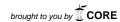
# Singaporean and Nigerian journalists' perceptions of new technologies

Levi Obijiofor

milar papers at core.ac.uk



provided by University of Queensland eSpace

This analysis of Singaporean and Nigerian journalists' perceptions of new technologies suggests that new technologies are regarded as useful tools for modern journalism practice but they are also seen as facilitating unethical journalism practice. The study found that journalists believe that new technologies have improved rather than harmed newspaper quality. The results also show a great disparity in the diffusion of technology in Singaporean and Nigerian newsrooms. Computer technology is more common in Singaporean newsrooms than in Nigerian newsrooms. Lack of training opportunities for senior editors and lack of access to the new technologies constitute major obstacles to technology diffusion in Nigerian newspaper organisations. But Nigerian journalists were more optimistic than Singaporean journalists about the impact of new technologies on the future of journalism practice.

## Introduction

Debate about the impact of new technologies on journalism practice remains unsettled. On one hand the new technologies are perceived as the basic tools for survival in the new millennium. On the other hand, there are arguments which state that the new technologies have done nothing but displace experienced journalists and that new technologies now require journalists to be skilled in areas that have nothing to do with their traditional professional roles. Generally, there is growing optimism that the new technologies

have helped journalists to acquire new skills, to do things better and more efficiently in the workplace. For example, Russial (1994, p. 91) argues that technological innovation in many newsrooms such as visual display terminals (VDTs), online library systems, pagination systems, electronic photo desks, and computer graphics terminals have transformed the news production process. Morton (1993) states that new technologies have helped to promote "economic efficiency" in the newspaper industry. Randall (1986) found among other things that transition from one editing and typesetting technology to another increased and also reduced the rate of typographical errors in newspapers, depending on the nature of the technology and how complicated the process of transition. Research in this area has been inconclusive and warrants further exploration.

Research evidence suggests the new technologies have altered traditional newsgathering processes and production formats, including the role of journalists. The concept of the newsroom where news is written and produced has changed. Reporters no longer need to rush to a central location (the newsroom) to type and submit their stories, nor do production editors need to be physically present to supervise production (Henningham, 1995). As Henningham (1995) noted in a study of Australian journalists' reactions to new technology, computers and communication software have transformed news reporting and production processes.

Technological innovations have also changed the methods available to journalists to find and present news – the primary task of a journalist. Historically journalists were heavily reliant on their contacts as news sources. Newsroom mentors would cite the adage "an empty newsroom is a good newsroom" to new cadets, advising them to meet their contacts face-to-face to get the good stories. Does that adage still hold true in the new electronic environment? Is an excellent journalist still as reliant on contacts or are computer skills now more important in achieving the journalist's goal of ensuring the public is well informed? Will this increase in available information mean an increase in the variety of news available in different media outlets, or will it lead to more of the same in each publication? The Internet also means greater access to national and international sources of news. How will this affect the news content mix of newspapers?

Not only is access to information changing, so too is the production process, particularly the changing role of sub-editors following the introduction of computer pagination technology. For example, sub-editors' ability to sub has now been overtaken by their ability to operate computer programs (Ewart, 1997). The new technologies enable editors and sub-editors to see the normal newspaper page on the screen; and permit sub-editors to check spellings and calculate story length electronically rather than manually or rely on their natural talents and skills (Dombkins, 1993). The drawback however is

that sub-editors also lose their word skills in the process (Dombkins, 1993, p. 36). These developments have profoundly affected the quality of newspapers (through, for example, typographical errors, layout and design flaws, and other technical blemishes) and the way news is gathered, produced, and reported.

Equally significant is the impact of the new technologies on journalists' ability to adhere to or ignore their professional code of ethics. Ethical guidance is a core part of journalism training and practice. Without it, there are no rules and no standards. Debate is growing within Australian society about the inability of print and broadcast journalists to respect the ethical principles of their profession. It is important to stress that unethical journalism did not start with the introduction of new technologies although new technologies may have contributed to public awareness of the phenomenon. For instance, there is the view that new technologies have increased the ability of journalists to plagiarise materials posted on the Web, to rely more on anonymous sources without proper verification, and to manipulate photos digitally. As Green (1997) demonstrated, one of the dilemmas of relying on Internet-based sources is how to verify the identity of the source given that electronic mail technology allows users to adopt pseudonyms.

While some studies have been conducted – mostly in the United States and some in Australia – on how specific aspects of the new technologies are impacting newsroom activities (examples include Auman, 1994; Ewart, 1997; Green, 1997; Henningham, 1995; Underwood, Giffard & Stamm, 1994; Randall, 1986; Russial, 1994, 1995 & 1998), this researcher is unaware of any study that has compared how journalists across cultures perceive the new technologies. In every society journalists act as watchdogs over powerful institutions essentially because their work is constantly under public judgment (Conley, 1997). Any technological innovation that affects the practice of journalism deserves research attention, not least to investigate how the practitioners perceive and react to the new technologies.

