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## Chapter 9

# The Scope and Appetite for Technology–Assisted Sensitivity Reviewing of Born–Digital Records in a Resource Poor Environment: A Case Study From Malawi

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### ABSTRACT

*Concerns about sensitive content in born-digital records seem to be a major factor in inhibiting the deposit of public records in dedicated digital repositories in Western countries. These concerns are much exacerbated by the changed nature of the process of reviewing records. The University of Glasgow, working in collaboration with the Foreign and Commonwealth Office, received funding to investigate the technology-assisted sensitivity reviewing of born-digital records. As part of this research, some preliminary research in a commonwealth country in Sub-Saharan Africa was carried out. The research, reported in this chapter, was carried out in Malawi by the late Dr. Mathews J. Phiri. He found that already there is a real, albeit limited, demand for technology-assisted sensitivity reviewing of born-digital records in Malawi. The available evidence suggests that within the next decade there is likely to be an increase in the need for effective means of assessing sensitivity in born-digital records.*

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## INTRODUCTION

For many years a spirited debate has taken place over the custody of digital records (Tough, 2004). There are those who argue that records created digitally should be retained by the creating agency and the future role of archivists should be as facilitators of access (Upward, 2000). In the opposing camp are those who argue that archives must continue to take records into custody, irrespective of the format in which they are created (Cunningham, 2011). In recent years, the second group has prevailed. Large and expensive digital repositories have been created in Australia, the United Kingdom, the United States and elsewhere. However, most of the digital repositories remain massively under-utilised. Short-lived public bodies like Royal Commissions and other enquiries do deposit their records as they are bringing their existence to an end. However, few ministries, departments or agencies do so.

Concerns about sensitive content in born-digital records seem to be a major factor in inhibiting deposit of public records in dedicated digital repositories. In Western countries, this concern is primarily of two types. Firstly, there is concern in relation to sensitive personal data of the kind that is covered by data protection laws (e.g. regarding a person's denominational affiliation, sexual orientation, earnings, bank account details, et cetera). Secondly, there are concerns about national security, defence, anti-terrorist initiatives, et cetera). As Sir Alex Allan has expressed it, in relation to the British context (Allan, 2014):

*The risk if this issue is not addressed satisfactorily is either that material will be released to TNA without proper review, leading to embarrassment when sensitive material is found to be in the public domain; or, perhaps as a reaction to the discovery of such releases, departments become risk averse and apply for blanket closures of records*

Difficulties of the kind described by Sir Alex Allan are exemplified in events in the USA surrounding the release of e-mails created by Hillary Clinton as Secretary of State and controversially stored on a private server (Westwood, 2016). There were widespread complaints regarding the long delays in making these available: the delays were due to an acute anxiety that sensitive material might be accidentally made public. Approximately 30,000 e-mails had to be reviewed and, as the review was conducted by human beings without advanced technological aids, this proved a lengthy undertaking.

The concerns outlined above are much exacerbated by the changed nature of the process of reviewing records. Until quite recently, public records characteristically took the form of well-maintained filing systems, run by specialist records staff, which presented large numbers of individual documents in logical relationship to each other (Reed, 2005). This is no longer the case. Despite the availability of Electronic Document and Records Management Systems [EDRMS], the great majority of contemporary public sector records take the form of digital objects created and kept in poorly-organised systems that fail to create persistent links between related items (Moss, 2005). So reviewing often involves adopting a document by document rather than a file by file approach. This shift has tended to undermine long-established practices that involved retired civil servants, often people of high intellectual calibre, gathering to spend mornings reviewing files before going to an agreeable lunch. This productive human dynamic is not readily applied to the reviewing of born-digital records.

In the face of these challenges, it is hardly surprising that The National Archives of the United Kingdom has begun to investigate the possibility that technological solutions may help to address problems created by technology. TNA has undertaken these investigations in conjunction with several Higher Education Institutions. It has become clear that the way forward will not be straightforward. An aspect of this is the

significance of context. Some statements are sensitive if made in a civil service briefing and not sensitive if made in a newspaper article. Similarly, words uttered in a cabinet meeting may be confidential whilst the same words said in Parliament and recorded in Hansard cannot possibly be regarded as sensitive. So it has been accepted that it is not realistic to think that human intervention can be eliminated: what may be achievable is technology-assisted sensitivity reviewing of born-digital records. In essence, this involves extending Information Retrieval techniques and technologies in such a way as to support reviewers (McDonald, Macdonald & Ounis, 2014; Sebastiani, Esuli, Berardi, Macdonald & Ounis, 2015).

