communications are cheaper and faster than, for example, long distance phone calls.

Although it is difficult to tell whether journalists are using email because of their awareness of its underlying technical advantages, Garman (2006:96) suggests that email is used to make appointments and as an interview tool at *Grocott's Mail*. But Garman does not indicate how and with what depth this technology is socially appropriated in the news-gathering and reporting processes at *Grocott's Mail*. While enabling the journalist to gather and process news, email also empowers the audience to interact on social, political, and economic issues that are discussed publicly in South Africa (Lesame, 2005:210).

2.4.2 Mobile telephony

Interests in researching the impact of mobile phones and other digital ICTs such as the Internet, and the World Wide Web flourished in the 1990s following the inventions and further improvements to these technologies (Liu, 2006:701; Mudhai, 2004:313). Liu further mentions and criticises the attempts to explore the impacts of new media through survey research. He says a descriptive study overlooks critical or theoretical analysis of the situations journalists face (2006:700).

Research indicates that there is a wider penetration of cellular phones than landlines and computers world wide. By summer 2005, there were 1.5 billion mobile phone users world wide. This puts the coverage of mobile phones at 25 percent globally. This growth is far more than cellular phone companies have expected. Africa, presently with over 6 percent of global mobile phone possessions, is predicted to be a potential growing marketplace attracting cellular phone industries and suppliers (Gordon, 2005:5). Compared to computer technologies, mobile phones are viewed as more useful devices in connecting the less privileged population to the world of digital information. They can use it for voice or data services (Austrin & Farnsworth, 2005:15).

In African countries, Mobile ICTs (MICTs) are looked at as a panacea for digital divides because of their high penetration as discussed above. Besides bridging the rural-urban divide, there are some predictions and hopes that cell phones can be used in development activities. An instance of farmers using them to negotiate prices in Africa exists (Lesame, 2005: 8). Nonetheless, whether or not the rural farmers or, for that matter, even journalists in Africa can comfortably manage or whether there is a need for training in communication technologies including cellular phones is not mentioned often. Taking cell phones as antidotes to every problem Africa has, seems to be in line with what Williams and Edge (2003:55) view as a reiteration of governments' and companies' technological deterministic rhetoric that ICTs necessitate particular social changes. This view disregards the contribution of the grassroots to the decisions that are relevant to them. As such, it is a top-down approach to study the impacts of ICTs.

Regarding mobile phones, Gordon (2005:6) identifies two research focuses: industry and academic. Firstly, the writer states, "The best thing for telecommunications is that the user by and large provides their own content. We speak to each other or text each other and all the provider has to do is give us a network" (2005:6). The industry is also concerned about cultural products that can be monitored by the introduction of Digital Rights Management, DRM. What cellular phone companies are doing is that they use in-built technology to provide cultural artefacts and monitor users to pay for the services. DRM helps companies and copyright owners to identify and sue violators of copyrighted products. For instance, copyright sales of ring tones and downloading of video clips are among the services. Secondly, mobile phones attracted academic focus that goes beyond researching the traditional perception of the phone as household equipment much like equipment in living rooms. The view with which this research wants to investigate the application of mobile telephony in news-gathering and processing is consistent with the second focus (academic focus). Thus, as an ICT, mobile phone usage has consequences worth charting both from the side of industries and consumers.

Austrin & Farnsworth (2005: 14) distinguish two important features of portable sound technologies. Firstly, cellular phone technologies are sound technologies. Sound travels making new social connections possible. The mobility of phones has an impact

on how private and public spaces are managed. To this end, portable sound technologies mobilise space and social arrangements. Secondly, mobile phones are hybrid devices; they can also serve as audio, image and text technologies. These integrated functionalities give the user flexibility. According to the authors, there are predictions that mobile technologies will become an increasingly integrated part of contemporary societies. What they do goes beyond creating connections and rearranging private and personal spaces. They do mobilise the people who accept them (2005:20).

A study done on mobile communication usage of Finnish youth situates the study of mobile technology in social context. In this case, the main attraction of mobiles for youth is the cell phone's text -based channel, Short Message Services (SMS). SMS is a text-based message service that can be sent from a mobile phone or the World Wide Web to another mobile phone. For Finnish youth, the mobile phone is the most important communication device in their lifeworld. Its social significance to them is that they use it to manage their affairs and to link themselves up with their immediate social groups; that is, friends and families. Beyond technicalities, mobile phones are used to help construct social identity, aid in distinguishing social groups or peers and their communication behaviours, and serves as tool for representation (Oksman & Turtiainen, 2004:335-337).

Following the introduction of third generation (3G) phones, internet companies have developed a vested interest in extending internet services beyond desktop PCs and laptops to mobile phones. The media also has an interest in distributing its content on the phone (Gordon, 2005: 5; Lillie, 2005:46). This phenomenon is known as 'dispersed computing'. Lillie dubbed the effect it brings as 'the colonisation of lived spaces'. For researchers this move will pose challenges of how to think about the role of media, culture, and technology in society.

With the notions in the above paragraph comes the concept of 'mobile computing' and its infrastructural requirements. Following is a brief summary of mobile computing according to Olsen (2005:149-152). Based on the successes of mobile technologies, the industry has been developing wireless applications. These applications are referred to as 'the killer applications', Wireless Application Protocol

(WAP). Their function is to define a protocol for accessing the Internet on mobile phones, allowing them to be used as a terminal for email and web applications. So, the prospect is that every handset owner will conveniently access information without the need for a desktop PC or even a laptop. This development is crucial for the increasingly converging media. The limitations of WAP technology include its being designed for a small display and limited input capabilities, as cell phone keys and screens are too small for inputting and displaying information. While the above is the envisaged general scenario of mobile computing, this study will remain critical of whether these things really will be possible in a small-scale African newspaper such as *Grocott's Mail*. Whether the brands of cell phones in the hands of journalists working for the company are similar to these ones will also be considered. However, the main emphasis of this study is to see how mobile phones are deployed at basic levels in news-gathering.

Despite the interconnecting function that they serve, mobile phones are not without negative criticisms. Mobile phones could also be surveillance devices for good or evil purposes. Mobile phone eavesdroppers with radio scanners could monitor private conversations (Arceneux, 2005:23). Some view mobile technologies as devices that give mobile phone corporate businesses the power to control consumers' cultural behaviours. DRM is one such technology that is employed by mobile industries to regulate users' ability to use a media product or cultural text. It makes users pay for copyrighted products. Users who violate this can easily be tracked down and charged with copyright law violations (Lillie, 2005: 43). Despite that, regarding how companies project positive images about themselves regarding handsets, Lillie says, "the handset is proxy for the mobile citizen whose subjectivity is transported through the transaction of exchange mediated by a series of technologies, hardware and software associated with the network apparatus" (2005: 43)

2.4.3 ICTs, multi-skilling, newsroom culture and language

2.4.3.1 ICTs and multi-skilling

In his book chapter aimed at assessing knowledge and asset management practices at *Grocott's Mail*, Garman (2006: 97-99) provides highlights of existing technologies

and their patterns of usage. According to him, all the computers in the newsroom have been upgraded currently and they are personal computers running on Microsoft XP pro. The computers are networked and share network resources such as printers (A4 and A3). Open Office Software which includes word processing and spreadsheet programmes are installed on them. The design machines are loaded with various types of Adobe's creative suit software. The system at *Grocott's Mail* uses Windows server to store current working documents (copy for editor, pictures, and adverts, etc.), and archived documents. The folder systems are incoherent and messy, however. Journalists use the Internet, email and cell phones in their work. Intranet and content management system are non-existent. He suggests that because of their unstructured nature, the existing folder systems are confusing and inefficient (2006:111). Thus, these are highlights of the present technology profiles at *Grocott's Mail*. This study does not, however, adequately contextualise the technologies in depth nor does it deal with ICTs used in news-gathering and processing clearly. This can be known from the goals of the study mentioned above. This lacuna can be used as a springboard to investigate the specific ICTs this study proposed.

In similar other newsrooms, computers and computer networks are adopted in the newsroom for their news-gathering tools according to Garrison's (2001) study of the diffusion of new technologies. He finds that the Internet technologies which are most commonly adopted for use in the newsroom include electronic mail, file transfer protocol, bulletin board systems, audio streaming, push technology, audio and video conferencing and internet telephony. Journalists resort to these technologies for the purposes of contacting sources, finding people, conducting interviews, backgrounding stories, working with other journalists at distant locations or bureaus, identifying ideas for stories, and interacting with readers. This finding reflects the realities of technology usage in U.S. newspapers from 1994-1998.

Although different writers mention the merits of the adoption of technology from different theoretical and practical points of view, some observe the persisting reluctance to use technology in the newsroom for different reasons (Garrison, 1998; Reich, 2005). Differences in ages and skills are some of the reasons for journalists' reluctance in using ICTs. During early phases of adoption, journalists tend to be 'tentative and fearful about their computer', Garrison (1998) says. He dubbed this

phenomenon 'technophobia'. Mostly older journalists are said to have technophobia. To overcome it, he suggests the importance of training in utilising CAR tools such as spreadsheets, databases, internet searching, word processing, pagination and desktop publishing. Training assists in bridging the digital divides within the newsrooms. Besides training, the study points out that journalists and managers need to learn to change their attitudes about technology application. As a sign of their refusal to cope with new technologies, Garrison (1998) says some older newsroom managers give up without trying to learn the new tool, and often apply for job reassignment elsewhere.

In a similar study of the application of technologies in news-gathering in Israel, Reich (2005: 554) suggests two news phases where technology is employed to varying degrees. In the news discovery phase, reporters learn for the first time about the existence of potential news items. Then they use any available technology, old or new, to begin their work process. Because of that, change in technologies utilisation is prominent in this phase. However, in the news-gathering phase, a phase when journalists look for details, reporters tend to be very selective in their use of technologies of production. They try to control the incoming information. Whereas non-mediated contacts are declining in the newsroom, mediated contacts are on the rise. But still the change from face to face non-mediated communication with news sources to electronic communication is moving at slower pace. As such, technology has not substituted non-mediated contacts. Therefore, Reich (2005: 564-566) finds that despite major changes over time in ICTs, there are relatively minor changes in journalistic 'methodology' of production. Succinctly, the writer concludes, in terms of the Israeli press, the role played by technology in news information production is a conservative revolution rather than a radical and rapid one.

ICTs in both the converged and non-converged newsrooms are in use. Many writers believe that the usage of ICTs has major implications in terms of the structure of the newsroom, multi-skilling, and newsroom culture and language. In relation to this study, it is worth treating these issues at length supporting them with research and published interviews.

Pavlik (1996: 5) classifies the consequences of new media technologies into two. First, the intended consequences of use of ICTs for the communication worker are

greater efficiency and flexibility. Second, the unintended consequences are side effects of ICTs including a rising level of loss of privacy, and an inability for social institutions to keep abreast with technology. He mentions desktop publishing, speech recognition and synthesis technologies for persons with disabilities as examples of technologies that positively affect how journalists do their work. For him ICTs have both opportunities and challenges for the newsroom. The advances in various telecommunication technologies have the advantage of improved efficiency, speed, greater access, and new skills. In contrast, the challenges are the demands new technologies place on journalists to work on multiple platforms. This means those who work in the traditional media require new editorial and design skills (1996:7).

A huge national survey of editors, news directors, and news professionals conducted in the U.S.A in 2006 aimed at assessing the implications of convergence technologies for staff upgrading, production quality, compensations for multi-tasking, and who is benefiting from convergence. First, the findings for 'working across media platforms' indicates that there is no significant relationship between the number of years editors worked for media and the number of media they had worked for. The opposite is true for news professionals; they tend to work for more platforms than their editors. Third, regarding which skill journalists need most, editors and news professionals responded that despite technological change, learning how to write good stories is still the top priority and writing is a very basic skill for journalists to learn. Third, findings for production quality showed a huge opinion divide with 38 % of editors and professionals saying technologies reduce quality, with 40 % disagreeing strongly. The result showed no significant difference. Fourth, journalists believe in compensation for content they produce for multiple platforms. Media companies benefit the most from convergence of technologies and skills. The general public and news professionals benefit less. While media convergence is still in its formative stages, content convergence, technology convergence, and role convergence are common both in converged and non-converged newsrooms (Huang et al, 2006: 84, 89-95).

Berger (2001:87, 96) maintains that the degree to which multi-skilling is required is based on the degree of existing convergence. He takes the issue of multi-skilling as debatable. Beyond the dictionary meaning of, 'the coming together of two or more technologies', the meaning of convergence can be explained by examples: When a

newspaper journalist appears in front of a TV camera, and when a TV journalist has a column in a newspaper that is convergence. When print photographers shoot videos and when the TV ones take still pictures that is also convergence. Berger says as media houses service more and more platforms, the demands on journalists' skills will continue to rise. His emphasis is on the problematic nature of every journalist being required to do everything at once.

In his research about the negative impact of ICTs on news professionals, Liu (2006: 700) found that ICTs have substantially affected the required skills in the work place. Because of the consequence of requirements of multi-skills or technical know how, journalists are unable to focus on interviewing and reporting. The negative consequence is noted elaborately in the following text:

Today, each reporter has to write more words, and finish stories more quickly, and they have to handle responsibilities that formerly belonged to other workers, including typing, proofreading, and even creating hyperlinks on websites. Supervisors utilise new communication devices, which enable instant interaction, to increase their control over the work processes of reporters. As a result, the introduction of ICTs in the newsroom has further blurred the boundary between reporters' leisure and work time and consequently degraded their working conditions (Liu, 2006: 709).

These are issues that play into the debates of multi-skilling parallel to the positive impacts of ICTs in making journalists' lives easier and faster. As one of the negative effects of multi-skilling, Liu is also concerned about the trivialisation of journalists' work as they are stretched to meet deadlines for multiple outlets. As ways to overcome such problems, Dupagne and Garrison (2006:249) place the solutions of both maintaining quality reporting and having diversified skills within the ambit of journalism training. While journalism students should be trained in all platforms, there should be one platform which they must be best at. They propose that writing and reporting should remain a fundamental element for all platforms.

Some research has found that the usage of CAR and the Internet in reporting is unwelcome by some journalists and editors. In part this comes from the immediate

nature of the Internet, difficulty in verifying the identity of online users, concerns of how to deliver stories in appropriate format to various platforms (Deuze, 2003:206). ICT usage in news-gathering must involve considerations of format compatibility for the platforms.

According to some surveys, the usage of ICTs in journalism creates a strong demand for journalists to diversify their skills for all platforms. Whether or not the technology usage has led to differences in ways in which communicators view their roles is one of the concerns of media researchers. In an American national survey (N=655), Cassidy (2005) examined the professional role conception of print and online journalists. The roles that were used as variables include interpretive/investigative, disseminator, adversarial and populist mobiliser. He found that the print group perceived the interpretive/investigative role as significantly more important than the online group. There were no significant differences between the groups in the adversarial and populist mobiliser roles. Another comparative study of German and the American online journalists suggest that reporting is not downplayed as result of the introduction of technologies as journalists spend more and more time on writing, online research, news selection, and the editing of news material from agencies and public relations (Quandt et al., 2006:177-8). What we see from both is that in terms of role conceptions of journalists, there is a degree of similarity between the traditional and new media journalists. Despite the suggested similarities, it is not also uncommon that some predict that because of technology use tomorrow's media practitioners should be different from the ones working today. The 'new breeds' are expected to make multiple media news judgements, to be trained to make use of news-gathering ICTs, and have flexibility and team spirit in their work (Zoc, 2001 in Deuze, 2003: 207).

2.4.3.2 Newsroom culture and language

It has been argued above that ICTs have certain positive and negative consequences for the way journalists do their job. Multi-skilling is mentioned to be one of the freshest research areas which academics in media are focusing on. Now research related to new media culture and ethics will be discussed thoroughly. I will critically explore the kinds of new media culture that have emerged as a result of using ICTs.

The issue of ethics will also be raised in relation to the uses and abuses of ICTs in journalism.

The usage of technologies to assist journalism entails that old rules and laws of communication will change affecting both the technology and its users. This change creates a departure from old ways of doing journalism. Marshall (2004:1) expresses that as:

With every change in the way we communicate in our culture there is a new struggle over meaning, significance, knowledge and power. Old rules and orders cannot be applied perfectly under the new regime of communication... New forms of communication are only partially determined by their technology and are shaped from social and cultural conditions, and the various manners in which cultural expression, and intentions are conveyed.

Marshall gives us the novel and book as examples of cultural forms that are equally defined by both technology and cultural expressions. The novel and book are dependent on technologies of mass reproduction, mass printing, and mass dissemination. On their cultural side, the novel and book are based on narrative of story-telling, the expansion of literacy, and the emergence of printing in local languages. This idea of the interdependence of technology and the users is rooted in the SST school of thought (see section 2.3).

Regarding changes in newsroom practices and culture, Dupagne and Garrison (2006:247) present the new culture formed around the usage of new media technologies. Jobs have changed for communication workers. The respondents in their research testified that it is not only the jobs that have changed, but also new relations amongst journalists have happened gradually. Consequently, there is an increasing sense of collegiality amongst journalists. As a result, journalists collaborate in covering and sharing major stories as well as other daily routines. This does not, however, mean that all journalists have changed their traditional working habits uniformly because of ICTs. As elsewhere, the digital divide is manifested amongst newsroom workers. The result is the emergence of groups speaking 'different languages' in the same newsroom. Some speak in esoteric vocabularies of new media

technologies while others speak the languages of traditional media. This conflict of languages and culture within the same newsroom has attracted great attention from some new media researchers. The usage of ICTs in the newsroom faces language and culture-based challenges (Silcock & Keith, 2006: 611).

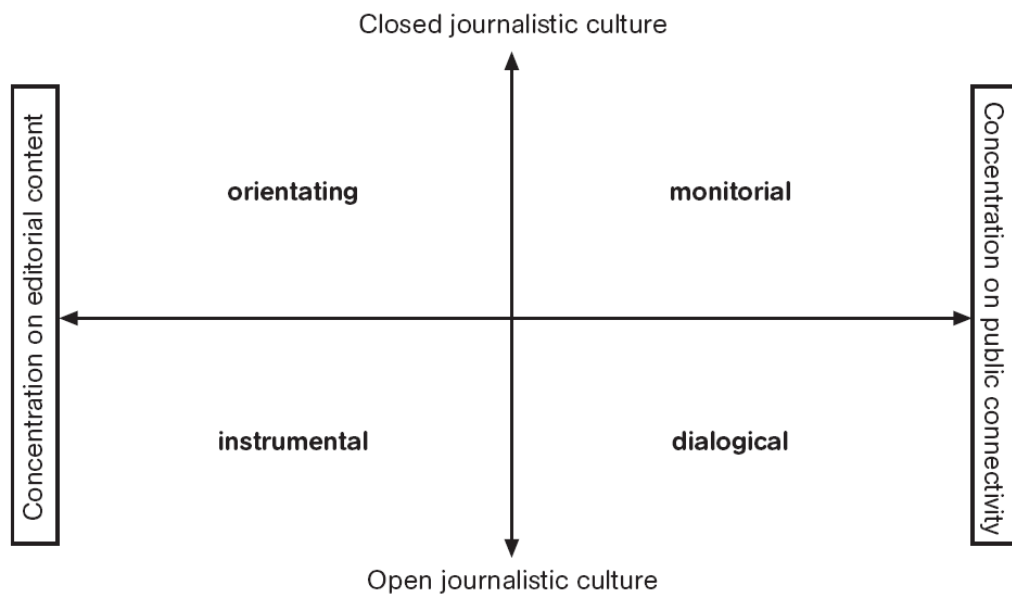
To make it clearer, it is valuable to discuss the cultural-linguistic divides in the newsroom based on research findings. The cultural clashes can come from different routines that are embedded in various media platforms including newspaper, online and television. Another manifestation of culture is in language. Research suggests that this creates ample room for conflict over different terminologies used by print, online and broadcast journalists. For instance, for a newspaper and TV producer the word 'budget' means different things. For the former it means a name of a meeting where stories for the next newspaper are discussed. For the latter, it means an amount of money or profit (Silcock & Keith, 2006: 612). While unshared languages could be hindrances to the overall operation of the newsroom, it is found that shared languages would promote professional culture in the newsroom (Levy, 1990 in Silcock & Keith, 2006:612).