# Research questions

As a follow-up to Henningham (1995), this report presents the results of a study of Nigerian and Singaporean journalists' perceptions of new technologies. Most of the questions administered to journalists in Singapore and Nigeria were adapted from Henningham's 1995 study of Australian journalists. The main objective of this study is to investigate how newspaper journalists across cultures perceive the impact of the new technologies on their profession.

The major questions that underpinned this study sought to determine whether:

• New technologies improve the quality of newspapers through a reduction in typographical errors and a reduction in layout and design flaws.

- New technologies promote ethical or unethical journalism.
- Journalists perceive the new technologies positively or negatively in relation to how they affect their work. For example, do new technologies improve efficiency at work or not?
- There has been a change in local, national, and international news content mix
- Newspaper journalists in Singapore and Nigeria are optimistic or pessimistic about the impact of the new technologies on the future of journalism in their countries.

### Method

This is a pilot of a proposed larger study that seeks to investigate the impact of new technologies on journalism practice across three countries. However, this pilot study was conducted in Nigeria and Singapore in January and February 2000. The choice of the two countries was to provide a comparative context of journalists' perception of new technologies in South East Asia and Africa. South East Asia comprises of a number of developing countries (although Singapore is not classified as such) in the same way that Africa is made up of developing countries. Specifically, Singapore was selected because it is generally regarded as the melting pot of new technologies in South East Asia. Interest therefore was centred on how new technologies are transforming journalism practice in a leading technological country. Nigeria was chosen because of the general perception that Nigerian journalists enjoyed a higher level of press freedom in the African continent even during the most ruthless military regime.

In Nigeria, two English language newspapers were selected while in Singapore only one newspaper was selected. The newspapers studied in Nigeria were the leading independent English language newspaper – the *Guardian* (no links with the *Guardian* of London) – and the oldest surviving English language newspaper in the country – the *Daily Times*. In Singapore the flagship of the Singapore Press Holdings – the *Straits Times* – was studied. These newspapers were selected for a number of reasons. The *Daily Times* of Nigeria was for many years owned by the federal government and was largely perceived as the official defender of government policies. However, in recent times, subsequent Nigerian governments have divested the government's interest and shares from the *Daily Times* as the newspaper gradually moves toward full privatization. Although still partly government-owned, the *Daily Times* of Nigeria is now publicly listed in the Nigerian stock exchange.

The *Guardian*, however, is a privately owned English language newspaper which began publication in 1983 and has revolutionized Nigeria's newspaper industry with its independent views and distinctively breezy and literary reportorial style. The situation in Singapore is slightly different in that, at the time of the study, all the newspapers were subsidiaries of the government-owned Singapore Press Holdings (SPH). Against this background it was decided to select and study only the leading newspaper – the *Straits Times*.

A total of 29 senior editorial and management staff (mostly editors and section editors) were interviewed in the three newspapers, namely 13 in the *Guardian* and eight in the *Daily Times* (a total of 21 editorial staff in Nigeria) and eight in the *Straits Times* of Singapore. The senior editorial staff were studied because they constitute a significant chain in the news gathering, decision-making, and production processes. In the three newspapers, efforts were made to interview all the section editors but some could not be interviewed because they were not available during the period the interviews were conducted. To protect the identities of the journalists, I have assigned alphabets to their comments (see section on results) but the names of their news organisations have been retained.

The following section editors and editors were interviewed in the newspapers:

- The Guardian: Editor-in-chief/managing director, editor, news editor, features editor, editor of the Guardian on Sunday, acting editor of the Guardian on Saturday, assistant editor, business editor, assistant editor (arts and media), communications correspondent, sports editor, controller of computers, and head of the foreign affairs desk.
- The *Daily Times*: Managing director, editor, chief sub-editor, features editor, information technology editor, news editor, sports editor, and lifestyle editor.
- The *Straits Times*: Editor, executive editor, political editor, sports editor, deputy foreign editor, art and picture editor, deputy night editor, and editor (Life and Sunday Plus section).

Data were collected mainly through personal interviews with the section editors. The interviews were recorded on audio tape and later transcribed for analysis. Comstock & McCombs (1981, p. 148) have identified some of the merits of personal, face-to-face interviews. According to them, interviews enable a researcher to ask questions with some depth and the researcher can do so with greater sensitivity to facial expression, tone of voice, and gestures of uncertainty or confusion; the interviewer can alter the course of the interview in accord with responses, and can do so with the command of such

backtracking and switching as only comes with personal interchange.

Linstone (1989, p. 14) also emphasised the need for an interviewer to develop a good sense of listening and to be alert to nonverbal cues because "What is not said may be as important as what is said. Volunteered asides may be as significant as answers to questions." Despite the usefulness of personal interviews as a social research instrument, it is important to point out that some researchers have adopted other research instruments such as personal observations as their principal investigative tool. For example, Argyris (1974) used personal observation to good effect in his studies of US newsrooms. While Argyris spent months observing journalists at work, White & Vroman (1982) used the same technique in a study of group norms within various organisations. However, this comparative study of Singaporean and Nigerian journalists' perceptions of the new technologies did not adopt personal observations as a research instrument because of the short period of the research.