In 2016 the University of Glasgow, working in collaboration with the Foreign and Commonwealth Office, received funding to investigate the technology-assisted sensitivity reviewing of born-digital records generated by British diplomats at home and abroad. As part of this research it was agreed to carry out some preliminary research in a Commonwealth country in Sub-Saharan Africa. The shared legacy of legal and administrative systems makes this a sensible way to proceed. Malawi was selected as the site of this research for two reasons. Firstly, because Malawi is one of only 8 African countries to have signed up to the Open Government Partnership, thereby committing “to promote transparency, empower citizens, fight corruption, and harness new technologies to strengthen governance” (Open Government Partnership, undated). The emphasis on new technologies by the Open Government Partnership may be regarded as characteristic of donor behaviour. As Michael Moss has put it “Donors have insisted that such countries adopt new technology to manage business processes with little thought as to how born digital information, essential for the accountability of government, will be released by due process into the public domain” (Moss, 2016). In addition, the existing networks connecting people in Glasgow University with Malawi were a factor in selecting that country as the location in which to carry out the work.

## **OBJECTIVE AND METHOD**

One of the objectives of this research project was to establish whether there appears to be an African perspective on these questions and a perceived need for change. The research in Malawi was focussed on parts of the public sector that are located at a distance from the capital, Lilongwe, as it was felt this approach might bring some interesting issues to light. The work was carried out by the late Dr Mathews J Phiri of Mzuzu University: a tribute to him appears as an appendix to this chapter. Amongst bodies at which field research was carried out were the following: the Judiciary (in Blantyre); Public Private Partnership Commission (in Blantyre); National Records and Archives of Malawi (in Zomba); National Statistical Office (in Zomba). In November 2016 Dr Phiri carried out research visits to these bodies, interviewing senior members of staff, witnessing demonstrations of systems and collecting documentation

## **FINDINGS**

The research proved to be timely, not least in respect of the National Records and Archives of Malawi which is going through a period of profoundly significant change (Interview Lihoma, 2016). Of particular importance to this research, the Access to Information Bill being considered by the Malawian Parliament at the time of the field research provided that records (including born-digital records) should be transferred to the National Records and Archives of Malawi for public access after seven years. This legislation was signed into law by the President in 2017 (Khamula, 2017). This creates a challenging

situation, given that hitherto the National Records and Archives of Malawi has regarded sensitivity reviewing as the responsibility of depositing ministries, departments and agencies. At the very least, the National Records and Archives of Malawi will need to expand its skills-base to provide advice and guidance in response to such a change. The challenges facing the National Records and Archives of Malawi in respect of sensitivity reviewing of born-digital records need to be understood in the context of other major changes. Structurally the National Records and Archives of Malawi is reorganising itself from being a sub-department to become a fully-fledged department in its own right. Physically it is preparing to relocate its headquarters from Zomba to Lilongwe. Its operating legislation is also evolving to include digital records in the definition of a record.

It is anticipated that a prime source of born-digital records will be the Government Area Wide Network (GWAN) (Interview Lihoma, 2016). The GWAN project is at an early stage. The goal is to have an integrated network connecting all government offices, starting with the headquarters of ministries, departments and agencies in Lilongwe. It is intended that the services provided by GWAN will include

- Integrated Financial Management System (IFMIS)
- Human Resources Management Information System (HRMIS)
- Internet
- Email
- LAN services for ministries and departments
- Network security
- Website hosting for, amongst others, [www.malawi.gov.mw](http://www.malawi.gov.mw)

At present GWAN is slow and often down. However, the Regional Communications Infrastructure Project (RCIP) which is being financed by the World Bank has the potential to transform the effectiveness of GWAN (Interview Mwangwela and Mnthambala, 2016). RCIP aims to take advantage of the fibre-optic cables that pass from South Africa to Tanzania through Malawi to improve the quantity, availability and affordability of broadband within Malawi for both public and private users. RCIP could provide the capacity and reliability that GWAN currently lacks. So born-digital records and the challenges associated with sensitivity are matters that the public sector in Malawi will need to address in the near future.

What of the current reality? The capture of essentially oral communication is an integral part of well-designed and implemented record keeping systems. It is evident from the results of our research that many oral communications – both those occurring as one-to-one conversations by phone and those taking place in face-to-face meetings are not recorded at all. From the perspective of this research project, the big issue here is the absence of digital records that can be assessed for sensitivity. However, it should be acknowledged that the record keeping system run by the judiciary represents an exception to this pattern. Their EU funded Electronic Case Management System is seen as a virtual revolution in the judicial system's handling of cases (Interview Kumukani, 2016). At present it covers the higher judiciary and the Directorate of Public Prosecutions. It enables users to track the progress of cases through an integrated national e-justice system. Of particular note is the convention that telephone conversations relating to cases should be captured in writing in a digital format and the summary of the call should be circulated to colleagues. It is a moot point whether a full and effective implementation of GWAN would significantly reduce the widespread reliance on un-recorded oral communication in other parts of the public sector.

Then there is the challenge of managing e-mail accounts provided by third party services and used for the transaction of public business. In this respect there is a well-defined distinction between the Judiciary (at least, the higher judiciary) and the Public Private Partnership Commission (PPPC) on one hand and the National Records and Archives of Malawi and National Statistical Office on the other. The former possess reliable internal, i.e. official, e-mail systems whilst the latter do not. As a result, officers in the National Records and Archives of Malawi and National Statistical Office who wish to get on with their work are obliged to make use of free private e-mail systems like Hotmail and Yahoo. From the perspective of this research project, the big concern here is that many digital records are being created and/or transmitted in such a way that they are not captured in official systems and that therefore they cannot be assessed for sensitivity. For the time being, the National Records and Archives of Malawi and National Statistical Office are closer to the reality of the bulk of the public service, in that they have comparatively weak digital record keeping capacity.