If not handled well, the cultural differences produced by the different routines of different platforms would lead to numerous problems including, but not limited to, stereotyping, conflicts over staffing, time management, and news flow, all of which can limit the effectiveness of convergence. For instance, look at what dangers exists in the type of stereotypes between newspaper and TV journalists: "Print journalists think broadcast journalists have 'shorter attention spans', are 'much quicker moving', 'impatient with extraneous details', and 'looking for pictures to tell the story'. Meanwhile, broadcast journalists think of print journalists as 'arrogant, behind the times, boring', et cetera" (Silcock & Keith, 2006: 620). These are the contesting types of cultural expressions in the newsroom surrounding ICTs.

In terms of journalistic cultures involving new media technologies, Deuze (2003: 217-219) introduces four types of journalism functions generically: orientating, instrumental, monitorial and dialogical. He emphasises monitorial and dialogical journalism to compare and contrast closed journalistic culture and open journalistic culture (see figure 1). He takes 'orientating' as synonymous with 'monitorial' in

function. The mainstream media is likely to work in a comparatively closed journalistic culture. That is, structure, audiences, and other stakeholders in the news are moderated and filtered to meet the interests of reporters and editors (Weischenberg & Scholl in Deuze 2003:17). Content is oriented towards ‘constructed’ audiences. Monitorial/orientating is the function that is prominent in this form of journalistic culture. In contrast, in open journalistic culture, journalism is considered instrumental in satisfying the wants and needs of the audience as journalism caters for people as news consumers. This kind of journalism is more open because it is expected to be interactive, responsive and accountable. For example, open source journalism promotes interaction between journalists and the audience online. Open source journalism refers to users’ contributions of stories and story ideas to newspapers electronically. The audience is empowered to assist in journalism using ICT resources. It lays increased emphasis on ‘knowing’ and ‘using’ the audience as a journalist. The following diagram illustrates closed and open journalistic cultures:

Figure 1: Type of journalism between content and connectivity



Source: Deuze 2003.

2.5 Conclusion

The chapter opened with an introduction, defined ICTs, presented the theoretical framework and literature review pertinent to the goal of this research. To those ends, firstly, the chapter presented SST and justified it as a theoretical lens for the study. In doing this, how SST theory developed out of the critiques of technological determinism, which is a linear model, has been assessed. The advantages of the SST as an interactive model that enables technologies to be studied in their social and professional contexts were analysed. Secondly, based on a topical body of knowledge, it discussed what is known and what is not known in terms of the three ICTs that this study focuses on: the Internet and some Internet applications, electronic mail, and mobile telephony. The chapter tried to focus on literature that deal with how these technologies are appropriated or used in news-gathering and processing. At the South African level, I found some literature in the general area of new media. My difficulty, however, was that Afrocentric literature that is specifically related to my topic were scant in number. So, I had to cover similar grounds from elsewhere. Informed by the research questions, the review was organised thematically in sections. In each section, results were synthesised and areas of controversy were critically addressed. To give the technologies a social dimension, I later dealt with fresh topics such as ICTs, multi-skilling, and newsroom culture. Then, I had separate discussions for new media culture and language, with respect to technologies of news-gathering and processing. In short, the chapter presented the theoretical framework and the literature review based on refereed research in the field.

CHAPTER THREE

CONTEXTUALISATION OF *GROCOTT'S MAIL*

3.1 Introduction

The objective of this chapter is to provide the following: the socio-economic conditions of Grahamstown and the historical contextualisation of *Grocott's Mail*. These areas are too broad to exhaust because of the limited scope of this research. Therefore, attempts will be made to narrow each of them down in terms of the ICTs dealt with in this research and in terms of key developments affecting them.

3.2 Socio-economic conditions of Grahamstown



Fig. 2: Map of the Eastern Cape (Makana Municipality)

Grahamstown lies about 125 kilometres north-east of Port-Elizabeth in the Eastern Cape. It is home for an estimated population of over 120,000 (Probyn, 2006:395; Holleman & Paterson, 2002: 38). See the geographical location of Grahamstown in figure 2 above.

Grahamstown is one of the oldest established towns in South Africa, having been founded as a military garrison in 1812 between the Cape Colonists and Xhosa

(Hammond-Tooke, 1970: 26; O'Meara, 1995: 12). The city was named after Col John Graham who was appointed by the colonial government of the Cape Colony to enforce and expand its eastern frontier into the Xhosa nation. There has been a strong British influence in building, institutions, and atmosphere ever since (O'Meara, 1995: 13). The Settlers' Monument, a huge hilltop memorial to the 5,000 British settlers of 1820-21, forms Grahamstown's claim to be the capital of 'settler country' in the Eastern Cape (Lemon, 2004: 278). Lemon continues to say, 'the Anglican Cathedral and the English-medium Rhodes University, at opposite ends of High Street, symbolise both the 'Englishness' of Grahamstown and its functions as an educational and cultural centre' (2004: 278).

One can view Grahamstown all at once from the hilltop Settlers' Monument because of its physical location in a valley, and its relatively small size. According to Lemon (2004: 28), usual to an 'apartheid city', the African townships were and are prominent features of the landscape visible from many 'white' parts of the city. Lemon (2004:28) describes three distinct settlement types in Grahamstown as marks of the legacy of colonialism and Apartheid. Firstly, former all-white suburbs in the west are well treed and relatively spacious. Secondly, the former coloured area forms a transitional belt between the mainly white part of the town and the African townships. Thirdly, contrasting with western Grahamstown, beyond the older African townships- the Fingo Village, Tantyi, Makana's Kop- the more recent informal and formal African settlements extend three five kilometres to the east. A dense mass of buildings and shacks, a few trees and spaces, only a few schools and sports facilities characterise the townships and there is a higher degree of poverty there as opposed to the relative affluence in the west. The Apartheid government justified these racially segregated patterns of settlement through the various Group Area Acts that it passed from 1950 on. The purpose of the group area acts were to enable the state to re-zone land in order to move people into racially segregated areas and freeze their rights to movements and property (Holleman & Paterson, 2002: 24, 29).

Historically, starting with the frontier war of 1819 between Xhosa warriors and the colonial British troops, Grahamstown was the stage for many battles and confrontations between whites and blacks until the end of Apartheid in 1994 (Grundy, 1994: 388,395; O'Meara, 1995: 84-85). As in other cities in South Africa,

Grahamstown experienced a white-black confrontations spearheaded by the youth, starting in 1977 and continuing intermittently into the 1980s (Manona, 1988: 96). As in many South African cities and towns, the new chapter of Grahamstown opened with the demise of Apartheid and the ascent to power of the democratically elected ANC in 1994 (Gillwald, 2001: 5; Holleman & Paterson, 2002: 44).

Economically, with 60-70 % unemployment, Grahamstown is one of the poorest towns in the Eastern Cape (Lemon 1994: 279; Manona, 1998: 96). Survival, for many families, depends on old age pensions and informal employment (Lemon, 2004: 279). Lemon and Manona attribute the widespread phenomenon of poverty and unemployment to the legacy of apartheid as well as growth in population without a parallel economic growth, which they say is common to all towns in the Eastern Cape. The other factors exacerbating the poverty and underdevelopment of Grahamstown include the town's lack of industrial establishments and the low wages for the informally employed (Roux & Leger, n.d.; Hammond-Tooke, 1970: 26; Manona, 1988:96). The common theme across the ideas of some writers of 1960s, 1970s, 1980s, 1990s, and 2000s, summarised here describing the socio-economic conditions of Grahamstown, is the observation that underdevelopment and poverty remain serious problems of the city.

Presently, this former frontier town and apartheid city seems to be mainly concerned with expanding the frontier of knowledge in many different ways (O'Meara, 1995: 12). It does this through Rhodes University and other colleges and several other private and public schools. On the other hand, there are many township schools with low pass-rates and poorer facilities. These educational institutions along with many legal, cultural and religious institutions form the economic pillars of today's Grahamstown (Holleman & Paterson, 2002: 15). *Grocott's Mail* as a print media institution is embedded within the socio-economic conditions of Grahamstown and gets its audience and sources from the eastern townships and the western suburbs. Therefore, the social history of the town can positively or negatively feed into and shape the stories that are gathered from the town.

3.3 History of *Grocott's Mail*

This section discusses key historical developments at *Grocott's Mail* chronologically from the date of its foundation to the present. Regarding the history of *Grocott's Mail*, one striking observation is that compared to its long life span, the organisation has very little recorded history. That is why in writing the history, it was crucial to also interview some people in the organisation.

Launched in 1870, *Grocott's Mail* refers to itself as the oldest independent newspaper in South Africa (*Grocott's Mail*, 15 May 1970; O'Meara, 1995: 46). However, a history of the South African press shows that the first local publication started in 1795. Fourie's account of the 1795 publication does not specify the title of the publication. Five years later, some pioneering papers appeared. These were known as *Cape Gazette* and *African Advertiser* published on 16 August 1800 (Fourie, 2001: 35). As they were controlled by the governor, only official notices and advertisements were printed in the first newspapers. *Cape Gazette* continues to exist to date. Therefore, at least according to Fourie's account, there were some newspapers in South Africa 70 years before *Grocott's Mail*. Thus, established on Wednesday, 11 May 1870 as an advertising medium in Grahamstown, South Africa, *Grocott's Mail* can justifiably be called one of the oldest South African newspapers and the oldest surviving newspaper in Grahamstown. Now the newspaper has served the Grahamstown community for 137 years to date (*Grocott's Mail*, Friday 15 May, 1970; Interview, Vale, March 12, 2007).

3.3.1 *Grocott's Mail* under family ownership

Grocott's Mail started as an advertising medium for Grahamstown and its surroundings on Wednesday 11 May 1870. This advertising medium was then named *Grocott's Free Paper: An Advertising Medium for Town and Country*. The word 'free' was to indicate that the newspaper's first copy was distributed for free in Grahamstown and several other frontier towns at the morning markets (*Grocott's Free Paper*, Wednesday May 11, 1870). It was a four-page newspaper published once a week, every Wednesday. The paper was filled with advertisements, announcements, and events. It was hard to find news in *Grocott's Free Paper* except for the sporadic appearance of some short 'news-like' items that appeared under the column 'Local

and Colonial'. For instance, the column was used to write about the arrival of high-ranking colonial military officers from Britain to the Cape Colony or the departure of them upon accomplishing their services (*Grocott's Free Paper*, 1870, 1871). This trend continued for the two year period the newspaper was published under the title *Grocott's Free Paper* (1870-1872).

Grocott's Mail was a family owned and managed newspaper almost for a century and four decades. The man who founded this media institution, in 1870, had already had ample experience as an employee of newspaper industries first in England and then in South Africa. The title plate of the newspaper bears the family name of its founder Thomas Henry Grocott (1838-1912). Thomas Henry Grocott was not only the founder and the owner of the newspaper but also its editor until he died in 1912. Later, after he died, the brand name was maintained and the business was continued by other members of the Grocott's family.

When it started in 1870, the newspaper incorporated its senior the *Graham's Town Journal* which ran from 1831-1920. *Graham's Town Journal* was senior because it was launched in 1831 and printed on its own until 1870. The journal was forced by the colonial government to use the printing technologies the journal acquired from England to produce government presses and proclamations (*Grocott's Mail*, Friday 15 May 1970). In addition, it was an influential mouthpiece for settlers' opinions. As result, it was nicknamed 'the Settlers' Bible' (O'Meara, 1995: 145). Both the journal and the *Free Paper* hardly had editorial independence from the state and the commercial interests of colonists.

On January 2, 1872 *Grocott's Free Paper* became *Grocott's Penny Mail* with a wider goal than the single goal of serving as an advertising medium. *Grocott's Penny Mail* was described as 'an old friend with a new face' to indicate that the change was merely a change in name; the owner and the target audience remained the same. The word 'penny' in *Grocott's Penny Mail* indicated that the newspaper cost money or a penny. Under this title the newspaper was published bi-weekly, every Tuesday and Friday as is the case now. At this time, the family business saw a tremendous growth in terms of the acquisitions of new printing technologies as well as sales (*Grocott's Mail*, 15 May 1970). The editorial comment of the day depicted the change as, 'the

outgrowth of the *Free Paper* taking its stand as a regular news-sheet'. The new news-sheet was modelled on the English style straight news column devoted to provincial and other news. Inter alia, it started to cover church stories that were of interest to the public (*Grocott's Mail*, 15 May 1970).

In January 1875, evidence shows that demand for the newspaper reached a phenomenal proportion. So, in terms of its readership, the *Penny Mail* was neither free nor limited to Grahamstown and its surroundings, unlike its predecessor *Grocott's Free Paper*. It was distributed in the Cape Colony and in farther areas such as the Orange Free State, the Transvaal Republic, and to missionary subscribers in Kuruman, Bamangwato and on the Zambesi. In July 1882 the *Penny Mail* grew into a tri-weekly being published on every Monday, Wednesday and Friday (*Grocott's Mail*, 15 May 1970).

Because the business had expanded, the amount of work became too much for Mr. Thomas Grocott, and in January 1892 he entered into partnership with two of his staff members. They were William Grocott (his son) and Richard Sherry. The ownership of the firm changed to 'Grocott's and Sherry' but *Grocott's Penny Mail* was maintained as the title of the newspaper. Sherry was the only exception to the five Grocott's family who owned the newspaper one after the other. His role in *Grocott's Mail* ceased in 1931 when he died and the family once again owned the newspaper completely (*Grocott's Mail*, 15 May, 1970).

After the outbreak of the Anglo- Boer War (1899-1902), *Grocott's Penny Mail* saw a tremendous increase in the circulation of its copies. In 1899 the editor announced the circulation of the *Grocott's Penny Mail* was increasing by 500 copies daily and that there was an incredible demand at the 'London office of the *Mail*' (*Grocott's Mail*, 15 May 1970). Later, it even upgraded itself to a daily newspaper for sometime covering the latest war news. Covering war stories was an addition to the earlier purposes of the institution to serve as an advertising and mainly religious medium. After the Anglo-Boer War started to cool off, the sales of the newspaper were rapidly declining but rose again much later when the First World War began (*Grocott's Mail*, 15 May, 1970; Interview, Vale, 12 March 2007).

So far, the history of *Grocott's Mail* shows the changes that the newspaper has undergone in terms of its services in response to external factors including Christianity, colonialism and wars although it was mainly a family owned newspaper. Even after South Africa's transition to a multi-party democracy in 1994, the newspaper is said to have been a parochial one mainly serving only one section of the community, the white section, in terms of stories that it covered. This trend came all the way down from its day of establishment (Interviews, Ancer, 23/02/07; Mjekula, 27/02/07; Penney, 20/03/07; Rennie, 01/03/07; Vale, 12/03/ 2007). Describing the lack of editorial independence before the newspaper was purchased by Rhodes University in 2003, Amner, one of the initial members of the board of directors said, "*Grocott's Mail* ran short of marks of quality journalism. Five years ago journalism at *Grocott's Mail* was a joke, no editorial independence" (Interview, Amner, 10/05/07). Amner's view is that in terms of transforming the publication to a formal print media grounded in the principles of independent and critical journalism, Rhodes University's role has been pivotal.

3.3.2 *Grocott's Mail* under Rhodes University ownership

The shift in ownership from the previously bankrupt owners to Rhodes University since 2003 has been a turning point in the history of *Grocott's Mail* in terms of new ICT infrastructure, the employment of professional journalists, and more balanced coverage of all residents in Grahamstown. The previous goals of the newspaper such as serving as an advertising medium and covering religious stories, inter alia, were replaced by two new other goals as stated in article 3.2 of the founding by-laws of the David Rabkin Project for Experiential Journalism Training. These are 'to publish *Grocott's Mail* as a Grahamstown community newspaper that also serves a rich training function for the Department of Journalism and Media Studies at Rhodes University' (DRPEJ, 2003: 1). The initiative of using *Grocott's Mail* for teaching and learning journalism is modelled on the U.S.'s Columbia University School of Journalism which has a similar publication. It is believed that this way of hands-on journalism training makes Rhodes University one of many universities in Africa following similar trends (*Grocott's Mail*, 2007).

The David Rabkin Project for Experiential Journalism Training was named after David Rabkin (1948- 1985). He was a famous South African journalist and member of the ANC who was strongly opposed to the Apartheid system (Interview, Vale, 12/03/07). The commemorative plaque for him on the entrance to *Grocott's Mail* reads 'David Rabkin Newsroom'.

The new history of *Grocott's Mail* began after the university bought it in 2003. The change has been especially reflected in the mission and vision statements of the newspaper. Change here refers to change in ownership, structure, and content of *Grocott's Mail*. Article 4 of the by-laws of the project clearly indicates that the company shall not use its resources, directly or indirectly, to support, advance or oppose any political party (DRPEJ, 2003: 2). The document stresses that its resources are to be used only to promote its aforementioned dual goals. This indicates the new approach the newspaper has started to take. Interviewees concur that after the firm's acquisition by the Rhodes University Department of Journalism and Media Studies in 2003, the change to accommodate all communities in Grahamstown started taking roots. Interviewees believe that, whereas in the past *Grocott's Mail* privileged the conservative white community, recently it has undergone a profound change in terms of covering stories about black people. As such, interviewees believe that it has become common and normal to see black faces on the front page (Interviews, Mjekula, 27/02/07; Rennie, 1/03/07; Vale, 12/03/07).

Documents and observations reveal that in the 137 years of its history, *Grocott's Mail* has had a written organisational structure only a few years ago. Currently, it has two structural aspects: a board of directors, and an advisory board. The former is responsible for receiving reports from the company's editorial management and business management. It also has a mandate to control finances and to set editorial and other policies (DRPEJ, 2003). The advisory board is composed of 10 members of the Rhodes University School of Journalism and Media Studies and eight other independent members from the Grahamstown community who are appointed and subject to the approval of the Rhodes University Vice Chancellor. The function of the board of advisors is to strengthen the all-round operations of the newspaper (DRPEJ, 2003).

Presently, the newspaper is a bi-weekly. Since 2006, the newspaper has had a website called '*Grocott's Mail Digital Edition*' (<http://www.grocotts.co.za>). The digital edition is run by new media students from the School of Journalism's New Media Lab with a new media lecturer as their editor. The print and digital editions are based in different buildings a few kilometres apart. The former is based in downtown Grahamstown outside the university campus while the latter is on campus. The digital edition publishes some content supplied to it by the newspaper's editor after the newspaper is published. The training vision of the online newspaper is more vividly similar to the training visions of New Media Lab. Founded in 1995, the New Media Lab broadly aims at educating journalists to create, produce, consume, and interrogate digital information technologies as media platforms and tools for social communication. The goals of the lab indicate that it does these in an African context. Other than the university, the financial supporters of the New Media Lab are Telkom, South Africa's giant fixed-line incumbent and telecommunication service provider, and NiZA, Netherlands Institute for Southern Africa (New Media Lab, 2007).

3.3.3 Overview of technological acquisitions

Having written about the distant and recent important historical events of *Grocott's Mail*, it is important to briefly outline some of the general technological acquisitions at *Grocott's Mail* from the oldest to the most recent. By virtue of its incorporation of the *Graham's Town Journal* in 1870, *Grocott's Mail* had access to printing presses that were imported from England in 1820. Then in 1889 it installed one of the best English linotype machines in its production section (*Grocott's Mail*, 15 May 1970). A linotype is a machine that produces a solid 'line of type'. It is a one-man-operated machine used for generations by newspapers and general printers (*Woodside Press*, 2007). When *Grocott's Mail* was running under the title *Grocott's Penny Mail*, it purchased a modern and expensive lithograph machine, capable of multi-colour printing using photographic technique. This was also the time it saw many other modern machinery and plants. By 1892 it had acquired the latest German printing press capable of doing standard printing works (*Grocott's Mail*, Friday 15 May 1970). This forms the first peak of its technological acquisitions. After this stage, there is no evidence which suggests more technological acquisitions at *Grocott's Mail* for a long time.

After the company was purchased by DRPEJ of Rhodes University in 2003, the face of technology started to change completely. This is a second peak of technological acquisition at *Grocott's Mail*. The newsroom now has one lap top computer, 30 networked Philips PCs installed with Windows XP Pro version 2002, and specialised software ranging from proprietary ones that are used for design and layout to OpenOffice.org software. It has some digital cameras that journalists can borrow and use in addition to their own personal cameras. The computers are connected to the Internet. Also, the paper has a website. Each reporter has the landlines supplied by the organisation. All reporters also personally possess different brands of 2G cell phones. The ICTs that are the focus of this study such the Internet, email, mobile telephony and news-processing software are in use. Generally, the ICT infrastructure at *Grocott's Mail* is becoming richer and more digital now than when it started operating. The technological journey from 1870 to the present is marked by a progress from hard 'hot metal' analogue technologies to digital ones.