It is worth giving some further attention to the PPPC, as their experience may give some indicators regarding the future. The PPPC is the implementation agency for Public Private Partnerships in Malawi and is responsible for developing guidelines on best practices to ministries in the roll-out of their PPP projects. It is the successor body to the Privatisation Commission and has inherited from that body a good record keeping system that is a hybrid of digital and analogue components. In passing, it is worthy of comment that when 50 public bodies were assessed for their auditing capability in 2011 only 2 received praise for the quality and comprehensive nature of their systems, and one of these was the Privatisation Commission (SGS, 2011). Now the PPPC aspires to a fully digital system. If GWAN is operationalised successfully then the experience of the PPPC may serve as an exemplar for implementation.

## **FUTURE RESEARCH DIRECTIONS**

Already there is a real, albeit limited, demand for technology-assisted sensitivity reviewing of born-digital records in Malawi. The available evidence suggests that within the next decade there is likely to be an upward step-change in the need for effective means of assessing sensitivity in born-digital records.

It is worth bearing in mind, however, that Malawian (and possibly other Sub-Saharan countries) perspectives on the matter may be different from those espoused by the public sector in the UK, USA and continental Europe. As the author has written in a previous publication (Tough, 2009) sub-Saharan African countries:

*May hold to concepts of accountability that are different from contemporary Western notions. In particular, they may see the eradication of corruption as primarily a matter of making corrupt officials and politicians accountable to the President via the machinery of government. . . . Harvard University's Robert Rotberg has pinned his hopes for progress on strengthening African leadership ... A similar stance has been adopted by Mo Ibrahim in establishing his foundation to promote ethical conduct on the part of leaders.*



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## **APPENDIX**

### **Mathews Phiri, An Appreciation**

Mathews was a gifted teacher, a dedicated research academic and excellent company. He was a good friend too, invariably cheerful and positive in his outlook. Tragically he died, suddenly and utterly unexpectedly, just as he was setting out from Mzuzu to Glasgow to attend his Ph. D. graduation ceremony.

Mathews was originally from Nsanje in the low-lying and intensely hot far south of Malawi. His mother later moved to the Chikwawa district, closer to the big city of Blantyre but still in the Lower Shire valley. He studied at the University of Malawi, then the only university in the country. After graduating he taught mathematics in secondary schools for a time. His gifts as a teacher were noticed and he was offered a lectureship in Information Studies at Malawi's second public university in Mzuzu. When it was recognised that his department needed someone to teach Records Management, Mathews agreed to go overseas to obtain a recognised qualification. He spent a happy year in Aberystwyth where he obtained his master's degree.

Mathews was particularly well suited to the role of leading on Records Management as he had a strong commitment to the subject. Mathews' teaching duties at Mzuzu University were far from straightforward. His classes characteristically consisted of a mix of students, some of whom had good academic qualifications but little experience in the workplace whilst others had a good deal of relevant experience but modest qualifications. He managed this challenge with aplomb, seeking to engage both experience and intellectual attainments in the classroom.

Early in the twenty first century it was recognised that Malawi needed a postgraduate degree course in Librarianship and Information Science that would incorporate major archive and records studies components. After a prolonged period of preparation, an MLIS course was inaugurated at Mzuzu. The preparatory work was supported by the Scotland Malawi Partnership.

It was recognised that teaching the MLIS course would require well qualified academic staff. So Mathews returned to the UK to undertake doctoral study in the University of Glasgow. His research topic was the management of records in higher education in an era of corporatisation. He proved to be a conscientious and able research student. In particular, he accepted constructive criticism with great good will and made good use of advice when it was offered.

Mathews died from heart failure. In the week prior to his death, there had rarely been power in Mzuzu. On the day before Mathews died the power was on, so he started to catch up on the backlog of e-mail, word processing et cetera. The power stayed on all night, so he worked all night. The next morning Mathews should have driven to Lilongwe to begin his journey to Glasgow but he felt very ill. His wife Elizabeth called an ambulance and they got him to the nearby Regional Hospital quickly. There a cardiac illness was diagnosed and oxygen and an intravenous drip were provided. This resulted in a marked improvement in Mathews' blood pressure, pulse and respiration. Then a decision was made to move him to a ward. Unfortunately, the hospital could not provide oxygen whilst moving Mathews. Whilst the trolley was being moved from the Accident and Emergency Department to the ward, Mathews died of heart failure.

Mathews was a practising Catholic. During his time in Glasgow he joined a congregation made up almost entirely of Africans – mainly Nigerians – where worship was conducted without the inhibitions found in many Scottish churches.

Mathews Phiri was born 14 Feb 1972 in Nsanje and died on 22 Nov 2016 in Mzuzu.