Thus, the relevance of the history covered so far is to help contextualise this research. *Grocott's Mail* has existed for 137 years and its focus has changed according to the demands of the times, leading to change in services. It is also apparent that the goals of the newspaper evolved over time culminating in two current goals: to serve as a community newspaper and to serve as a training platform. In response to these emerging goals a new organisational structure was formulated and explicit statements made in the statute of the organisation for a balanced and independent coverage of the stories of the town. Also, the history shows the shift of ownership from a family (Grocott's family) to an organisation (Rhodes University). The history indicates technological acquisitions changed over time. These changes specifically help in contextualising journalists' appropriation of ICTs in news-gathering and processing.

3.4 Conclusion

This chapter presented the historical contextualisation of *Grocott's Mail*. It provided the socio-economic conditions of Grahamstown and the history of *Grocott's Mail*, focusing on important historical developments in the organisation. The next chapter is on research methods, techniques and procedures applied in this study.

CHAPTER FOUR

RESEARCH METHODS, PROCEDURES AND TECHNIQUES

4.1 Introduction

This chapter presents the research methods, procedures and techniques used in this research. It starts with the goals of the study and then presents qualitative research as the overarching methodology. Since qualitative research methodology is a well established and well known paradigm of research, this chapter will not belabour it. It rather highlights the essence of this tradition in media studies and why it is appropriate for this study. Then it presents the sub-methods chosen for this study both from their theoretical side and from the experiences encountered and adjustments made by the researcher during the fieldwork that lasted five weeks. The chapter presents case study design as a type of qualitative research method and its relevance to this study. Within the case study design, this study mainly makes use of in-depth individual interviews, direct observation, and documents. In relation to these techniques, the importance of triangulation as a way of attaining validity will be discussed. Finally, this chapter discusses the strategies for sampling and data analysis used.

4.2 Goal and objectives of the research

The goal of this study is to investigate journalists' appropriation of information and communication technologies (ICTs) in news-gathering and processing at *Grocott's Mail*. This goal can be broken down into the following specific objectives:

- to describe the state of the existing ICT infrastructure at *Grocott's Mail*;
- to analyse how and why *Grocott's Mail* journalists use the Internet, email and mobile telephony in news-gathering and processing; and
- to locate *Grocott's Mail's* technology use within the wider technology use context in South Africa.

The objectives stated here focus on those ICTs that are used in news-gathering and processing including the Internet, electronic mail, mobile telephony and related computer applications used to process the gathered news. The research values respondents' understanding and description of the use of technologies in their daily routines. Therefore, the analysis of the data is to achieve the goal and objectives stated above.

4.3 The qualitative research methodology

This research relies on qualitative research methodology and some of its sub-methods. Qualitative research means a generic research approach in social research with a focus on solving a research problem from the perspective of the actions of the insider. The logic shared by qualitative types of methods is their use of qualitative methods of data collection and analysis (Babbie & Mouton, 2001: 270). Primarily, qualitative research focuses on understanding and providing a thick description of how people make sense of their lived world. It is defined by exploring or describing how people create meanings out of their social world and how they express these meanings using a variety of symbolic systems including language, rather than establishing cause and effect between variables. This characteristic distinguishes it from the quantitative research tradition (Babbie & Mouton, 2001:270; Bryman, 1988: 58, 63, 65; Deacon et al, 1999:6). According to these authors, the qualitative research tradition is relevant when the focus of research is on the natural settings of actors, when processes are more important than outcomes, and when the main aim is understanding and thick description, and when parts are used to create the whole.

But what is meant by the terms 'naturalism', 'process', and 'thick description' as fundamental philosophical underpinnings of qualitative research merits brief explanations. The term 'naturalism' refers to trying to investigate a phenomenon where and when it occurs as opposed to uprooting it from there and subjecting it to artificial laboratory settings. Naturalism has nothing to do with superimposing natural science models to understand social reality as used to be the case. It implies the care

that researchers should take to minimise the corruption of the phenomenon under research. Thus, it takes into account the fact that people engage in activities that make sense to them, thereby constantly creating meaning (Matza, 1969 in Bryman 1988: 58). 'Process' suggests the importance of viewing a phenomenon as a dynamic process and allocating enough time to understand it (Babbie & Mouton 2001: 271; Bryman, 1988:65). 'Thick description' is the researcher's detailed description of the phenomenon under study (Geertz 1973 in Deacon et al. 1999). Bryman adds:

This emphasis on description entails attending to mundane detail; the apparently superficial, trivia and minutiae of everyday life are worthy of examination because of their capacity to help us to understand what is going on in a particular context and to provide clues and pointers to other layers of reality (1988:63).

The justification for the choice of this methodology is based on the study's goal to understand journalists' appropriation of ICTs in news-gathering and processing at *Grocott's Mail*. The SST perspective frames this research goal in that this study also assumes ICT appropriation in news-gathering is not given but is socially contingent and constructed by actors in context. The study wants to establish the goal by investigating in depth and breadth the dynamic interplay between the humans (*Grocott's Mail* journalists) and the deployment of technologies (the Internet, email, mobile telephony, and application of software) in context. This interplay is termed the social shaping of technology (Lievrouw & Livingstone, 2002; McLoughlin, 1999: 14; Williams and Edge, 2001: 60). Qualitative methodology helps to see how the ICTs are appropriated based on human understanding and interpretation of them (McLoughlin, 1999:89). The flexible meaning journalists create out of ICTs as they use them is one of the central interests of this study. Consistent with the SST it assumed news-gathering technologies such as the Internet, email and mobile telephony are 'embedded' with various interests, values and assumptions of journalists at deployment level (McLoughlin, 1999:127).

The human factor in technology deployment is argued to have received less attention than technology itself. Research attention has been on technology alone as if it has

been an autonomous force free of human values, judgements and attitudes (Hultén, 1994:347; Schiller, 1994). Nevertheless, ‘technology is not an autonomous force; its ‘imperative’ derives from judgements in the socio-economic system that surrounds it’ (Hultén, 1994:347-348). This study seeks to understand in depth how these imperatives are at work in the context of technology appropriation in news-gathering using the qualitative research method which has the advantage of helping to do so. Some of the core advantages of qualitative research which this study draws on include the methodology’s assumptions that meaning is embedded in a social action, and that those meanings and actions must be studied in naturalistic contexts, and the definition of the role of the researcher as an interpretive subject (Jensen, 2002: 236). The two paragraphs above isolated the parts of the research problem to justify the choice of qualitative research methodology. Based on this, the next paragraphs further treat how the qualitative tradition is relevant to this study because of its suitability to this study compared to the quantitative tradition.

Wimmer and Dominick (1991: 139) specify three dimensions along which qualitative research differs from quantitative research. First, they differ in their philosophical view of reality. Whereas quantitative research views the world as a single reality which exists out there independent of actors or observers to be seen equally by all, for qualitative research there are multiple, subjective realities that exist relative to the actors or observers; meaning is continuously being created and recreated. This study uses qualitative methodology because it allows multiple perspectives on the reality of ICT appropriation at *Grocott’s Mail*. Second, the two methods have different views on the individual. That is, whereas quantitative researchers believe that all human beings (in this case journalists) are basically similar and look for general categories to generalise their behaviours and feelings, qualitative researchers view human beings as all being fundamentally different and unable to be ‘pigeonholed’. This research also takes a qualitative perspective on individual *Grocott’s Mail* journalists’ appropriation of ICTs. It then tries to assess the contribution of each in terms of the meanings they create out of technology use in journalism. Third, whereas quantitative research aims to generate general laws of behaviour and seeks to generalise these across a vast setting and population, qualitative research attempts to produce a unique and deep understanding of a particular phenomenon. In terms of this third point, Jensen (2002: 211) holds that qualitative research is fit when the focus is to generate an exploratory

understanding of a research problem as opposed to the quantitative tradition which focuses primarily on demonstrating a cause-effect relationship or correlation between variables.

Wimmer and Dominick's (1991:139) three merits of qualitative research are its suitability in viewing reality as diverse and relative, its acknowledgement of individual differences, and its focus on depth rather than breadth. These advantages, inter alia, justify its relevance to this study in terms of the goal. The justification for choosing qualitative research methodology are based more on the research problem than on the inherent philosophical differences in the two traditions as shown above. This research is a case study that can be best approached within the qualitative programme with the advantage of understanding the complexity and particularity of a case in depth. The multiple types of methods and techniques branching from qualitative research provide multiple ways of looking at the goal of this research in depth (Denzin & Lincoln, 2003:4-5). In-depth individual interviews, direct observation and documents were used to capture alternative views on a phenomenon in context.

4.3.1 The case study

This research uses the case study method because it provides many sources of evidence, the most common ones being interviews, documentation, observation and physical artefacts (Yin, 2003:85). Many authors writing about case study method emphasise that the main focus of the method is to enable the researcher to understand the particularity and complexity of a single case, a unique case, as it interacts with its context. Their most common theme is the need to understand or hear and tell the stories of the case. A case could be an organisation or individual persons (Yin, 2003:12-14; Stake, 1995:1; Stake, 2003: 1-2; Babbie & Mouton 2001:281). What these authors are doing is giving a functional definition of the case study method. The merits can easily be inferred from the definition. The case study benefits from theoretical developments in the broader qualitative research tradition. Its acceptance of diverse perspectives on reality is, therefore, shared by other qualitative methods such as ethnographic research and life histories. Nevertheless, it is set apart by its

attention to details, selections of a small number of cases, and by its being a multi-method (Babbie & Mouton 2001: 278-279; Stake, 1995: xii).

While case study method provides us with multiple sources of evidence, a single case is still at the centre of attention. To remain focused, the case should be organised around a few issues. Of these few issues, there will be one dominant issue that must be maintained throughout (Stake 1995, 18-19; Stake, 2003: 142-143). By 'issue' Stake meant 'complex, situated, problematic relationships' (Stake, 2003: 142). Issue does call attention to ordinary experiences and understanding of languages of the discipline of study. The issue also guides the development of research instruments.

At data collection stage, the six most commonly used techniques of data gathering involve: interviews, documentation, direct observation, records, participant-observation, and physical artefacts (Gillham, 2000b:20-21; Yin, 2003:85-97). Of these, I used in-depth individual interviews, direct observation, and documents in order of their importance to this case. In the subsections below (4.3.2 to 4.3.4) I will present the merits of each vis-à-vis the unexpected things encountered and the adjustments made during the fieldwork.

In short, the two main merits of case study are the possibility for multiple sources of evidence and a strong focus on a unit of study. The first merit triggers the possibility for triangulation. Yin describes triangulation as a rationale for using multiple sources of evidence; and points that out as a major strength of the case study in data collection and analysis (2003:97). Triangulation makes it possible for the development of 'converging lines of inquiry' according to Yin. Because the multiple sources of evidence provide multiple measures of the same problem, they help increase the validity of this research (Yin, 2003: 99). Stake (2003: 147-48) also affirms the importance of triangulation in increasing validity and helping overcome problems of misrepresentation. Properly triangulated evidence saves a researcher from risk of being caught in inaccuracy. What is triangulated ranges from data triangulation, investigator triangulation, theory triangulation and methodological triangulation (Yin, 2003:98-9). This research uses triangulations of the case study data collection techniques.

The major limitation of the case study method is that the findings and conclusions can not be generalised beyond the case. It is up to the readers to see the commonality of this case with other cases, sometimes making their own interpretations. But in intrinsic cases the impossibility of avoiding generalisations is touched on. An intrinsic case study is a case study via which a researcher wants a better understanding of a case (Stake, 2003:136, 140-1). This study is an example of an intrinsic case study which seeks to understand *Grocott's Mail* journalists' appropriation of ICTs in news-gathering and processing. Although this case will not be generalisable to the population, as in surveys and experiments, there will be a possibility of generalising within the case.

As the literature suggests, the case study method is suitable to investigate, understand, and tell the stories of journalists' appropriation of ICTs at a local African media institution, *Grocott's Mail*. The media institution is a unique case in this instance. I will now go on to the data collection techniques used.

4.3.2 In-depth individual interviews

The purpose of data collection through in-depth individual interviews in this study is to get detailed descriptions of first-hand experiences from interviewees (Rubin & Rubin, 2005:2-3). An interview is a conversation where an interviewer is seeking responses from an interviewee for a particular purpose (Gillham, 2000a:1). An in-depth individual interview is characterised by its origin from the qualitative research philosophy and its being the extension of ordinary conversation. As an extension of ordinary conversation, an interview is invented anew each time it occurs. The interviewer determines the next question as the talk flows (Rubin & Rubin, 2005: 12). Of all the tools of data collection, the in-depth individual interview is the principal one used in this study. This study used a semi-structured in-depth individual interview format. An in-depth individual interview is a process of obtaining a detailed data on how and why interviewees construct meaning on a phenomenon of research (Babbie & Mouton, 2001: 291). This interview technique is suitable to the study because it helps collect detailed information on *Grocott's Mail* journalists' appropriation of ICTs in news-gathering. According to Bower (1973: vi in Jensen, 2002: 140) the commonsensical justification for interviewing is that 'the best way to find out what

the people think about something is to ask them'. Jensen also articulates the relevance of in-depth individual interviews in media as:

In-depth interviewing...may be well suited to tap social agents' perspective on the media , since spoken language remains a primary and familiar mode of social interaction , and one that people habitually relate to the technological media (2002: 240).

Besides, the reasons given for the choice of qualitative methodology in section 4.3 above also hold for interviews.

Before I went out for a field research, I considered using focus group discussions in addition to the techniques of data-gathering that I used, but I made an adjustment and eliminated this option. That is based on the preliminary information I received from *Grocott's Mail* that the editorial team was too busy to be available all at once. The relevant group of respondents was also small and they could not make more than a group. Valid focus group research requires more than one set of groups if evidence is to be valid (Babbie & Mouton, 2001: 291-292). That could have left me with shallow data had I not changed my mind.

4.3.2.1 Profile of the interview process

A total of 5 in-depth individual interviews were conducted, each lasting 1-2 hours, with the editor, the deputy editor, a senior reporter, a photojournalist and sports reporter, and the general manager of *Grocott's Mail*. These are the key members of the organisation that I identified. This number of participants is clearly more manageable than having 8-12 interviewees as Babbie and Mouton (2001) recommend. To all five respondents, I sent the general purpose of the study, some expected questions, and confidentiality statements a few days before our appointments.

The interviews took the form of ordinary conversations. I had preset interview questions with me just to use as a guide. While the main questions were in the guide, I determined the probes as the conversations proceeded. The interviews proceeded in semi-structured ways. Writers who discuss interviews testify that semi-structured interview formats are the most important forms in case studies (Gillham, 2000a:65;

Yin, 2003:90). The whole data collection lasted from 23 February 2007 to 30 March 2007. However, there were a few follow up interviews for clarification on some factual information until 10 May 2007. Rich data emerged out of each conversation.

4.3.2.2 Interview venue and problems encountered

Gillham (2000a:8) writes that selecting the interview venue should take the convenience of the interviewee into account. I had this in mind when I asked them the venue of their choice. They chose to be interviewed at *Grocott's Mail*, on their home ground. All key respondents chose to be interviewed at *Grocott's Mail*. As a result, they seemed to have felt at home during the interviews. All of them were face to face interviews. The time was also the one that they wanted. Most appointments were on Tuesdays and Fridays after the newspaper was out. That gave them some time to sit for one hour minimum. But the venue was an open space and there was a low level of noise coming from other workers talking. Also there were occasional distractions from colleagues and the ringing of phones. I sometimes had to stop recording until someone finished talking to a colleague about work. That interrupted the flow of the conversation.

4.3.3 Direct observation

This study used direct observation as a second important case study technique. The rationale for doing direct observation was to obtain additional information on the case study's site, about the ICTs that are in use at *Grocott's Mail*, the conditions of the building and the nature of the work space (Yin, 2003:92-93). For Yin, direct observations are used not only to generate additional information but also as valuable helpers for understanding the actual use of technology or potential problems encountered (2003: 93).

In general terms, Mason enunciates three rationales for why researchers turn to observational research. First, researchers choose observation as a technique of data gathering based on ontological beliefs. That is, a belief where one considers interactions and behaviours and the way people make sense of them as a key to social life. Second, researchers choose it when natural or 'real -life' settings are expected to reveal social reality. This is to establish validity and adequacy. Third, observation is

used when the researcher believes that observation generates information of enough complexity and richness on a case (Mason 1996: 61-63 in Deacon et al, 1999:249).

Because it is the most noteworthy advantage of observation, field observations of the deployments of ICTs in news-gathering and the people who deploy them took place in their natural work settings (Wimmer & Dominick, 1991: 142). This was to get rich and detailed data especially those that could not have been obtained through interviews and documents alone. Observation enabled this researcher 'to see the unseen' especially in terms of the state of the existing technological infrastructure at *Grocott's Mail* and what people do with it in an actual work situation.

I did most of the observations before, during and after the interview sessions. The first way I did observation was allotting a separate time and day for the events that I observed. I observed how computers in the two sections of the newsroom were used on different occasions. I started with the computers in the student reporters' newsroom. There my focus was on journalists' appropriation of software for processing news, the type of machine, and the version and type of the operating system, the local area network, Internet speed and browser types, and how the editorial staff managed files and folders. I did the same observation with ICT applications in the editorial and design section of the newsroom. I was interested to see similarities and differences. I also attended a few post-mortem meetings to make sense of the agenda that are raised. The minutes of those meetings were also emailed to me from *Grocott's Mail*.

The second way was a more informal one while collecting data through interviews and documents. In this case, I did not take notes while I was observing. Rather I went home immediately and took notes of the things that I had seen on the side so that I would not forget. I found the less formal observation to be less intrusive. No one stared at me or felt that I was an external to the research setting because they all knew that I was there by permission. In a direct observation the researcher is identified when the study begins and those under observation are aware that they are being studied (Wimmer & Dominick, 1991: 140). The editor notified *Grocott's Mail* journalists that I was going to be there for study purposes. To certain extent their full cooperation could be because of this.

Taking field notes were part and parcel of the observation process. Noting the significance of field notes in research observation, Wimmer and Dominick (1991: 144) hold that the observer should record not only what happened or what was said but also personal impressions, feelings, and interpretations of what was observed. Observation in this study was also accompanied by notes on the technological artefacts and the activities and conversations that journalists engaged in about ICTs. The notes described and reflected on information obtained in this way for later use in analysis. Field notes are essential because they are working documents (Jensen, 2002: 243). Jensen distinguishes three types and purposes of taking observation notes: (1) *substantive* notes are taken to capture the scene under study; (2) *logistical* notes to add information about the circumstances under which data were gathered; and (3) *reflexive* notes to start the process of analysis and theorising based on observations (2002: 243). This researcher gave more emphasis to the substantive and reflexive notes. As Jensen recommends, the focus is on the substance of study: Journalists' appropriation of ICTs in news-gathering and processing.

When I concluded my observation, I ended by taking pictures of the building, newspaper shop, the computers in the newsroom, and the posters on the walls. The rationale for taking pictures of the physical artefacts is consistent with Yin's (2003: 93) comment that observation can be so valuable that one can even consider taking photographs at the case study site. This helps as supplementary information especially by giving important case characteristics to outside observers. Regarding this, Jensen (2002: 244) also adds that artefacts and various physical arrangements pertaining to media are relevant.

I received consent to take pictures from the deputy editor. She told the reporters that I was about to take pictures. The reason I took pictures was to capture the things that can not be captured using interviews and direct observation. The pictures were not random ones. At home, I jotted down the categories of things that I must take pictures of. So, I had limited digital photographs, only 45. Thus, all the observations were guided by the research goal. As such they were focused.

4.3.4 Document review

Document collection is the third data gathering technique that this study employed. I decided to collect documents that were relevant based on the goal of this research. Only documents that were relevant in understanding the case were collected. The collections took place during the course of the study. Using documentary sources in communication research serves two purposes: to supplement the material the researchers collect themselves; and as a primary focus of research. Documents are essentially used to investigate the activities, strategies, decisions that the organisation takes (Deacon et al, 1999:14). The first purpose is more relevant to this study in that document review helped to supplement and cross-check evidence collected through other techniques.

Although the type of documents to be reviewed are decided based on the research questions, some of the types that are recommended include newspapers, annual reports, minutes of meetings, letters, policy statements, regulations and guidelines (Gillham, 2000b: 21; Stake, 1995:68). Since an organisation's documents are deposited formally in writing, they play a part in the effort to triangulate evidence. They can help stabilise the informal reality by comparing it to the formal and structured one (Gillham, 2000b:21, Yin 2003: 103).

Like in using evidence generated by other methods, use of documentary sources must be scrutinised for representativeness, authenticity and credibility. Representativeness means the degree to which a researcher tries to take adequate samples of documents. Authenticity requires being cautious of documents that are purposively faked. Credibility has to do with checking the accuracy and honesty of the information (Deacon et al, 1999: 26-30).

Let me describe the types of documentary sources that I found and failed to find at *Grocott's Mail*. At the start, I asked the editor for documents and he redirected me to the general manager of *Grocott's Mail*. I asked for documents such as *Grocott's Mail's* Code of Conduct, technology policy and any documents on ICTs, historical documents, and the founding document for the newsroom, inter alia. It is from this office that I obtained most of the documents. Initially my plan was to get those documents that are purely concerned with technological infrastructure at *Grocott's*

Mail. But the plan did not work as they do not keep separate documents specifically related to ICTs. Issues of ICTs are treated within other bigger documents, such as codes of conduct and in other policies about the company's assets.

So, I decided to get some general documents. The documents I obtained include policy statements on *Grocott's Mail*, mission and vision statements, the newspaper's organisational structure, financial and budgetary documents, sample stories both from print and digital editions, and minutes of post-mortem and diary meetings. As is seen, documents gathered are huge data by themselves. After going through each of them, I created two folders for them, a manual file for those acquired in hard copies, and a digital database for those acquired electronically. The purpose of organising information in such a manner was to make it easy to access and integrate the documentary sources into the analysis for optimum triangulation. Not all of them are included in the analysis because of the limited scope of this study. The analysis mainly relies on data obtained through interviews. Stake (1995:68) states that the potential usefulness of documents should be anticipated and time allocated judiciously to their analysis.

I was told that most of these documents are meant for internal uses. However, it took a lot of time and confidentiality promises to get some of the documents that bear the 'trade secrets' of the institution. The founding document for the David Rabkin Project for Experiential Journalism is one of them. I was also aware that there are some photographs and layout files that are burnt on DVDs and stored for internal purposes. I did not obtain these. I convinced myself that the ones obtained are enough and that at the end what matters is not the number of documents but the meanings and interpretations I draw from them to understand the case (Deacon et al, 1999:17).

4.3.5 Criteria for selecting samples

The conscious determination of sampling unit based on a research agenda is a common procedure to all qualitative non-random sampling (Deacon et al 1999:54). This study selected its data sources purposively. Respondents selected from *Grocott's Mail* are those chosen by the researcher based on their longer experience and the key roles and positions that they hold (see appendix D). Even data generated through observation and documents follow the same sampling procedure. The case study of

journalists' appropriation of ICTs in news-gathering and processing at *Grocott's Mail* provides the basis for the choice of purposive sampling procedures. To reiterate, the main focus in this study is to understand the unique case, rather than finding correlations or cause and effect relationships amongst variables. Therefore, random sampling typical of survey research and experiments would not hold here given the need to understand and capture the particularity and complexity of the case.

I entered the research setting more formally after my supervisor sent an introductory email to the editor about my presence there. The first thing I did was speak to the editor to obtain contact details and roles of my prospective interviewees. The editor furnished me with email addresses of 9 individuals including his. This phenomenon of purposive sampling is specifically called snowball sampling. Getting key informants in this way is likened to a snowball running down a hill that gathers momentum; 'a snowball sample also grows through momentum: initial contacts suggest further people for researcher to approach, who in turn may provide further contacts' (Deacon et al, 1999: 53).

Of those supplied by the editor, I looked at their roles and decided to interview five key respondents in the organisation. These were the editor, the deputy editor, two reporters and the general manager. The first four are on the editorial team. These data sources are permanent staff as opposed temporary student reporters. The reason for choosing permanent staff is to obtain relatively more comprehensive and coherent data because of their long stay and experience there. In contrast, it was difficult for me to include students in the research because it was difficult to get hold of them as they keep changing all the time. Especially, the first few months of the year 2007, students were rare to find at *Grocott's Mail*. I started the data collection in February when I could see one or two students sporadically.

4.3.6 Strategies of data analysis

The data analysis stage aims at giving meanings to first impressions of the case as well as final compilations. There is not a specified moment to start doing analysis nor is there a clearly demarcated beginning, middle or end (Stake, 1995: 71-72). However, there are strategies to aid in data analysis and interpretation and in establishing priorities of what to analyse. This study relies on 'theoretical proposition'

as the best analytic strategy of case study evidence. The merit of this is that it helps to follow theoretical perspectives and assumptions that have led to the examination of the case. Thus, the purpose is to talk my data back to the theoretical framework that gave rise to the research issues and questions. Under this general strategy, the study uses ‘pattern-matching’ technique. Pattern-matching is a logic that helps to compare empirically based patterns with the projected ones. Both the strategy and the technique are the most preferred in case studies (Yin, 2003:111-116). This will be useful for interpretation as well as theoretical reflections on the findings.

Evidence from in-depth individual interviews were tentatively coded into four categories and saved into different folders: (a) background and brief history, (b) internet and internet applications, (c) mobile telephony, (d) ICTs, multi-skilling, newsroom culture and ethics. These literature review-based categorisations were followed by categorisations according to the patterns that emerged from the data itself. This categorisation made it easy for me to access the data during the analysis phase.

The analyses of the in-depth individual interviews were more challenging than data obtained through direct observations and documents. Data obtained by in-depth individual interviews were by far bulkier than observation and documents combined in this study. To deal with this, I used Rubin and Rubin’s (2005:201) two procedures. The first procedure in interview analysis involves preparing transcripts, finding, refining, elaborating concept, themes, and events; and the second procedure is coding the interviews to retrieve and use later. My study used insights from these procedures. Thus, following Rubin and Rubin, data analysis was essential to this study because it was a process of moving from raw data to evidence-based interpretations that are foundational for the research report.

4.4 Conclusion

This chapter presented the research methods, procedures and techniques followed in the research. It started with the statement of the goals of the study. Then it went on to presenting the qualitative research methodology tradition. It justified why qualitative research methodology is appropriate. The first justification was its relevance to study

the case in light of the research goal; and the second justification was its ability to help understand in-depth the unique case of journalists' appropriation of ICTs in news-gathering and processing at *Grocott's Mail*. Then it presented qualitative case study method as an offshoot of qualitative research methodology. It argued that case study method is relevant because it allows for a multiple perspectives on the case. From among a myriad of case study techniques, in-depth individual interviews, direct observation, and document review were selected. These techniques provided an opportunity to achieve triangulation in both data collection and analysis. The merits of each technique were discussed further. The chapter then balanced the theoretical perspective with descriptions of situations encountered during the fieldwork. Finally the chapter treated criteria for sample selection, and data analysis and interpretation strategies. The next chapter deals with the data analysis and interpretations.

CHAPTER FIVE

PRESENTATION AND INTERPRETATION OF FINDINGS

5.1 Introduction

This chapter presents the findings and interpretations of the study. The analysis combines data obtained through in-depth individual interviews, direct observation and document reviews. This is to corroborate evidence from different sources. The analysis and interpretation will be done in tandem with the goal and objectives of the study reiterated above. It will be informed by theoretical considerations and the literature review. The analysis will be presented in narratives using quotations, summaries and paraphrases from the above-mentioned data sources. The main body of data subjected to analysis and interpretations will be interview data, while observations and documents are used to cross-check for the validity of the information. Texts that are quoted are those that are deemed to be the most concise and useful ones. While the concepts covered may be overlapping, theme by theme presentations below are used for analytic reasons.

5.2 Existing ICT infrastructure, training demands, and constraints

The objective of this section is to describe the existing state of ICT infrastructure at *Grocott's Mail*. It presents and interprets observation, interview and document data on the existing ICT infrastructure, the need for skills and capacity building, the need for upgrading the existing systems, and the financial constraints at *Grocott's Mail*. To illustrate points, selected pictures from observations and screen copies will be used sparingly.

5.2.1 Existing ICT infrastructure

Grocott's Mail as a whole has 30 Philips PCs locally networked and connected to the Internet. There is only one laptop for the editor but no-one else has a laptop. The interviewees all have private cell phones. Every reporter also has their own landlines. The 30 computers cater for its 28 permanent staff, and student reporters from Rhodes University. Of the 30 PCs, 19 are for permanent editorial staff and for student trainees. There are 2 printers (A4 and A3) shared by all the computers. One LaserJet scanner is shared by everyone. A computer-based image setter is used to streamline the process of creating the film needed to make the printing plates for the newspaper.

The David Rabkin Newsroom has two sections where these computers are located. The first section is set apart for student reporters while the second section is set apart for the permanent staff institutionally identified as 'the editorial and design section'. Observation shows differences in the software that are installed on computers of the two sections. Next, the ICT infrastructures in those two sections and how they work will be presented one after the other.

First, let us see the technological infrastructure and its implications in the 'student reporters' section of the newsroom. There are 8 PCs in this newsroom, all connected to the Internet. The Philips PCs are installed with OpenOffice.org 2 free office suit. The components of this suit include products such as:

- A. *OpenOffice.org Writer* which is a word processor used to compose and edit text and graphics in letters, reports, and documents. Journalists at *Grocott's Mail* use it as a free substitute for the premium product Microsoft Word to write and edit their stories. From observation, it is the most used software at *Grocott's Mail*. It has an inbuilt AutoCorrect dictionary.
- B. *OpenOffice.org Impress* is a tool for creating multimedia presentations that stand out with 2D and 3D clip art, special effects animations and high impact drawing tools. It has similar functionality with Microsoft PowerPoint. Student journalists use it for free at the company.
- C. *OpenOffice.org Base* provides reporters with database wizards to build contact details of their sources. It is a substitute for MS Access.

- D. *OpenOffice.org Math* is most commonly used to create and edit equations and formulae in text documents-does not exist in MS Office Suit.
- E. *OpenOffice.org Calc* is an all-purpose spreadsheet and it has got a number of advanced functionalities including DataPilot that enables the user to cross-tabulate, summarise and convert data into meaningful information. Calc is rarely used at *Grocott's Mail*.
- F. *OpenOffice.org Draw* is a graphic package used to create and edit drawing, flow charts, and logos. It is also rarely used at *Grocott's Mail*.

Of all the Open Office.Org 2 programmes, journalists are observed to use Writer most commonly followed by Base in processing the news gathered via the ICTs. The programmes **A** to **F** are also installed on computers in the editorial and layout staff section of the newsroom. They are used in the same way they are used in the student section.

From observations of all journalists' use of these ICTs, it seems that *Grocott's Mail* in terms of its Office software side is completely built on OpenOffice.Org programmes. They are all freely downloadable without even requirements of registration of user names and passwords. They are free. The conversations with interviewees indicate how indispensable these open source resources have been to overcome the huge financial constraints that exist at this small-scale newspaper. These programmes specifically help a lot in writing stories and in making databases of sources. Except for Writer and Base, other free software are almost unused in news-processing. Interviewees believe this has to do with the software's irrelevance to their work and the lack of adequate skills in using the advanced functionalities (Interviews, Ancer, 23/02/07; Mjekula, 27/02/07; Penney, 20/03/07; Rennie, 1/03/07).

OpenOffice.org aims 'to create, as a community, the leading international office suit that will run on all major platforms and provide access to all functionality and data...' (OpenOffice, 2007). OpenOffice.org works on the premise of '*access to all for free*' and aspires to uplift the digitally marginalised parts of the world population. *Grocott's Mail* has knowingly taken advantage of this in order to cut down expenditure on software.

Second, having looked at the substantial role OpenOffice.org programmes have in processing news stories at *Grocott's Mail*, description and analysis of technological infrastructure and their implications in the second section of *Grocott's Mail* newsroom (the editorial and design section) follows. In terms of the OpenOffice suit, the editorial and the design staff have the same access as the students. Nevertheless a stark contrast is observed as the 11 computers in the Editorial and Design section are equipped with other more professional and sophisticated programmes for various editing, design and layout purposes. These machines are installed with Adobe Creative Suit including Adobe GoLive (ENG), Adobe Illustrator, Adobe ImageReady, Adobe InDesign, and Adobe Photoshop. Both interviews and observation show that the most revolutionary of these is InDesign, used to design and lay out the newspaper. For some time after 2003, *Grocott's Mail* used to use Adobe PageMaker for its design and layout. After the pages are laid out in InDesign the Imagesetter is used to film the layout. Photoshop is also observed to be mostly used by the photographers, who download their pictures from their digital cameras and edit them in the programme. There are other software but those described are the powerful ones relevant to this study. The operating system at *Grocott's Mail* is Microsoft Windows XP Professional Version 2002 for both sections.

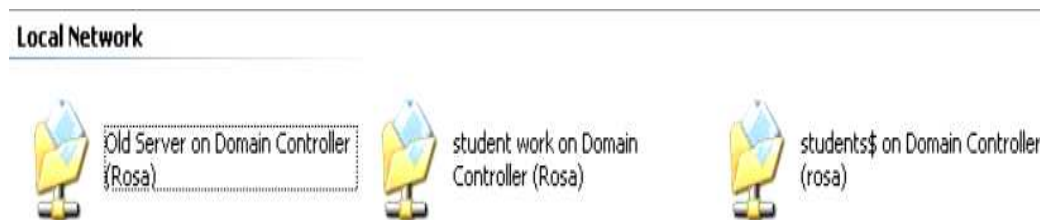
To sum up the description of the state of the existing ICT infrastructure, the newsroom has 19 computers while the remaining 11 are in various administrative offices. Observation evidence shows while OpenOffice.org 2 suit are common to all Philips PCs, only the permanent editorial and design staff machines have professional programmes such Adobe Creative Suit. The reason given for the difference in software in the two sections of the newsroom was cost (Interviews, Rennie, 1/03/07; Vale, 12/03/07).

Within the ICT infrastructure, below are the present states of the Internet, browser, and local area network at the company. *Grocott's Mail* has gone broadband and wireless since 2006 (Interviews, Ancer, 23/02/07; Mjekula, 27/02/07; Penney, 20/03/07; Rennie, 1/02/07; Vale 12/03/07). Interviewees concur that access to the Internet on their own machines has helped in methodologically changing the way the newspaper operates. They celebrate the Internet for the increased production and

quality of the newspaper. They believe that the way the newspaper looks and the ways stories are collected have come to be done digitally.

The local area connection at *Grocott's Mail* indicates that connectivity is at the speed of 100.0 Mbps. Internet Explorer is the only browser used. The entire 30 computers are locally networked. The local network place consists of three folder systems: Student Work on Domain Controller (Rosa), Old Server on Domain Controller and Student \$ Domain Controller (Rosa). Student Work is a shared local space which is most commonly used to file/save stories, photographs and all the content of the newspaper. The network place can be illustrated by a screen copy from the newsroom computer at *Grocott's Mail*:

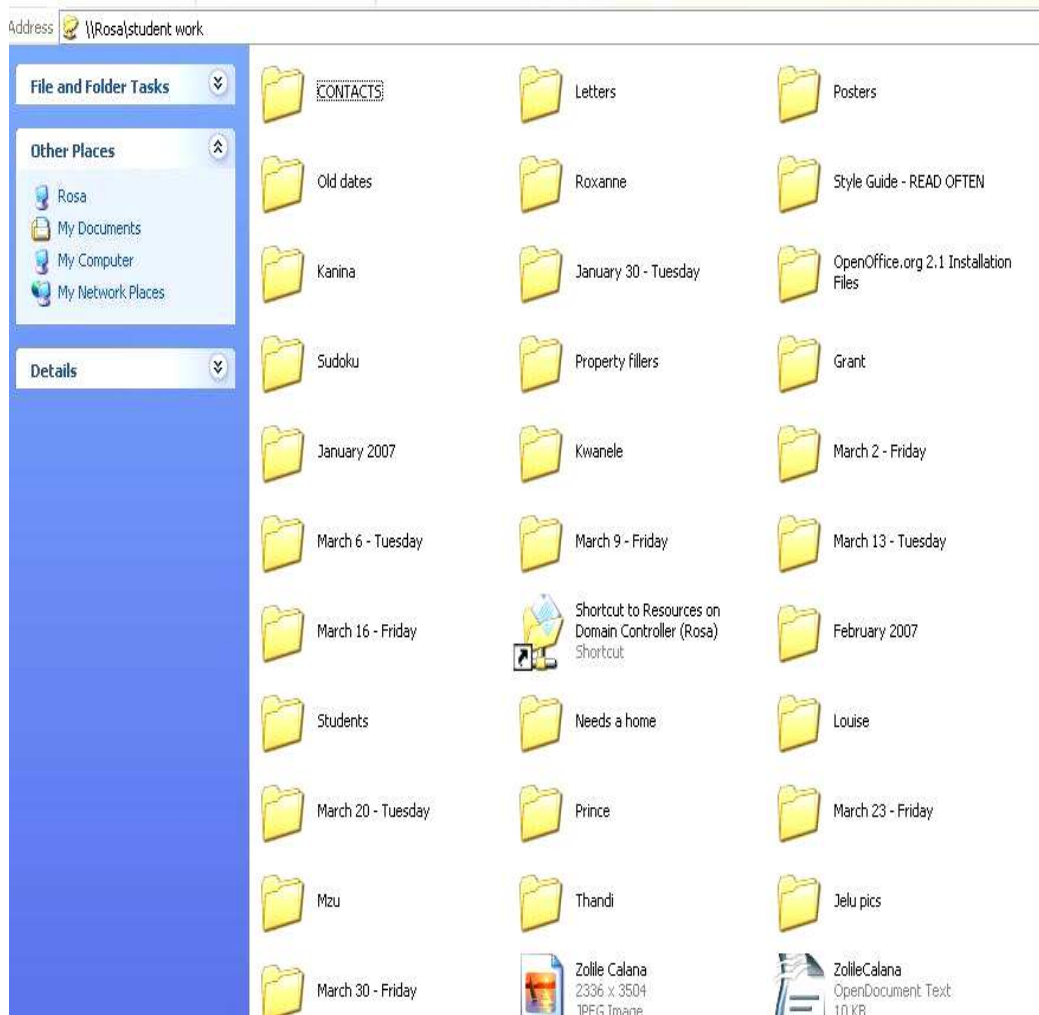
Figure 3: *Grocott's Mail* local area network



When one hits Student Work Domain, one gets other randomly named folders and files manually created. The subject of concern of this thesis is not *Grocott's Mail* Content Management System. That is the reason *Grocott's Mail* folder system is presented as part of the infrastructure here. An earlier study by Garman (2006), aimed at examining the existing knowledge management, shows that *Grocott's Mail* relies on folder systems. Garman concluded that the existing labyrinthine folder system has led to the loss and duplication of files and roles ultimately resulting in inefficient ways of storing and retrieving information. My observations and interviews confirm this. The editorial staff lament the complications created by the haphazard folder system although they think it is better now than when they were completely relying on traditional folders stored in filing cabinets a few years ago. How random and unprotected the folder system is can be seen from their multiple names and types of

files stored in them ranging from copies of stories to be edited and subbed to pictures. The following screen copy from *Grocott's Mail* computer can be used as way of corroborating my observation and the earlier study:

Figure 4: *Grocott's Mail* Folder System



A close look at this screenshot shows how very unconventional and haphazard the folder names are. Some of the folders were named after their creators, some are date folders, some according to the content (example, diary meetings), and some other folders were created for downloaded software. Some text and picture files are also found randomly saved. This all paints a picture of how disorganised and random the present system looks. This creates difficulty in finding the stories and pictures that are needed for printing. Interviewees also reinforce this view. Thus, this study finds that

the existing folder system creates a substantial difficulty in processing, storing and retrieving the information the newspaper needs to publish. The next sub-section deals with the need for skills and capacity building in ICTs.

5.2.2 The need for skills and capacity building in ICTs

The newspaper's strategic budget document indicates the institution has a dire need for training and staff development because of quality demands and educational demands on the newspaper. It explains that, compared to other community newspapers, *Grocott's Mail* needs a higher level of expertise to address the twin goals. The need specially arose after the business was purchased by Rhodes University. Here is how the document describes the need for training, "Most staff members that were taken over from Grocott and Sherry [sic] were underqualified and underskilled for the work they were expected to do" (Strategic Budget, February 2007). The expected areas of training range from various levels of journalism degrees to short term crash courses in relevant technologies. 14 Staff members requiring training were identified for the year 2007. That means half of the employees need training interventions at a cost to the institution as well as to themselves. I could not make a table of this staff training because I obtained the document under the promise of confidentiality.

In support of the document, interviewees expressed their varied needs and reasons for training. Mjekula stresses why it is important to continually get training in ICTs: "There has to be continual teaching of technologies so that people don't forget it and so that people are familiar with the technology coming up recently" (Interview, 27/02/07). He seems to be aware of the fast-changing nature of technologies. This is in agreement with the theoretical view advanced by Garrison (1998) about the relevance of training in ICT tools such as spreadsheets, databases, Internet searching and word processing in technologically emerging newsrooms. Technological determinism glosses over issues of individual and institutional demands for training and only preaches about the revolutionary consequences of ICTs. On the contrary, the SST captures the idea that training in ICTs is as important as acquiring them (Lievrouw & Livingstone, 2002:7-9).

Furthermore, in working with existing software and hardware, Penney acknowledges the challenge that he faces everyday because of the little formal training he received in Photoshop. He said that most people at *Grocott's Mail* are self-taught and keep learning from other colleagues who are ahead at the point when they need how to do specific things. Even as a very experienced photographer, he thinks that skills-learning is a life-long experience: "Although I have been taking photographs for the last 20 years, two years ago I went on a training course. Maybe I think I know photography, but I don't think I ever know enough" (Interview, Penney, 20/03/07). He is pointing at a need for continuous training based on the roles of the journalist. Both the editor and the deputy editor also recognise the gap in training and that they look forward to getting assistance from the Rhodes University School of Journalism and Media Studies as *Grocott's Mail* is owned by it (Interviews, Ancer 23/02/07; Rennie, 1/03/07). It appears that all interviewees give the need for increasing the quality of the newspaper and educational demands on it from Rhodes University as justifications for more training.

Although they know about the urgency of skills and capacity building in ICTs, the interviewees do not believe that prioritising only technological training becomes a panacea for the problems. They even look outside *Grocott's Mail* and point out the indispensable roles universities in South Africa can play in terms of training journalists in the fundamental skills of journalism primarily and then in relevant ICTs (Interviews, Ancer, 23/02/07; Mjekula, 27/02/07; Penney, 20/03/07; Rennie, 1/03/07; Vale, 12/03/07). Their concern about giving the primary attention to fundamental journalism skills such as writing and reporting corresponds with Dupagne and Garrison's (2006:249) recommendations that journalism students be taught to excel in one skill while they maintain a working skill in ICTs. At *Grocott's Mail*, traditional core journalism skills such as writing and reporting remain more important than an exclusively technological training.

5.2.3 Financial constraints in acquiring and upgrading ICTs

Interviewees concur that in terms of upgrading and purchasing new ICTs, the shortage of funds remains a huge challenge. There are various angles from which they talk about the perceived financial problems in their work, and specifically news-gathering and processing.

A photographer and reporter says in terms of numbers, the cameras at *Grocott's Mail* are enough but he believes that they are not up to standard:

The ones (digital cameras) that *Grocott's Mail* has are just cheap but they can do the job. Cameras obviously, I'm a Nikon photographer. So, I would love to see more Nikon cameras, obviously that costs 20 grand each...Maybe we need to find another sponsor just for the digital equipment. It is not just Johnnic, where I mean, Johnnic and the Herald upgrade their cameras every year (Interview, Penney, 20/03/07).

Penney strongly believes digital cameras available for news-gathering need upgrading. However, he seems to be convinced that it is unrealistic to acquire cutting-edge ones because of perceived lack of finance. He even points out that his institution needs help from other donors. Penney's comparison of his small community newspaper to the bigger media industries such as *The Herald* owned by Johnnic Communications seems to show stark differences based on size in the acquisition or upgrading of ICT infrastructure.

In support of the above, Mjekula elaborates that there is a definite financial problem especially to buy new hardware and software: "There is a difference in daily newspapers that operate with huge funds and a small institution that operates with small funds" (Interview, 27/02/07). The editor and the deputy editor believe that the existing ICT infrastructures are enough to do their job but they admit that it is unaffordable to buy cutting-edge ones (Interviews, Ancer, 23/02/07; Rennie, 1/03/07).

Views have been elicited from the general manager on whether there are some mechanisms of generating revenues at *Grocott's Mail* to overcome the perceived financial shortages. In summary, Vale says that there is not a scheme at the newspaper that particularly aims at tackling the shortage of funds for the gadgets. However, to attend to the general need for income, *Grocott's Mail* has four business projects: selling the newspaper, selling advertisements, providing printing services, and generating income from letting shops. These schemes help pay for salaries, printing costs, telecommunication expenses and other organisational expenditures (Interview,

Vale, 12/03/07). The double storey building they operate from belongs to *Grocott's Mail* itself. These schemes are not, however, enough to meet all their financial needs according to her.

At both the editorial level and administrative level, the above descriptions and analyses show that shortage of funds is hampering the efforts and the will of the organisation in purchasing new ICTs and upgrading the existing ones. Journalists witness that in terms of their roles and positions this limits their capacity to exploit the ICTs to the fullest extent in news-gathering and processing. The following section analyses and interprets data on the use of the Internet in news-gathering and processing.

5.3 The Internet in news-gathering and processing at *Grocott's Mail*

Jonathan Ancer, the Editor of *Grocott's Mail*, started working for *Grocott's Mail* in February 2006, three years after the newspaper was bought by Rhodes University School of Journalism and Media Studies in 2003. Ancer (Interview, 23/02/07) stressed that *Grocott's Mail* has had technological support from Rhodes University to go online since 2003.

Vale (Interview, 12/03/07) also thinks *Grocott's Mail* was first connected to the Internet after Rhodes University acquired it. Joe Alfes, the technology manager for the School of Journalism and Media Studies and who also helped *Grocott's Mail* set up its Internet and email connection, himself confirms that new computers, networks and servers were installed at *Grocott's Mail* after Rhodes University acquired it (Interview, 16/08/2007). The estimations of all interviewees show that the newspaper's connection to the Internet is relatively recent and came after it was purchased by the University. Nothing has been documented specifically dealing with the precise dates of the beginning of the Internet use by journalists at *Grocott's Mail*. The sub-sections below present the significance and shortcomings the Internet in news-gathering at *Grocott's Mail*.

5.3.1 Merits of the Internet in news-gathering and processing

This section presents the way the Internet as an ICT has come to be used at *Grocott's Mail* to meet certain occupational ends rather than dealing with the inner technological characteristics of the technology itself. There is an attempt to go beyond the features to put this new media in context (Lievrouw & Livingstone 2002:7; Williams & Edge 2001:53).

5.3.1.1 Researching stories

Data across interview transcripts show that the major reason journalists use the Internet in news-gathering and processing is to do background research. Though this theme is a recurrent one, the journalists understand it in different ways and give different examples based on their roles and positions at *Grocott's Mail*.

Luvuyo Mjekula is a senior reporter at *Grocott's Mail*. He joined *Grocott's Mail* in August 2006. He started his journalism career in 2003 as a news editor with a news agency in the Eastern Cape, *East Cape News*. He says he had a chance to read *Grocott's Mail* much before he joined it because he grew up in Grahamstown (Interview, 27/02/2007).

Mjekula gives his own descriptions of how he makes sense of the Internet before he talks about it from the perspective of its use in doing background research. He understands the Internet as, “a community where everybody, people from different aspects of the world, come together and share ideas”. His definition places people at the centre of the Internet instead of giving emphasis to the networks themselves. This seems to be a little less technical than Olsen's (2005:87) technological deterministic definition which lays emphasis on the inner composition and functionalities of the Internet as a network of networks. To Mjekula, what matters is how he understands the Internet and how it helps him do what he wants to do with respect to his role as community senior reporter. Mjekula narrates his experience of Internet use in news-gathering with some practical examples from his daily routine:

As a journalist it (the Internet) is very useful. I remember just today I was doing a story about a church which invested money into a company, a Johannesburg based company. I knew nothing about the company and a click

of the [sic] mouse and getting information off the Internet. I got to find out the latest information that impacted on the story I was doing (Interview, 27/02/2007).

By getting information off the Internet about the church's activity, Mjekula was doing background research on his story. The distance between Grahamstown and Johannesburg is 1000 kilometres. It would have cost him a good amount of money and energy if he had to travel for a face to face interview or if he had made phone calls for the same information. The quote illustrates how easy it has become for him to access information in his daily work. The way Mjekula appropriated this form of ICT is theoretically supported. This fits with Pavlik's (1996:7) argument that advances in various telecommunication technologies have the advantage of improved efficiency, speed, greater access and new skills. Except for saying the Internet is helping Mjekula in this particular way, the quote does not suggest a causal relationship between the Internet use and efficiency in journalism. The quote above also shows how the Internet enables individuals to extend their communication capabilities and that he is engaging in the activities as per the theory of social shaping of ICTs (Lievrouw & Livingstone 2002). We will turn to the care with which information taken off the Internet is treated later.

The types of information researched seem to differ based on the role of the reporters and the type of story assignments they are given. Stephen Penney is a photographer and sports reporter at *Grocott's Mail*. He started working at the company's bookshop 15 years ago (1992) and later became part of the David Rabkin Project for Experiential Journalism or *Grocott's Mail* (Interview, Penney, 20/03/07). Regarding the merits of the Internet in sports news-gathering and photojournalism, Penney has his own experience to share.

Penney praises the ease with which he can obtain official sports result from multiple schools and groups in Grahamstown. He gives an example that he frequently visits cricket websites to obtain ranks and winning schools. He also compares the local results and ranks to provincial and national ones. His word-for-word description runs: "You jump onto the Internet, go to Google, and just type in the race's (sport's) name and more than likely you will find results from that" (Interview, Penney, 20/03/07).

The metaphor of 'jumping' in his statement alludes to the degree of simplicity and speed involved in using the Internet to get background on stories.

In his role as photographer, Penney recounts how he uses the Internet to read the background to understand the context before he goes out on an assignment of photography. This is how he does it:

Sometimes if the editor asks me to take photographs, he sends me like a press release and says take a photograph of this. I read through the press release, get just a bit of more information on the event, and then the images go in my mind and see what I'm trying to get photograph of (Interview, 20/03/07).

Penney emphasises that most of the photographs and sports stories that he does are local content. They are local in the sense that they are limited to South Africa and the Grahamstown community. Like any other journalism assignment, taking photographs is a serious job that requires reading on the Internet, planning in the head, and getting the intended photographs on the field. He asserts that he does not do image searches as substitute to taking photos himself. That is perhaps because of local content requirements. This is how Penney as a photographer and sports reporter uses the Internet to meet his own needs in his job.

The interview with Rennie (Interview, 01/03/07) also corroborates the relevance of the Internet in daily journalistic routines. Gill Rennie is the deputy editor of *Grocott's Mail*. Before she joined *Grocott's Mail*, she was a journalism educator at the Rhodes University School of Journalism and Media Studies. Now she is part of the David Rabkin Newsroom as a deputy editor. She believes that the Internet is usually a relevant tool to enable journalists to read background information on stories. Their purpose in doing a pre-research is to familiarise themselves with the contexts of news stories. The availability of the Internet helps journalists overcome the previous limitation of the traditional newsroom. While in the past journalists had to go and spend time looking through books or talking to a librarian, now they do not have to do all of that as the Internet helps them get a huge amount of information on a subject in a short time. For her, the main advantage of the Internet is the increased convenience and speed with which background information on a story is accessed.

5.3.1.2 Verifying accuracy

Another important construct that appears across conversations with interviewees is the significance of the Internet in establishing the validity of information obtained both from sources as well as from other publications electronically and traditionally. There seems to be a consensus of views from the editorial team on that, although they take different approaches to explain it. The various views reflect how they appropriate the technologies in relation to their occupational roles and responsibilities.

Rennie refers to how access to the Internet is useful, “If there is a misspelling of a word or if a word is unknown or we are not familiar with, we use it (the Internet)” (Interview, 01/03/07). This form of ICT enables this deputy editor to prevent linguistic errors from trickling into news reporting. This view is congruent with McGuire et al’s (2001:94-120) and Lesame’s (2005:6) broader description of the significance of the Internet in verifying information via some forms of research on the ‘truthfulness’ of information. As in any media, accuracy at this local newspaper, where everybody knows everybody else, is a very crucial thing to establish. There are some notices stuck in front of desktop of journalists that read, “Have you verified spelling of names?”.

Mjekula also sees the Internet in this respect as a very useful tool for a journalist daily. His view goes, “I use it quite a lot and it is very useful for a journalist to use it to look for information in terms of language, if you are not sure of the meaning of a word, you go to the Internet if you don’t have a dictionary” (Interview, 27/02/07).

It no longer matters to Mjekula to have his paperback or hardcover dictionary with him as long as he has access to the Internet. Uncertainties of certain information will no longer linger in his head until he goes and searches a library’s dictionary or encyclopaedia shelf.

The need for being accurate for the interviewees seems to be underpinned by one of the fundamental principles of journalism, objectivity. Theoretically, to defend

themselves about the ‘truthfulness’ of information that they produce or retrieve, journalists in liberal and democratic societies resort to the principles of objectivity (McNair, 2001: 68-70). For a journalist or journalism achieving objectivity involves the separation of facts from opinions, a balanced account of a story and the validation of journalistic statements by reference to authoritative others (McNair, 2001:68-70). Concern for the principle of objectivity can be discerned from the activities that Mjekula and Rennie do above. Although the principle came earlier in the journalism of liberal countries such as England and the United States of America, the situation of these interviewees as people embedded in a constitutionally liberal South Africa might make one believe objectivism is adopted here too. However, this is not to suggest that objectivity does not have its own criticisms. It is also not to generalise the situation journalists face at this newspaper in Grahamstown to other situations but the attempt is to explain how practice fits into theory as theory can be implicit in practice in professional work situations.

Using the Internet to establish the accuracy of news stories can also be corroborated from the summary and interpretation of the interview with Penney. He believes that the Internet makes sports stories a lot more accurate. In the case of the start and end times of sports, he even thinks that official and more accurate results can be obtained from the Internet than by asking people at the event. Penney also believes that online dictionaries are useful for typing words onto the net and finding their meanings (Interview, Penney, 20/03/07). Underlying Penney’s view is the need to be accurate for the integrity of his own profession and for the need to meet editorial guidelines.

Document review shows where the Internet does not yield anything on accuracy, there are certain documents offline for journalists to work with. These documents were themselves drafted using online resources. The “*Grocott’s Mail Style Guide*” is such a document mainly dealing with linguistic and stylistic issues that must commonly be followed. Spelling of names, places and things are included in the document. The document also establishes the format of news stories that appear on the newspaper from headlines to paragraphs, fonts and so on (*Grocott’s Mail Style Guide*, n.d). There is also a separate document detailing the local schools’ names and their spellings with all Grahamstown schools’ landline telephone numbers. The list

contains names, spellings and phone numbers of 80 schools in Grahamstown. The document, like the interviews, suggests stringent requirements to be accurate. Again, the principle of objectivity seems to be implicit in the documents.

Corroboration of evidence from different sources above shows that validating accuracy, using the Internet as well as a few offline documents, is an essential part of journalism at *Grocott's Mail*. Verifying accuracy is one of the Internet usages in news-gathering and processing at *Grocott's Mail*.

5.3.1.3 Checking for competition across other media

The Internet enables and extends the editorial staff's abilities in checking for competition across other local media. The management of the newspaper unanimously applaud the strategic significance of the Internet for watching out how other media are doing and to make their own adjustments (Interviews, Ancer, 23/02/07; Rennie, 1/03/07; Vale, 12/03/07). For instance, Ancer views Internet appropriation from point of view of his role as an editor as:

I use the Internet as a tool just to see, in terms of news-gathering, I like to look at what different newspapers, South African newspapers are publishing. My first look is to see if there is anything from Grahamstown. That's if Grahamstown has made news in any way. I see if there are any stories for clues and tips for actual news stories (Interview, 23/02/07).

For Ancer it does not matter how the Internet technically works underneath and how experts define it, but what he uses it for matters to him. He uses the Internet as a tool to check competition. This theme of using the Internet as a tool is consistent with other interviewees' appropriations as well. The interviewee here is trying to get information on other newspapers' competition locally in Grahamstown, and nationally in South Africa. He searches other newspapers' websites and sees if *Grocott's Mail* stories are quoted in national newspapers or if they tell stories unknown to him.

Alongside checking for competition, the editor talks of the importance of the Internet for other reasons. He uses it to look at a national story before giving it a local treatment. The interviewee mentions that much of the content at his organisation is

local. He thinks the Internet is a supplementary source of information, and story ideas. He gives an example of how using professional and academic journalism websites such as those of the Poynter Institute and Nieman Foundation for Journalism helped him a lot in writing a 12 page style guide for *Grocott's Mail*. This, he believes, will provide standard procedures that help to ensure the quality of the newspaper. This document was obtained as part of the document review. This document deals with a wide range of grammar, spelling, and punctuation guidelines that must be followed in writing stories. Ancer's use of the Internet for his occupational ends seems to be congruent with McGuire et al's (2001:94-120) theoretical observation that the Internet has the competitive advantage of allowing journalists to search for new information and sources. The implication is that journalists at *Grocott's Mail*, who support their news-gathering with the Internet, believe themselves to be in a better position to know what other media around them are doing and to try better than them. Thus, they appropriate the Internet as a tool to check competition.

Besides, interviewees also think that even internally within *Grocott's Mail*, the Internet has helped improve, strengthen and diversify the activities of the organisation. For example, comparing the pre-Internet and post-Internet times at *Grocott's Mail*, Ancer talks of how communications have been speeded up and bureaucratic hurdles of putting a stamp on a paper have been overcome at his organisation. His view of the Internet reflects how it is helping *Grocott's Mail* to grow more and more competitive in today's media market. He appreciates the Internet contrasting it with traditional paper works in the past as follows:

I think it is much easier to contact people and it is also much easier for people to contact you. So, for example, technology is amazing in terms of somebody gets very upset and they want to write a letter to the editor, they want to give you tip, they just type on their computer and off it goes. In the past if you are upset you go home, you write it out on paper. Definitely, it does not have the same feeling that you don't end up not sending a letter because you can't find the stamp (Interview, 23/02/07).

Here he is not only referring to ICTs' advantages of greater efficiency and flexibility as stated in Pavlik (1996:5), but also how he appropriates the Internet as a weapon to

overcome traditional bureaucracies in this small-scale African community newspaper. Whereas traditional procedures of communicating with people through messages written on paper is slow and inconvenient, the Internet is fast and convenient, Ancer believes.

In summary, this section presented the findings and interpretations related to the merits of *Grocott's Mail* journalists' usage of the Internet in news-gathering and processing. To this end, three themes emerged from corroborated evidence pertaining to the significance of the Internet as an ICT in news-gathering at *Grocott's Mail*. Those were the usage of the Internet to do background research on news stories, to verify the accuracy of news information, and to check for competition across other media. The next section deals with the demerits and or abuses of the Internet at *Grocott's Mail*.

5.3.2 Unplanned consequences of the Internet

At *Grocott's Mail*, the Internet is not a tool that is always used appropriately for the aforementioned purposes. It is also important to explore how the Internet may be abused in news-gathering and processing. Interviewees' perspectives on this can be expected to be divergent based on their roles and positions on the editorial team.

5.3.2.1 Wasting company's working time

The editor, Ancer, expresses his concerns on the abuses of the Internet as follows:

I do think that because we are all connected, there are other distractions of the Internet. You know, people sending emails, and playing over MSN and Skype and chat rooms and I suppose that has a negative impact on production. It wastes time. I've seen people do it in playing Spider Solitaire (Interview, 23/02/2007).

The editor's observation reveals how the Internet as an ICT leads to unintended consequences at *Grocott's Mail*. Unintended consequences are side effects of ICTs including institutions' and individuals' loss of control over technology and technology

use (Pavlik, 1996:5). As the highest authority on the editorial team, he also thinks reporters are wasting the company's working time on 'irrelevant' technologies that are used in interpersonal communications and for entertainment such as Skype and Spider Solitaire and other online games. Ancer's emphasis on the Internet's distractions in his practical lifeworld can be related to Lesame's (2005:210-214) theorisation on the negative consequences of the Internet. Lesame argues that the Internet has counter productive effects when workers engage in communication activities that waste the time of a company.

My observations support how chat rooms and Instant Message Systems (IMS) are abused. I was at *Grocott's Mail* to mainly observe how journalists use computers and software. One of the journalists signed me into a free personal setting of a user with that user's password and user name. After I had gone through the programmes for about 10 minutes, someone started to chat, thinking the real user of the computer was there. The user had not signed out of his Google Talk. It loaded automatically when the computer was opened. The time was an early afternoon working hour on a Tuesday. The other person kept on sending IMS to it. I closed it for the user but even after I closed the chat window, the other person started IMSing again (Observation, 27/03/07). So, it appears that mediated interaction is replacing face-to-face interaction. It is possible to chat online even when journalists are in the same room. It can be difficult to police these kinds of counterproductive uses of the Internet such as IMSing, which could ultimately have some negative impact on the production of the newspaper.

5.3.2.2 Lazy journalism/ press release journalism

Comparison across the interviewees' responses led to the emergence of the theme 'Lazy Journalism' or 'Press Release Journalism'. There seems to be a consensus amongst interviewees that in one way or the other, relying on the Internet too much leads to this type of unintended shortcoming of journalists' use of the technology.

Mjekula's view on the phenomenon of lazy journalism follows:

It (Internet) could become a problem that could make people lazy and it's got its own downside. So, what happens is that it makes us journalists a bit lazy. Instead of going out and interviewing people, we just run, go to the Internet quickly and get the information that we need. Also it makes us vulnerable because we tend to take people's ideas off the Internet. You get information and it is not 100% of use (Interview, 27/02/07).

In providing this view, Mjekula starts introspectively from being self-critical and evaluative of his role as a journalist. That shows his awareness of the weakness on his part of being tempted by the bulk of news content available online. The interviewee is referring to the unprofessional and punishable nature of plagiarising other journalists' content. At the centre of his view is the negative consequence of the ICT in encouraging lazy journalism or press release journalism.

This is corroborated by another interviewee. Penney (Interview, 20/03/07) believes that as long as some people or offices put information about sports results online, it is up to the people to make sure things are accurate. He says he will go on to consume online information for his stories without being suspicious. He does not see a need to go physically and verify it nor does he consider phoning back the sources of such information. Penney believes that journalists can be tempted into uncritically and inaccurately consuming online information. Convenience of quickly accessing information can tempt as he himself puts it in his 'jump to the net' metaphor when he needs sports results.

The editor laments the phenomenon of journalists' abuse of the Internet in news-gathering specifically related to how press releases are uncritically and unethically consumed below:

I think the most significant problem we are trying to stamp it out, people just send press releases and they (journalists) just cut and paste and file it as their own story. It often happens with school news when people send us news about their school events or sporting events. I think that has been a problem; it creates lazy journalism. It creates kind of press release journalism that I really have problem with (Interview, Ancer, 23/02/07).

Ancer here is bemoaning the counterproductive consequence of the Internet as an ICT. He is being critical of the phenomenon of journalists apparently consuming information without questioning who produced it, how it was produced, and whether it is fact or opinion. The situation of lazy journalism is expressed vividly by the loaded phrase 'press release journalism'. It is loaded because it shows how journalism is increasingly being trivialised because of reliance on non-authoritative sources or individuals and groups with vested interests. Reading between the lines, press release journalism seems to be taken by him as careless, inaccurate, and sweeping in representation of facts. Besides the school news, he explicitly expresses his concern with the troubling nature of uncritically consuming retrieved information from some South African news agencies:

It happened a lot with BuaNews agency which is a government news agency which they (journalists) subscribe to it [sic] and they (BuaNews) send out list of stories everyday. It is all government; I would not want to use the word propaganda but it is information from the government about this minister went to speak at this state, and he said this. It is not critical, it is not independent (Interview, Ancer, 23/02/07).

Here Ancer is calling for a critical and independent evaluation of news stories that are available online. The quote highlights the need to be critical about the angle from which a story is told. It is not only the editor, but also the reporters, the deputy editor, and the general manager who see the need to be critical and independent in reporting. Vale's view (Interview, 12/03/07) reinforces other views about the existence of much dependence on information from news agencies such as Sapa and BuaNews. The two agencies are non-governmental and governmental respectively. The interviewees must not be mistaken as saying that subscribing to these news agencies is useless. Rather they advocate the judicious use of information obtained from these sources. All point out the need to go a little farther than 'press releases' in reporting.

Interview data suggests the need to initiate more face to face contacts instead of relying heavily on the Internet. Rennie vividly describes the phenomenon of lazy journalism as a serious problem:

I think reporters tend to become very accustomed to finding information sitting on their chair at their desks. And that becomes a habit and it becomes quite difficult sometimes to get up off your chair and leave the building to find information (Interview, 1/03/07).

She is warning against succumbing to convenient, easy, and quick access to information without really working hard for it in the field. The interviewee is concerned with the ICT-dependence mentality in news-gathering and processing.

Looking at the unplanned consequence of the Internet above, we have seen that at *Grocott's Mail* there are two major recurrent themes on the unintended consequences of the Internet. These are abuses of the technology that apparently waste the company's time and problems of a growing phenomenon of lazy journalism.

The views on the two themes-wasting company's working hours and lazy journalism-can be theoretically analysed. According to Lievrouw and Livingstone (2002: 7-8) the use of ICTs goes beyond technical features in that the understanding of them is dependent to a great extent on how humans take up technologies in their working context, and the various choices and decisions that humans make in their activities. These choices and decisions may not necessarily be limited to the ones that inventors foresaw. The situation of a reporter choosing to engage in interactions that waste the company's time is in consonance with this theory. The reporters are making decisions and choices regardless of whether they are right or wrong. When someone chooses to IMS, Skype and play Spider Solitaire during working hours, it is the person's choice and decision. These abuses can even be uncontrollable because of the absence of a policy regarding ICT use at *Grocott's Mail*. When journalists heavily rely on governmental and non-governmental organisation and news agencies for press releases and stories, it is still a human decision. These choices and decisions are simply SST's concern (see chapter 2). Nevertheless, this becomes a side effect of technology when reporters primarily rely on information from the Internet sources at the expense of doing face to face news-gathering. The next section focuses on the appropriation of electronic mail in news-gathering and processing.

5.4 Electronic mail (email) as a news-gathering tool

This subsection analyses and interprets data on email use in news-gathering and processing. The subsection is classified into two: the appropriated significance of email in news-gathering and its limitations.

5.4.1 Significance of email in news-gathering

Evidence from all the five interviewees converges in that they all say they use email a lot in news-gathering and processing. However, there appear to be various appropriations of email based on the roles and position of the interviewees at *Grocott's Mail*.

5.4.1.1 Tool of flexibility and speed

A pattern emerges that at *Grocott's Mail* one of the reasons journalists resort to email use is because of the perceived flexibility and speed that is involved. Ancer recounts how email makes his job as an editor easy:

It (email) is a very useful part of news-gathering. People are quick in jotting something, typing something on email and send it off. It is a good way of keeping in touch with reporters. When they are out in the field, I will send them email: 'Oh Luvuyo, what about exploring this angle to your story' (Interview, 23/02/07).

Here Ancer is describing the flexibility and speed that he associates with email. This flexibility is specific to meeting his own circumstance as an editor. For him email is a way of overseeing the degree to which reporters are comprehensively looking out for information. What the editor means when he says he keeps in touch with journalists when they are out in the field is best explained by Lievrouw and Livingstone's (2002) first component of the social shaping approach to new media research. That is, email as an artefact of communication is simply viewed by Ancer here to have extended his abilities to communicate beyond his office-bound editing job. He even said later in his

interview that he does not have to connect with his reporters in the physical sense to carry out briefing and debriefing. He chooses to communicate electronically. Importantly, this choice seems to be driven by his conscious decision, rather than email's inner technological composition.

Mjekula, the senior reporter, applauds the powerfulness and flexibility of email communications in news-gathering as follows:

It (Email) gives you space to say everything you want to say, all the questions you want to ask; you have a huge space to ask questions. And it is fast. Email is personal so they (sources) return your answers just like that [Clicking his fingers] (Interview, 27/02/07).

The way Mjekula clicked his fingers to show the speed and flexibility of email seems an intimate and vivid explanation of how that technology is appropriated by him in his job. That alludes to speed inherent in email technology. Implicit in his view is the possibility of gaining confidence as one has more time to think about what one asks. The private space matters to him. He does not leave out or forget what he wants to say because he seems to have control over the communication.

Mjekula and Ancer seem to synchronise their views of the merits of email with their occupational roles and needs. Their views support each other in that they both emphasise the speed and flexibility they get from the ICT. In a similar vein, the deputy editor, Rennie, believes that email means a very convenient and time-saving device as long as it works. Flexibility and speed are dictated by a condition where the connection is not down (Interview, 1/03/07).

Outside the editorial team, the general manager's view also seems to echo the same feeling of speed and flexibility. Vale, however, appropriates it from the perspective of how email helps her to communicate with people in the line of her duty, such as the advertising manager, publishers and printers, and administration staff. Like the other interviewees on the editorial team, she thinks email is time-saving, fast, cheap, and

convenient. She emphasises that email is a cheaper way to communicate compared to wasting money phoning people. Vale's view goes:

It is a waste of time and money trying to talk to each other and phoning each other. So, I like email in some ways because it gives you time to answer when you are ready but with telephone it is not so; you have to answer immediately. It sometimes makes communication meaningful because you have to think before you reply (Interview, 12/03/07).

As it is true for the other interviewees, email as a technology extends Vale's abilities to communicate with her colleagues in the organisation. However, Vale's articulation of email's merit in giving her time to think before replying is fully congruent with the underlying technical merit of its being an asynchronous technology. Simply, 'asynchronous' in email use means **A** can send a message to **B** when it suits him/her or vice versa. This principle is the basis for efficient communication (Olsen, 2005: 99-100). Transferring the concept, the general manager sends messages when it suits her to the advertising manager or administrators and vice versa. This theoretical explanation also holds true for the whole theme of speed and convenience as appropriated by different interviewees above. As a general manager, Vale also refers to cutting money spent on phone calls by using email as a supplementary alternative. The advantage of email as a tool for cutting cost is also supported by Penney who believes that local community newspapers with little funds must use email to cut costs (Interview, 20/03/27).

5.4.1.2 Email as an interview tool

The interviewees concur that they prefer using email interviews with Makana Municipality officials and Rhodes University academics. There is consensus amongst interviewees that email in news-gathering is mainly used with news sources in Grahamstown. This theme resounds throughout all interviews. Their reasons for preferring email interviews to other tools follow. Ancer stresses why email use for interview with Makana officials and Rhodes academics is relevant as opposed to face to face interviews below:

It happens a lot with academics we (journalists) don't really want to come and sit with. It is most often used with academics and official people like the municipal manager, and police spokespeople. They prefer not to have direct conversation and everything has to be done in writing (Interview, 23/02/07).

Ancer acknowledges that email interview is not necessarily the ideal way to conduct interviews with these professional and public sources as it creates distance in reporting. Nonetheless, the reasons for choosing email interviews for the said purpose may be more complex than this, but from Ancer's view it appears that there is little interest on part of journalists to go and sit with the officials and academics. Makana and Rhodes represent two different institutions working from different discursive positions: the former is the local government concerned with the political and administrative issues of Grahamstown and the latter is a higher educational institution in the town. Both have different foci from *Grocott's Mail* which has interest in sometimes playing the watch-dog functions of journalism in Grahamstown checking both institutions. As these officials and academics happen to represent different interests than *Grocott's Mail*, they seem to evade face to face talk to give themselves time to think and answer questions by email.

In support of the above view, the senior reporter, Mjekula who works very closely with the Makana Municipality, says it is easier for him to use email with the councillors because the officials want it that way. Mjekula obtains the email addresses and other contact details and positions of the officials from the municipality's website, www.makana.gov.za. Mjekula now knows the norms and rules when it comes to getting information from the municipality. He says, "When I phone the municipal manager, for example, most of the time he says 'send me an email with the list of questions'. That has become the norm now" (Interview, 27/02/07). In the instances given by Mjekula and Ancer what we note is that interviewing the officials would have been impossible if it had not been for the ready-made email questions sent to them. Evidence from other interviewees also corroborates the view that email is useful to penetrate the apparently impenetrable, busy and defensive political and academic environments such as the municipality and the university. This is the

positive side, but they are also aware of the negatives of such interviews, which will be discussed separately.

5.4.1.3 Email as a tool for participatory journalism

Under this theme, data and interpretations which recurrently recount how and why email is used as a source of story ideas and suggestion and as a device to encourage feedback from the audience is presented. This is the third major theme on the significance of email in news-gathering at *Grocott's Mail*.

Noting the significance of email in encouraging dialogical journalism between the newspaper and the local community, the editor says, "There is so much information that comes out of what people send, letters to the editor, some tips. Our newspaper would be thin if it weren't for tips coming through email" (Interview, Ancer, 23/02/07). He applauds the story suggestions and opinion pieces that come in from the audience. Theoretically, Ancer's view can be explained with Lesame's (2005:210) assertion that the technology can be used to empower the audience to interact on social, political, and economic issues in South Africa. That is an addition to email's merit as a news-gathering tool that enables journalists to receive story ideas, suggestions and tips (Boczkowski, 2006:10; McGuire et al., 2001:95-115; Quinn, 1998b:52, 53, 61).

Further, patterns of data from the editorial team suggest email is used at *Grocott's Mail* as a tool that encourages participatory journalism. The deputy editor (Interview, Rennie, 1/03/07) also notes that email plays a useful role to encourage participation from readers. She mentioned that story ideas come from the public to the general address called editor@grocotts.co.za. This is in addition to the messages they receive through their individual emails and through feedback that is directly written on the website after users register, and approvals and log in information are sent back to the users. Rennie does not, however, believe this is the main way news information is collected as she thinks face to face news-gathering is still essential. When Mjekula (Interview, 27/02/07) talks of email as being an easy way for people to contact him back, by inference he is referring to the significance of email feedback system in

empowering the readers of the newspaper. Although all journalists have email addresses, they are not publicly available in the newspaper and on the website. Mjekula says only a few people to whom he gives his contact details will be able to write to him personally except when messages come through the general company's address.

Sometimes, the idea of encouraging dialogical journalism may be tailored to the specific needs of the reporters. One example of this is where the sports reporter and photographer, Penney, obtains both the pictures and the stories from sources in town and on campus by email. It does not stop at receiving the pictures. He says readers continually discuss with him a sports story or the picture they sent him. There seems to be a degree of interaction. Penney also communicates with photojournalism lecturers at Rhodes University for some insights to help him in his job via email (Interview, 20/03/07). The use of email for other purposes than news-gathering and processing is not relevant for this thesis.

Document review and observation of contact details of important *Grocott's Mail* sources also reveal that, among other addresses, there is a well organised database of contact details including email addresses for the School of Journalism and Media Studies staff, for the municipality, and for churches and some schools in the town. For the journalism school alone 51 contact details of lecturers are available. This suggests that journalists are prepared for email interaction with these contacts whenever they need it for various purposes.

In sum, the significance of email at *Grocott's Mail* can be explained in term of its flexibility and speed, usefulness in interviewing officials and academics and ability at local level to empower participatory reporting. The idea of dialogical journalism carried to the next level by email here, can be best explained by referring to Deuze's 'open journalistic culture'. He argued that the function of journalism in this case is to satisfy the wants and needs of the audience. It is open because users are to some degree interactive, responsive, and accountable. So, as it is participatory, journalism is instrumental in function (2003: 17). To an extent, evidence indicates *Grocott's Mail* has started to take that route of empowering the audience to give feedback.

When interviewees were talking about the advantages of email as a tool of speed and flexibility, as an interview tool, and as a tool to encourage participatory journalism, they were giving us their own appropriation of email in news-gathering and processing. As these views are of those of journalist-users, but not of experts in the technology, a little more theoretical explanation of these merits is relevant. These informants would not have known and praised these advantages of email if they had not been working with the traditional paper-letter system before 2003. Lister and et al (2003: 18-19) hold that a closer look at email provides a useful and simple example of the significance of digitality. Lister et al identify the tedious process that a conventional letter undergoes which are also its characteristics. These processes include the physical production of the letter, handwriting, putting into an envelope, and licking and posting in a special box, and then its physical addressing throughout the postal system. In contrast, email is characterised in terms of the themes that emerged above which are indirectly related to the principle of digitality. Because email is a digital medium, it has advantages of compressing space and time. In accessible language it is an extremely fast and convenient medium compared to the physical transportation of a letter and requirements of stamps. The issue of flexibility raised in interviews is further explained by referring to Lister et al in terms of email's flexibility being enhanced by the possibility of journalists being able make attachments to their message. The attachments can range from other text documents, photos, moving image files to music (Lister et al, 2003: 18).

The qualitative significance of using email in news-gathering as a digital artefact discussed thus far have been viewed both from the technological side and from how and why humans (the editorial team) have come to use it in those circumstances. These trends are consistent with Lievrouw and Livingstone's (2002) theorisation of ICTs' usefulness to extend the communication capabilities of individuals as well as the organisational and professional contexts that the ICTs are embedded in. This is shown in the interpretations above. A point needs to be made that the merits of email appropriation by journalists is not to suggest their dependence on email alone for their work. The next sub-section deals with how email can supplement but not supplant traditional ways of news-gathering.

5.4.2 Unplanned consequences of email

This section deals with how and why email in news-gathering constitutes only a supplementary part of news-gathering and processing despite the strengths that were covered above. The comparisons and contrasts of the data to see email's significance and insignificance in news-gathering shows the interviewees tend to give more qualitative weight to the positive uses than the side-effects. Interview data on the unplanned use of email is shallower compared to that on the positive contributions.

5.4.2.1 Supplementary, not determinant

Interviewees appear to believe that despite the strengths of email in news-gathering and processing, it is not a primary tool that can supplant the traditional ways of news-gathering and processing.

The senior reporter talks of the relative shortcomings of email as compared to traditional face to face methods of news-gathering as:

Yes it (email) is easy, it is fast, but now you are not there with the person. I believe a person-to-person interview is always interesting to me because it is personal. You got to see the person you talk with, their facial expression, if they are not telling you the truth, it is easy for you to detect, you are right there (Interview, Mjekula, 27/02/03).

Mjekula describes the missing things in email interviews by comparing them to face to face interviews. His preference for a face to face interview over an email one is because while it is possible to observe all the contextual factors and the body languages in face to face interview, it is impossible to put them in email interview questions or to decipher them from email answers from the councillors, academics, or any other sources. Mjekula's position is theoretically explained by Steele and Cochran (1998:3) who indicate that the significance of being there with the person is to see the person himself/herself, to look at his/her office, to see pictures on the walls, and all the other contextual matters which help understand the message. As a result, face to face interviews help the journalist to instantly determine the accuracy of what is being said. As Mjekula says, face to face interviews make it possible to sense whether the person is telling you the truth or not. The traditional interviews are still favoured by

him for their mentioned advantages. Because Mjekula knows that his email interviews are limited to municipal officers and Rhodes academics, he believes that email supplements, instead of supplanting traditional ways of news-gathering.

The editor also explains why it is inappropriate to rely on email alone: “You can’t interpret tone, you can’t interpret body language, and you also get people to consider very carefully what they are saying and in some ways they may manipulate what they are saying” (Ancer, 23/02/07). The editor makes the point that the suitability of email to take time and think may lead sources to misrepresent facts. Suprasegmental features such as tone stress, intonation as well as body language are difficult to put in email. Suprasegmental features are significant extra-linguistic features such as stress, pitch and so on, which occur in utterance. Ancer’s observation about the possibility of manipulation alludes to the danger in sending a list of questions to sources such as the municipal officials and Rhodes academics. Theoretically, McGuire et al (2001:95-100) hold that interviewees’ answers in the case of email will not be the same as face to face communication producing a non-revealing and artificial version of the story. Despite the richness and powerfulness of texts composed into email textboxes, respondents are sceptical about its reliability.

Another view from the media manager shows the centrality of humans meeting and talking instead of relying solely on technologies such as email within *Grocott’s Mail*:

I think it should not be taken in place of meetings, we still have meetings. I think work is about people, about human relations. Productivity and those things depend on human relations, not just email relations (Interview, Vale, 12/03/07).

What this means is the awareness of keeping the human at the centre of journalism. In fact her perspective works from the point of view of SST, not technological determinism, because it calls for a certain balance to be made between traditional and email contacts. Viewed together, all the pieces of evidence reinforce each other forming a theme that there has been a limited methodological shift in the production of news as a result of using email. This corresponds with Reich’s (2005:564-566) finding in his study of Israeli press that despite major changes over time in ICTs, there

are relatively minor changes in journalistic methodology of production. The interviewees suggest the use of email is an evolutionary change than a revolutionary one at *Grocott's Mail*.

5.4.2.2 Small-scale media, small-scale email use

Email use in news-gathering at *Grocott's Mail* seems to be limited because of its small-size and its location in a small town, Grahamstown.

The editor, for example, talking of the insignificance of email in filing stories, indicates that the size and type of the media determines its technological life:

In terms of filing stories, because we are not a daily newspaper, if reporters go out on stories they usually have enough time to come and file it on their computers. It is useful, but I think it is more useful to daily newspapers where reporters are farther afield or where a deadline is kind of looming large (Interview, Ancer, 23/02/07).

Ancer believes that there is a difference in the degree of usefulness of email in filing stories based on whether a newspaper is daily or bi-weekly. *Grocott's Mail* is a bi-weekly community newspaper. He also adds that he has had a few instances of stories filed by student reporters who may be forced to go on campus and email them to him when all the computers in the student newsrooms are occupied. Mjekula (Interview, 27/02/07) also indicates that he does not use email for the purpose of filing stories as he can easily go to his PC and save his stories into a folder for the editor and subeditor. Like Ancer, other interviewees do not feel that the deadline at *Grocott's Mail* is that pressing either.

Rennie (Interview, 1/03/07) highlights that the traditional method of news-gathering has not changed a lot even in 2007 when most story ideas come in physically off the street rather than by any other technological means including email. Nonetheless, as subscribers to Rhodes University mailing lists such as the 'toplist', 'events' list and the School of Journalism and Media Studies' staff list, the interviewees think that these lists will help them follow story ideas about events on campus. For instance, in rare occurrences of big thefts on campus and during water pollution/shortage, they

used stories and discussions from the email lists. Coverage of local events such as the National Arts Festival, Sasol Festival of Science Engineering and Technology (Sasol Scifest), the Standard Bank National Schools' Festival, and National Festival of Christian Arts is boosted by email communications. Yet, as most of the events take place during winter one after the other, they are short-lived. Therefore, although most story ideas and tips come in by email during these events, interviewees still believe the use of email in news-gathering is determined by the size of the organisation.

It is evident that email communication is limited by two factors at *Grocott's Mail*: its use as supplementary method of gathering news and its curtailment because of the small- size of the newspaper and Grahamstown.

5.5 Mobile telephony in news-gathering and processing

This section analyses and interprets data concerning the status of mobile telephony at *Grocott's Mail*. Interviewees concur that the use of mobile telephony at *Grocott's Mail* for news-gathering and processing is limited. Field research yielded less data on the positive contributions of mobile phones compared to other ICTs in focus, perhaps indicating mobile phones' limited use. The bulk of the data obtained on cell phone usage relate to the constraints that prevent cell phone deployment in news-gathering and processing. For this reason, it is more important to focus on the factors that restrict mobile phone use in this section than on how and with what significance it is currently being used in news-gathering at *Grocott's Mail*.

5.5.1 Not a big factor in reporting

All the interviewees concur that cell phone use for news-gathering and processing is limited at *Grocott's Mail* despite the fact that everyone owns 2-G personal handsets. Views show that mobile phone use is no different at *Grocott's Mail* from the way the general public uses it for everyday purposes of voice calls and SMS. The use of cell phones in news-gathering and processing appears to be at its rudimentary stage (Interviews, Ancer, 23/02/07; Mjekula, 27/02/07; Penney, 20/03/07; Rennie, 01/03/07; Vale, 12/03/07).

Describing the low level of cell phone use for reporting, Ancer says:

Basically all the reporters have their own landlines. Generally if they have to phone somebody, they would phone them from their landline. Generally, reporters don't have to use their cell phones because we are a small enough town and again we are not a daily where it does not matter if Luvuyo gets a story at 8 o'clock in the evening, it gets sorted in the morning (Interview, 23/02/07).

Ancer shows the general institutional preference for using landlines for the sake of gathering information. He attributes his organisation's limited reliance on cell phones to the small size of the geographical area within which the newspaper is distributed and to the bi-weekly nature of the newspaper. The bi-weekly nature is mentioned to indicate that journalists are not so pressed for deadlines to work on their stories. To him, that makes instant communication irrelevant at *Grocott's Mail*. Although other interviewees still see some relevance of mobile phones, they also say they have landlines at their disposal to make calls to other people's cell phones and landlines. They echo the view that speedy communication is not required as there is ample time to prepare themselves (Interviews, Mjekula, 27/02/07; Penney, 20/03/07; Rennie, 1/03/07). However, all interviewees occasionally use cell phones to call each other to collaborate on activities or to give apologies for absence or delay from work. The personal uses of cell phones to stay in touch with others are common amongst them.

5.5.2 Constraints of funds and refunds

Lack of funds and refunds is another major theme that emerges from reading the interview transcripts between the lines. Mjekula laments the lack of allowance for cell phone use in reporting:

I don't have cell phone allowance from *Grocott's Mail*. I use my own cell phone. In the township or wherever, if I pick up a story, I phone my editor using my own cell phone with my own money to inform him about what's happening (Interview, 27/02/07).

Mjekula is already aware of the role that cell phones can play in news-gathering. As a mark of that he says he calls or SMSes his editor and colleagues when he gets stories or when he is late for work (Interview, 27/02/07). He uses his cell phone to receive and send information routinely. Nevertheless, his biggest problem is the lack of funds to carry his use of mobile phones a step farther in news-gathering and processing. From the quote we can see that the infrastructure of mobile telephony is there. The network is also there, obtained by the user from a national cell phone operators. At an institutional level Mjekula's quote suggests how there is not a system of funding and refunding at the community newspaper.

Mjekula's view as an account of his practice clearly shows that things are not going according to the expectations of theorists working from technological determinism school of thought. They write from the view point of how big media companies are transformed by ICTs, rather than how they are used in small-scale African community newspapers. Whereas Lesame (2005:8) gives a technological determinist account of how mobile phones are becoming a panacea for solving the communication problems in Africa, from the quote the specific reporter is unable to meet his news-gathering needs by the mere fact that he has a network. He needs money to pay for the networks. He is discouraged from using his cell phone with his own money as he does an institution's job. Technological determinism romanticises the use of cell phones as a panacea, but does not see the financial hindrances such as those Mjekula faces at organisational level.

In deploying cell phones in news-gathering as a photographer and reporter, Penney explains the difficulty he is facing as:

Ok, at *Grocott's* everybody has got their own private phones. We don't get paid for using our cell phones for work related activities...When I started at David Rabkin, when Rhodes took over they said that we are going to have, everybody is going to get the bill of their cell phones paid and ever since that never happened (Interview, 20/03/07).

Penney's experience at his organisation is not just another complaint. It rather points to the theoretical view that the application of technology can be determined by the

socio-economic arrangements or organisations that form around the devices and practices (Lievrouw & Livingstone, 2002). The organisation arranged landlines instead of cell phones for contacting sources. Penney is aware that cell phones can be useful in extending his communication capabilities in reporting, but that seems not to work for him now. Penney indicates that *Grocott's Mail* encourages reporters to use landlines rather than cell phones in news-gathering.

The interviews reveal that all journalists have cell phones and that they pay for their own airtime for organisational purposes occasionally. They emphasise the lack of funds and blame the organisation for it.

The general manager says she uses cell phones to know the safety of the staff while they are in the field. Otherwise, in the face of high prices of cell phone communication, Vale is unhappy:

Well that is a big problem because my telephone (landline) bill is R26, 000 a month which is incredibly high and a lot of it has to do with cell phones. So, I have to fight with people, particularly the reporters, to talk to people on their landline, not on their cell phones (Interview, 12/03/07).

The company generally encourages the use of landlines instead of cell phones. Vale finds it expensive and unaffordable to make calls from a landline to sources' cell phones. The quote shows even when it is for the purpose of the newspaper, the reporters are closely watched not to engage in cell phone communications using the company's landlines, let alone receiving funds and refunds for using their cell phones in their work.

The manager sees the technologies from her own role as a person responsible for the efficient running of the organisation. Efficiency for her may mean cutting down on bills paid for the occasional landline to mobile calls. Later she attributes the rising prices of communications to the South African mobile operators themselves, "But it is really problematic. It's pushed the price of communication incredibly. So, I suppose until it becomes meaningfully priced it's a problem" (Interview, Vale, 12/03/07).

Grocott's Mail's ICT use here is shown to be dependent not only on the good will of the organisation, but also on the general pricing factors of communications by South African mobile phone service providers. It was indicated in chapter three that there are three dominant cellular telephone operators in South Africa. That leaves subscribers with limited subscription options. Because of a lack of funds, Vale finds the use of cell phones in news-gathering and processing very limited and problematic at the moment.

5.5.3 Constraints of attitudes toward cell phones

Certain negative attitudes towards the use of cell phone form a third emerging theme in cell phone appropriation in news-gathering and processing. Interviewees are generally aware of the networking capabilities of mobile phones that are in the hands of the Grahamstown community. They are all aware of the appealing potentials of cellular phones (Interviews, Ancer, 23/02/07; Mjekula, 27/02/07; Rennie, 1/03/07).

Despite this awareness, some deep pessimism is reflected in the attitudes of some journalists towards deploying mobile phones in news-gathering and processing. Rennie knows that more people have cell phones than computers in Grahamstown but she expresses that *Grocott's Mail* journalists have not yet come to a stage of fully and comfortably deploying cell phones in news-gathering and processing (Interview, 1/03/07).

In support of the theme of negative attitudes towards cellular phone usage, we can find other moderate dislikes in the languages of interviewees. Although Ancer recognises some of the positive contributions of cell phones in interpersonal communications, he bemoans the distractions cell phones cause him. "It is a curse. I think it is always constantly being bombarded. And it can get very frustrating...It is a time better spent on focusing on my work" (Interview, 23/02/07). Again, here his diction to describe the distraction such as 'curse' and 'bombarded' show his irritation with cell phones.

The general manager of *Grocott's Mail* cannot imagine a scenario where cell phones are used in news-gathering in a near future. Her view is as follows: "I'm a 55-year-old woman and I'm not into all these and it has all been a bit of a shock to me in my

lifetime. So, I can't imagine a world in which everything happens on cell phone. I also hate it" (Interview, Vale, 12/03/07).

5.5.4 Lack of a business model

This is another theme that emerges from reading the transcripts between the lines. There seem to be certain personal understandings of and speculations regarding the lack of a business model in cell phone use in reporting. Everyone interviewed says that there has not been a serious discussion held on using this particular artefact and there is not a policy that guides the use of this device. The researcher could not find any written policy document pertaining to issues of cell phones in particular or ICTs in general. However, there are individual speculations about the future. Ancer (Interview, 23/02/07) foresees the benefits that can be made from local companies as one possible model to integrate cellular phones into the local newspaper industry. His idea is basically to SMS news headlines (for example, 'celebrating mother tongue day') to the local community and beneath those headlines to have the names of one or two local sponsors.

Rennie reinforces this theme by putting forward this idea, "Yes, you can't really do anything without money. As a plan to overcome this, I think every newspaper tries to sell as much advertising as possible" (Interview, 1/03/07). Rennie also talks about the possibility of the editorial team trying to grow the readership of the newspaper as a business model. She believes that the more readers *Grocott's Mail* has, the more interested the advertisers will become. Consequently she thinks it becomes easier to sell advertisements (Interview, 1/03/07). Like the editor and the deputy editor, the general manager also forecasts the only way to deploy cell phones in news-gathering is to grow readership and sell advertising (Interview, Vale, 12/03/07). Despite the lack of a business model presently, respondents have the understanding of the complete necessity of having a written business model for cell phone usage in news-gathering.

The analysis and interpretation of the data above revealed four major constraints in adopting cell phones in reporting at *Grocott's Mail*: its relative irrelevance, lack of funds and refunds, negative attitudes, and the lack of a business model.

These emerging themes deserve a theoretical interpretation. When the interviewees referred to cell phones not being a major factor in news-gathering and processing, there is a clear rejection of the technological-deterministic view that the mere presence of mobile networks allows the transformation of a work place by allowing users to produce their own content (Gordon, 2005: 5-6). Although futurists and technological determinists viewing Africa through the lens of the West proclaim that cell phones can be used to connect the less privileged population of the world to the world of digital information (Austrin & Farnsworth, 2005:15), the findings here show otherwise. That is, cell phone use is at the beginning stage even by professional journalists, although it needs further research to examine audience's use of cell phones to contribute tips and story ideas to newspapers. The availability of the network in this particular case could not guarantee its application in news-gathering and processing. The price of communications still remains the curtailing factor to take cell phones to the next level, at least in this case.

Cell phones possessed by the newsroom staff have not in themselves led to the use of them in news-gathering directly or officially. It is true that there is a relatively higher penetration of cell phones than computers and the Internet in the Grahamstown community as well as amongst *Grocott's Mail* staff. However, journalists mention the lack of funds as a possible constraint to using their cell phones freely or without feeling the financial pinch themselves. Futuristic views seem not to account for these factors in this particular case study. Journalists talk about how, in limited ways, cell phones are useful to them but still for them it is far from easy to use them in news-gathering or as a possible media platform, enabling readers to access news on their mobile phones. Some were even very pessimistic in their attitudes towards the possibility of using 3G mobiles as ubiquitous platforms for mobile computing. Given that the mobiles phones owned by journalists here are 2G cell phones, the idea of 3G mobiles is still something distant in Grahamstown. This contrasts with Gordon and Lillie's (2005) and Olsen's (2005) views that mobile computing can lead the way in media. The analysis from the western theoretical perspective overlooks the aforementioned constraints at *Grocott's Mail*, a small-scale African community newspaper.

Following Lievrouw and Livingstone (2002), the constraints are explained more by socio-economic factors or organisational arrangements and the practices that form around cell phone usage in news-gathering and processing. This has to do with institutional culture of seeing cell phones as expensive gadgets that can be fun to play with rather than using them in serious working situations such as news-gathering. Overall, the interpretation of data on cell phones does not support the projected view about the positive deployment of cell phones in news-gathering and processing at *Grocott's Mail* at the start of this study. On the contrary, data show that various constraints hamper the appropriation of cell phones as news-gathering devices as thematically analysed above.

5.6. Conclusion

A separate section was dedicated to describing the state of the existing ICT infrastructure, training demands and financial constraints. This section was meant to provide a general view of the strengths and weaknesses of the existing ICT infrastructure, the real need for training and insights into financial obstacles.

In terms of news-gathering technologies, patterns of ICT usage were classified under three major headings: the Internet, email and mobile telephony.

The evidence and interpretations for the Internet resulted in two major patterns of Internet use: its merits in news-gathering and processing and its unplanned consequences in the same. The themes 'Merits of the Internet in news-gathering and processing' discussed the positive usages of the Internet. The positive usage of the Internet was classified under sub-themes such as researching stories, verifying information, and its use to check competition across other media. The unplanned use of the Internet at *Grocott's Mail* included strong negative patterns such as wasting the company's working time, and lazy journalism. Data and interpretation for the positive consequences of the Internet outweigh negative ones.

The usage of email in news-gathering resulted in the emergence of themes such as its being a tool of flexibility and speed, its use in email interviews with officials and

academics, and its contributions in encouraging participatory journalism. On the other hand, the counterproductive consequences of email include its being a supplementary, not determinant tool in news-gathering at *Grocott's Mail*.

Data concerning the usage of mobile telephony in news-gathering forced the analysis to take a different route from what was projected at the start. Thus, themes that emerged included its not being a big factor in news-gathering, constraints of funds and refunds hindering its use, constraints of attitudes, and lack of a business model to adopt it in news-gathering. The next chapter, chapter six, will present the conclusions and recommendations of the study.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

To restate, the goal of this study was to research and understand *Grocott's Mail* journalists' appropriations of ICTs. Its objectives were to:

- describe the state of the existing ICT infrastructure at *Grocott's Mail*;
- analyse how and why *Grocott's Mail* journalists use the Internet, email and mobile telephony in news-gathering and processing; and
- locate *Grocott's Mail's* technology use within the wider context in South Africa.

The investigation of the three objectives was informed by the social shaping of technology theoretical lens. The purpose of using the SST theoretical framework was to subject these 'black-boxed' ICTs to social analysis.

6.2 Conclusions

The study finds that *Grocott's Mail* embraced the digital ICTs used in news-gathering and processing in 2003 when Rhodes University bought the company. Interviewees believe this move towards adopting technologies for digitising, automating and coordinating the production of the newspaper that serves the interests of the Grahamstown community and the journalism training needs of Rhodes University was a turning point in the technological history of the institution.

The existing ICT infrastructure at *Grocott's Mail* has its own opportunities and challenges. Firstly, on the positive side, the study concludes that with 30 networked and Internet-connected PCs and one laptop for 28 total permanent employees, *Grocott's Mail* boasts an adequate ICT infrastructure for a small-scale African newspaper. These computers were installed with necessary information processing OpenOffice software, and some with premium Adobe design and layout software.

Secondly, the constraints involved in the use of existing ICT infrastructure are identified in the study. These constraints include the huge need for training half of its staff (especially non-journalists) to enable them to utilise the available infrastructure well, and the need to look for ways of raising funds to either upgrade or replace the existing ICTs.

Since the ICTs were embraced, *Grocott's Mail* journalists have appropriated the ICTs in news-gathering for various purposes. The SST perspective has served to explain the uses, intended and unintended, to which the journalists put the ICTs. Firstly, consistent with Lievrouw and Livingstone's (2002) SST conceptualisation, journalists at *Grocott's Mail* have appropriated the ICTs, except cell phones, to enable them to extend their communication capabilities in news-gathering and processing. This is one of the opportunities that the interviewees think of when appropriating ICTs. To this end, data indicate that the Internet is deployed in news-gathering for purposes of doing background research on stories, verifying the accuracy of information and checking competition across other media in South Africa. Interviewees are excited about the present possibility of overcoming space and time barriers and bureaucratic barriers heralded by their use of the Internet. Although journalists appropriate email the same way they appropriate the Internet in terms of extending their communication capability, there are also some useful insights into the distinctive opportunities email technology offers in news-gathering and processing. Thus, the study concludes that email is positively appropriated in news-gathering as a tool of flexibility and speed, as an interview tool, and as a technology that promotes participatory journalism. The informants viewed these advantages of email against a heavy dependence of the organisation on the traditional letter that required stamps and signatures a few years ago. The traditional-paper based letter was condemned for its slow and physical nature.

Despite the strengths of the Internet and email in news-gathering, interviewees see them as presenting their own problems. Interviewees had no complaints about the affordability of email and the Internet as they are connected at the expense of the company. However, there are other challenges. For instance, in the case of the Internet, it can be concluded from the data that there is a rising concern about its unintended consequences of wasting the company's working time and resulting in

lazy or press release journalism. Heavy dependence on other online sources was mentioned as a huge challenge at the company. The time wasted is more or less related to the games and chats journalists engage in during critical production hours. On the other hand, challenges related to email include its limitations because of what interviewees view as its supplementary and small-scale use because of its low contextual richness as opposed to face to face interviews. The appropriated challenges of the ICTs the Internet and email seem to partly come from the various choices and decisions journalists make in their daily routines rather than being determined by the 'inner technological logic' as per the SST perspective. The lack of a written ICT policy at the company further exacerbates the problems.

With regard to cell phones use in news-gathering, data suggest a different conclusion. Cell phones have not yet been routinely deployed in news-gathering due to various constraints. These are mobile telephony's not being a big factor in reporting, the constraint of lack of proper funding and refunding scheme, constraints of negative attitudes toward cellular phones, and the lack of a business model. Therefore, it is possible to say that cellular phones have little or no relevance in news-gathering at *Grocott's Mail* presently.

The constraints of cell phone use in news-gathering do not arise from the lack of infrastructure, as everybody in the newsroom possesses their own cell phones. Rather, the sources of these constraints have to do mostly with the organisation's reluctance in institutionalising the artefact in news-gathering while also some individual negative attitudes are evident from the data. Like other ICTs, the study showed that trying to analyse cell phone use separate from its social and organisational contexts is a futile exercise. The presence of cell phone networks have not resulted in their deployment in news-gathering in and of themselves. This is a finding consistent with Lievrouw and Livingstone's (2002) proposition that the socio-economic arrangements or organisations that form around the devices and the practices determine their deployment. At *Grocott's Mail*, the institution is arranged in such a way that only landline use is paid for and justified in news-gathering and processing. As far as the communication activities that happen around this are concerned, the interviewees lament that they are discouraged from using cell phones as much as possible.

According to the practice at the newspaper, there is a tendency to take communication over landline as normal and communication with cell phones as abnormal.

6.3 Theoretical reflection

The opportunities and challenges of news-gathering technologies discussed above have gained a lot from adopting the social shaping of technologies as a theoretical framework. Unlike in technological determinism this study did not attribute the successes and failures of ICT deployment to the technologies (the Internet, email, and mobile telephony) or to humans (*Grocott's Mail* journalists) alone. It rather pointed out how both mutually interact and shape each other. That is why this study does not see artefacts as having 'impact' on society, work, organisation, skills and activities (Williams & Edge, 2001: 60).

The word 'impact' is a problematic one that is associated with technological determinism, and the moment we start using it, the focus will be on technologies as agents of change rather than on the dynamic interplay of both the human and technical (Lievrouw & Livingstone, 2002: 6). 'Impact' studies also lay emphasis on a 'top down', celebratory approach of the type that some governments and markets tend to take towards the study of technologies, specifically in African circumstances. Some writers believe that the SST model helps to explain 'why the excellence of a particular technological solution or the availability of sufficient finances to fund a development will not, as such, guarantee its success' (Williams & Edge, 2001: 55, 59). This research endeavour has revealed the distinction between the 'technical' and the 'social' is not given but socially contingent and constructed. The findings and the conclusions of this study point to how news-gathering and processing technologies such as the Internet, email, and mobile telephony are constructed by the interviewees to have certain merits and demerits.

What is seen in both the advantages and the disadvantages of the appropriation of ICTs discussed is that various individually and flexibly constructed meanings of technologies exist. According to the SST perspective, what technology is, what it can do, and what constitutes its effective working and so on are all subject to 'interpretive flexibility' in the context of its production and consumption (McLoughlin, 1999: 10).

Although interviewees do not explicitly refer to this interpretive flexibility in terms of the news-gathering context of consumption of the technologies, it can be extrapolated from their views that how they understand and use technologies is what is making and breaking the application of technologies in news-gathering. This is a departure from a technological-deterministic approach often advanced by some African governments, the market, and some researchers who often overlook the symbiosis between the social and the technical aspects of ICTs as can be exemplified by this case study.

Previous researchers in Europe and America used the metaphor of the ‘seamless web’ to indicate the mutual shaping of the ‘human’ and the ‘technical’ in an attempt to deemphasise technological essentialism focusing on researching ICT ‘effects’ or ‘impacts’ (Bijker et al. 1987: 3).

Theoretically and practically the study has chosen the lexes ‘ICT appropriation’ from SST to mean ‘setting ICTs apart for a particular purpose or assigning them for particular purposes or uses’. In this case study, ‘appropriation’ means technology is not seen as something that has been externally imposed on organisations and users, rather it has been viewed as something that can be co-determined and realised by the actual nature of the technology itself and the way journalists make flexible senses out of them in news-gathering situations. Consistent with the SST, that means the study shows us that news-gathering technologies such as the Internet, email, and mobile telephony are ‘embedded’ with different interests, values and assumptions of the news-gatherers at the deployment level. The advantages and disadvantages explored are to some extent because of the way humans appropriate the technologies. This is consistent with McLoughlin’s (1999:127) assertion that “instead of being ‘black boxed’ at the point of invention, the characteristics of a technology are seen as being constantly shaped and reshaped by feedback and interaction that occurs during their ‘upstream’ deployment.” Subjecting those ICTs to social analysis is then a major theoretical gain that is attributed to the SST in this case study.

Although the conclusions drawn here may not be generalised beyond the case, the author believes that the change from vocabularies of technology determinism such as ‘impact’ to ‘appropriation’ have helped to better understand ICT usage in news-gathering and processing.

It is evident that some international conferences on ICT use are dominated by themes that have been shaped along ‘impacts’ and more often than not, the outcomes will be threats of one sort or another. For example, it is argued, if the print media specially newspapers do not embrace ICTs, they will die or become extinct (WAN 2007, Cape Town, in Mail&Guardian, 5 June, 2007). This study is not about embracing the digital future as *Grocott’s Mail* already embraced ICTs four years ago. The company is at the phase of ‘innofusion’, which refers to a post-adoption shaping of technology during its use (McLoughlin, 1999: 123). There is no doubt about the vitality of ICTs in extending the digital reach of the newspaper, but sometimes the aspired reach may not be attained because of the problems of not balancing the relationship between technology and the human workers.

6.4 Recommendations

The foregoing section of this chapter dealt with conclusions and theoretical reflection based on the findings. This section makes key practical recommendations for *Grocott’s Mail*.

Based on the findings, this study strongly recommends that it is possible to overcome some of the problems of ICT usage in news-gathering if *Grocott’s Mail* journalists and the administration take the following actions:

- Use this research as a guide to formulate a written ICT policy.
- Focus on skills and capacity building of staff to enable them to fully utilise the existing technological infrastructure.
- Establish schemes for overcoming the financial constraints in cell phone use in news-gathering whereby funding or refunding journalists will be possible.
- Update OpenOffice software continuously with their latest free versions because they are useful in cutting *Grocott’s Mail* expenditure on premium software. The study finds at present these software programmes are not updated.
- Upgrade the memory capacity of the existing computers.

6.5 Areas of future research

This research, a first case study of *Grocott's Mail* at an MA dissertation level, investigated *Grocott's Mail* journalists' appropriation of ICTs in news-gathering and processing. Thus, the conclusions drawn must not be taken as definitive, but as a spring board for further research. First, future research may investigate display technologies; that is artefacts that are used to present information to the end user, and audience member, or consumers of information (Pavlik, 1996:3). Second, the *Grocott's Mail* website needs a separate case study in this regard.

6.6 Conclusion

This chapter concluded the case study of *Grocott's Mail* journalists' appropriation of ICTs in news-gathering and processing. It specified the present opportunities and challenges of the ICTs in focus. It reflected on the social shaping of technology theoretical lens which helped explain the findings. The study also proposed other important areas of research.

Appendices:

Appendix A: In-depth individual interview guide

The purpose of these interview questions is to obtain qualitative data on journalists' appropriation of ICTs in news-gathering and processing with reference to *Grocott's Mail*. The questions cover the dimensions of technologies that assist in news-gathering and processing and their social and professional aspects; how they are appropriated by journalists in their daily routines. Some of them are meant to explore the background of the newspaper in general and the current state and prospect of technology at *Grocott's Mail*. The data gathered will be used in line with research ethics. Anonymity and confidentiality of informants are duly respected.

Category I: History and background

1. When was *Grocott's Mail* established and what has its journalism been like pre and post 1994? Have the general changes in media in South Africa impacted your organisation in some ways?
2. Down the line, can you think of the production technologies that *Grocott's Mail* has adopted? (It can be anything from fax, fixed telephony to present digital technologies).
3. Administratively, how does *Grocott's Mail* relate to Rhodes University?
4. Who owns *Grocott's Mail* now?
5. How do you compare the present and past ownership of the newspaper in terms of ICT adoption? (Its integration in news gathering and processing).

Category II: Internet and Internet applications

a) Internet

1. To start with the term, generally what do you understand by the term 'Internet'?

2. How much has the Internet penetrated in the newsroom (can you think of times when *Grocott's Mail* was without connections and the times after it has got one)? What is the difference anyway in news gathering and processing?).
3. Do you remember when you first got your connection? How was it received by the newsroom? (As an old African community newspaper, was the adoption process slow or fast, you think?).
4. Can you explore how it assisted you (your newsroom staff) in gathering and processing news? (What changed in the newsroom as result of its adoption? Has the production process improved or declined?).
5. Do you (your newsroom) sometimes resort to retrieving facts, opinions and information on the Internet as a way of gathering news, and how are those processed?
6. Do you use the Internet to access press releases, news and reports from your local as well as central government? How does that help you as a journalist? (Think of the time, and resources saved or unsaved). You can tell me the prospects if you are not now at this level.
7. Do you use the Internet to contact professional sources, groups, and civic society organisations in South Africa or elsewhere? (Raise the advantages and disadvantages).
8. How do you think the Internet especially the World Wide Web can help you or not to promote the twin goals of *Grocott's Mail* (that is, community building and being a training ground for Rhodes University journalism students?).
9. You have a digital edition of *Grocott's Mail*. How does that count in terms of future convergence trends and in promoting the print edition?
10. If you are not so much relying on the Internet for information now, what will the prospects of your organisation be in terms of convergence reporting?
11. Do you think that the cost you pay for Internet services has impact on its use? Is it expensive to limit usage? (Can *Grocott's Mail* afford paying for ISPs?)

b) Email

1. What does email mean to you as a news-gathering and processing technology?
2. Does it create any dynamics in individual and group communications within and outside *Grocott's Mail* for the sake of journalism? (Please give me examples).
3. What do you think e-mail's significance is for you (your newsroom staff) in terms of cost, and distance in finding sources?
4. Is it difficult to rely on email interviews alone as opposed to face to face ones? (Can you verify sources? Is it more convenient or what?).
5. Is email important in filing stories, establishing a channel of communication between the editor and reporters, receiving story suggestions from readers?
6. Is your (your newsroom staffs') email address put publicly on the website or in the newspaper? What do you feel about that?
7. Is there any dangers or miscommunications you have had at *Grocott's Mail* in your attempt of gathering news (see it against lazy journalism, authorship problems).
8. Suggest any advantages or disadvantages of email as you have known it at *Grocott's Mail*.
9. If you use email listservs, what do you think their role is in creating networks and interactions amongst members?
10. Rhodes University has got a number of email list groups for its academics as well as students of different departments and years; do you sometimes use those for purposes of getting some ideas for stories?

Category III: Mobile telephony

1. How much has cell phone use for reporting penetrated *Grocott's Mail*? (any divide within the newsroom, and is your air time paid for by Grocott's Mail)
2. What is the status and prospect of using cellular phones in gathering and distributing news for *Grocott's Mail*?
3. What matters to you most when you use mobiles (think of sound, text, and images) in creating and sustaining interactions among colleagues and sources?
4. Do you feel controlled as a result of using mobile telephony in reporting? (Think of managers calling you to cover stories while you are off your job).

5. How do you think the mobile technology assists in distributing content now or in future? (What kind of business model do you think it requires to make profit?).
6. How many cultural products do you receive on your cell phone from your mobile operator(s) like Vodacom, MTN, Cell C or any? Do they regulate copy righted material? (Digital rights management).
7. How do you look at the prospect of the growing mobile network in news production and distribution?
8. How do you express your understanding and usage of cellular phones as a social stage, network?
9. With third generation mobiles (3Gs), the idea of mobile computing (using mobiles as PCs or terminals) is heard of these days. What do you think the prospect of *Grocott's Mail* will be in terms of that? Are you ready to use this new platform to gather and spread news or content?
10. Any new insights you want to add to these are welcome.

Category IV: ICTs, issue of multi-skilling, newsroom culture, and ethics

a) *Grocott's Mail* technological status and prospects

1. Can you please tell me about the status of the existing computers that you (your newsroom) have and how you appropriate them and make use of them in reporting? (Consider it with network resources and softwares that you work with closely).
2. Please explain if your newsroom is constrained by shortage of funds to buy and install relevant and cutting-edge ICTs.
3. At *Grocott's Mail*, do you think there are adequate technological infrastructures to meet your specific reporting need? (Tell me what your needs are and what you want to acquire).
4. How do you think the technologies will give you the much told advantage of great efficiency, flexibility, reduced cost, and speed in reporting? Why? Why not?

5. If you use them, can you mention how you make sense of the usage of fax communications, electronic image scanning and processing, and still picture and video capturing technologies?
6. As a journalist, do you (your newsroom staff) use digital photo processing? And if so, suggest existing weaknesses and strengths and what has to be done in the future?
7. How do you view the way you file a copy of your stories? What are the processes involved?
8. How do you think making use of offline and online databases and libraries help you or not help you in news-gathering? (Think of your archives).
9. If you are a graphic editor, are there special types of computers such as Apple Mcintosh, installed with right software, available to you? (Your comments please).
10. How do you or your newsroom staff cope with new editorial and design skills if the technologies so demand?
11. In news gathering, how do you evaluate the strengths and weaknesses of the use of traditional contacts and digitally mediated contacts? (Which one do you prefer?).

b) Multi-skilling

1. How do you think the introduction of ICTs in your newsroom requires new skills and adjustments in reporting? (was there a significant change in journalistic methodology of production from the previous).
2. Do you perceive problems with any multiplication of roles and skills that you think you are not paid for?
3. Have you ever been reluctant and tentative in your usage of ICTs for news gathering because of fear of skills requirement? (Are age and training problems?)
4. Do you think you or your newsroom staff needs further training in ICT tools such as spreadsheets, databases, internet searching, word processing, and pagination in order to be equipped and to bridge the digital divide from within? Why?
5. Are you required to work for both the print edition and the digital edition?

6. Given growing technological change, what do you think Journalism schools have to focus on? Is it technology or the fundamental journalism skills such as writing and reporting that must be given priority?
7. How do you think technology has affected the structure of the newsroom (e.g. have the print and digital editors tried to move their offices to the same building?)
8. If you are to work across media platforms (newspaper and website, or say if *Grocott's Mail* converges with Cue TV, Radio Grhamstown), do you think *Grocott's Mail* has to pay you more money for the work you produce?
9. What negative consequences of multi-skilling do you think exist at *Grocott's Mail*?
10. Do you think being busy with the technologies distracts you from focusing on interviewing and reporting?
11. How do you evaluate your role as a journalist in the context of using ICTs for reporting?
12. Do you believe journalism is declining as a result of the multi-skilling requirements at *Grocott's Mail*?
13. What is the approach of your news organisation? Does it use technologies to achieve quality of reporting or to cut the budget? (Whose interest does technology serve? Yours or your institutions? (Elaborate).

c) Culture and language

1. What do you understand by newsroom culture?
2. Before and after the introduction of ICTs into the newsroom, what have the working cultures been like?(old cultures associated with non mediated contacts, and new cultures with mediated ones)
3. Do you notice any change in your (your colleagues') language use, vocabularies and jargon associated with ICTs?
4. How about those who speak non-technology related English? (Suggest if that has led to conflicts in news-gathering and distribution process and your plan of reconciling both for harmony).
5. Have the editorial rules and principles changed to govern this new regime?

6. Do you think the technologies have increased a sense of collegiality and the collaboration of journalists in news gathering?
7. Is there any cultural-linguistic divide, and digital divide in your newsroom? How does it affect you (your newsroom)?
8. What do you think the role of the editor and the manager should be to control these differences?
9. Do the technologies in use (like the website, email etc.) promote dialogical journalism (open journalistic culture) where the audience is empowered to contribute stories or comment on them? (Please elaborate on participation).
10. Do you think there are any limitations imposed by technology on cultural expressions or vice versa? (Please tell me if mutual influence exists between the two at all)?

d) Ethics


1. What is the implementation of ethics like at *Grocott's Mail*? (Please tell me if you discuss it in editorial meetings?)
2. Have you (your newsroom) ever been criticised for unethical stories, pictures, videos gathered and processed by ICTs. (Please elaborate how you did go about that?).
3. In situations of news gathering using technologies, have you (your colleagues) felt guilty of having interfered with the privacy of sources using ICTs?
4. Do you remember having faced accusations or complaints regarding misrepresentations using digitally manipulated pictures or videos on your newspaper? Do you think that is a strong ethical challenge?
5. How about using ICTs in fabricating news stories?
6. Do you (your colleagues) face ethical dilemma in confirming and validating facts, and authorship of electronically retrieved information?
7. What are the principles that you use at *Grocott's Mail* to put ethical safeguards in news writing and publishing process?
8. Any special comments on ethics and technology at Grocott's Mail please?

Note: The questions were not asked one by one as mostly contingencies in the field work involved ignoring some of the minor questions. Although

the guide was there, the interviews were semi-structured, in-depth individual ones varying based on roles and positions of interviewees.

Appendix B: Fieldwork introductory letter

Habtamu: Fieldwork Inbox

[Reply](#) 

☆ from **Fackson Banda** <f.banda@ru.ac.za> details Feb 20

hide Feb 20

to Jonathan Ancer <j.ancer@grocotts.co.za>

cc Habtamu
* Dugo <boruufwaqaa@gmail.com>

date Feb 20, 2007 12:44 PM

subject Habtamu: Fieldwork

mailed- ru.ac.za

by

Dear Jonathan,

[Reply to all](#) [Forward](#)
[Print](#) [Add Fackson to Contacts](#)
[list](#) [Delete this message](#)
[Report phishing](#) [Show original](#) [Message text garbled?](#)

Sorry to budge in on you like this, but this is to ask you to allow Habtamu Dugo, my student, to undertake his field research at the Grocott's Mail. He is researching into journalists' appropriation of ICT, and he would like to use your newspaper as a case study.

Any assistance you accord to him will be highly appreciated.

Yours sincerely,

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Read my weekly column in the series "Media Discourse" in The Post, available online at
www.postzambia.com.

Appendix C: *Grocott's Mail* interviewees' profile

Name	Position/Role at <i>Grocott's Mail</i>	Qualification	Experience
Jonathan Ancer (23/02/07)	Editor	PG Diploma in Journalism and Media Studies (Rhodes University). BA in Politics and Law (Witwatersrand)	He worked at <i>The Star</i> , a Johannesburg-based daily newspaper, (2001-2006). He was a journalist at <i>Directions</i> , a Johannesburg-based general interest magazine (1996-99). He was a freelancer for <i>Mail&Guardian</i> and <i>Sunday Times</i> as features writer. Ancer worked as a researcher at the Independent Board of Inquiry (1990-1992).
Louise Vale 12/03/07	General Manager	BA (Honours) in English and Xhosa (Witwatersrand), PG Dip in Education Policy and Development (University of Cape Town). H.D.E. in English, Xhosa and Biology (Rhodes University).	Worked as high school teacher in many high schools for a long time, and worked in various leadership capacities in many organisations before she became a general manager at <i>Grocott's Mail</i> .
Gill Rennie (1/03/07)	Deputy Editor	BA (University of Pretoria), National Diploma in Journalism (Technikon Natal),	She was a lecturer at Rhodes University School of Journalism and Media Studies. Rennie had had also a wide-spanning experience at a variety of print media and worked as

			reporter, sub-editor, section-editor, reviewer, writer, arts publicist, co-writer of the TRC findings, worked for Cue newspaper for 7 years.
Luvuyo Mjekula (27/02/07)	Senior Reporter	National Diploma in Journalism (Border Technikon)	He worked as news reporter, as senior reporter (2004) and as a news editor (2005) at <i>East Cape News</i> before he joined <i>Grocott's Mail</i> .
Stephen Penney (20/03/07)	Photographer/Sports Reporter	Studied the course Marketing and Communications for 1 year (Grahamstown Technical College).	He has worked as photographer for the last 20 years; he is also the sports reporter at <i>Grocott's Mail</i> .
Rod Amner (10/05/07)	Lecturer at Rhodes University	BJourn (Rhodes University)	He worked as director of Development Media Agency, editor of Development News Agency also as a sub-editor and journalist.
Joe Alferts (16/08/2007)	Technology manager at Rhodes University	BA, LLB (University of Pretoria)	He worked in the field of technology for the North West Department of Education, was head of media production studio at the University of North West.

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