# Hypotheses

Three hypotheses were proposed in this study.

- H1: A majority of the section editors believe that new technologies have improved rather than harmed the quality of their newspapers.
- H2: A majority of the section editors believe that new technologies promote ethical rather than unethical journalism.
- H3: A majority of the section editors will be more optimistic about the impact of new technologies on the future of journalism.

### Results

The results reported here represent a comparative analysis of Nigerian and Singaporean journalists' perceptions of new technologies. Owing to the small sample size, the hypotheses were tested by using a simple non-parametric test such as the chi-square (see Tables 1-6). A separate comparative analysis of the results of the two Nigerian newspapers has been excluded because the results were similar.

There is an overwhelming view among Nigerian and Singaporean journalists that new technologies have improved rather than harmed the quality of their newspapers. More than 8 out of 10 journalists believed that new technologies have improved the quality of their newspapers (see Table 1). This represents 86% of the respondents (25 of 29 journalists). None of the section editors believed that new technologies have harmed the quality of their newspapers. However only 14% (4 of 29 respondents) could not say whether new technologies have improved or harmed newspaper quality. This finding could

be interpreted in two ways. The overwhelming positive attitude to new technologies could be attributed to journalists' professional pride in their individual organisations or it could be due to journalists' belief in the ability of the new technologies to improve newspaper quality. Hypothesis 1, which states that a majority of editors believe that new technologies have improved rather than harmed the quality of their newspapers, is significant at .001 level.

IMPACT	NIGERIA	SINGAPORE	TOTAL* f(%)
Improved quality	17 (81)	8 (100)	25 (86)
Harmed quality	0 (0)	0 (0)	0 (0)
Don't know	4 (19)	0 (0)	4 (14)
TOTAL	21 (72)	8 (28)	29 (100)

Table 1: Impact of new technologies on quality of newspapers

A similar pattern emerged when the results were compared on a country-by-country basis although Singaporean journalists were more decisive in their beliefs. For example, in Nigeria, more than 8 out of 10 journalists (81% or 17 of the 21 respondents) said new technologies have improved the quality of their newspapers while all the Singaporean respondents stated that new technologies have improved the quality of their newspaper. But it is important to note that 19% of Nigerian journalists (4 of 21 respondents) could not say whether new technologies have improved or harmed the quality of their newspapers. This finding is not surprising. Singapore is a leading technological country in South East Asia and the level of accessibility or familiarity with new technologies could have been reflected in the responses given by the journalists.

The reasons for scepticism among Nigerian journalists are twofold: general lack of exposure to, and lack of training on, the new technologies. Based on the comments obtained from the Nigerian journalists, it is obvious that a majority of those journalists lacked access to the new technologies. Also, the section editors in the two Nigerian newspapers were critical of the absence of training programs which would have facilitated familiarity with the new technologies. In the two Nigerian newspapers (the *Guardian* and the *Daily Times*) personal computers were conspicuous by their absence in the newsrooms. In the *Guardian*, for example, only two of the staff interviewed – the editor-inchief and the assistant editor (arts and media) – said they had their own personal (laptop) computers. But in the *Daily Times* none of the respondents had

personal computers of their own or on their desks. It is obvious from this finding that the diffusion of new technologies in Nigerian and Singaporean newsrooms have not occurred at an equal pace. In the *Straits Times'* newsroom, virtually every desk had a personal computer. Each of the section editors also had a personal computer on his/her desk. This compares unfavourably with the situation in Nigerian newsrooms. With regard to Australian newsrooms, Henningham (1995) found a similar disparity in technology diffusion in his study of Australian journalists' reactions to new technology. Henningham (1995, p. 229) reported, for example, that:

In the case of print media, the first generation of phototypesetting software had been universally established in newsrooms by the mid-1980s, but is now technologically obsolete. More "state of the art" technology has been introduced recently to broadcast newsrooms, whose managers in general saw little benefit in early word processing facilities, but have been quick to see the potential in computerised audio editing.

It is important to keep in mind that Henningham's report was published in 1995 and the situation in Australian newsrooms has changed significantly since that time.

The sentiments expressed by Nigerian journalists were obvious in their comments. Some of the comments were:

The reporters and the people who have to work along the production line have to be trained, properly trained to be able to use this technology otherwise it's going to be slowing us down. Like many of them who are into colour printing now, we make a joke that they are doing water colour or oil colour because some of the colours are just very bad and because the man who is handling the colour machine cannot just get it right. (AJ, *Guardian*)

... the question is how many of these (new technologies) are available to the Nigerian journalists. Not many newspaper houses actually have the ability to put the equipment into use. The reasons are left for the media managers and media houses to sort out ... they make the job easier but there is the issue of whether we are able to use the equipment. If we are able to use them, apparently they will improve the quality of the job (AK, *Daily Times*).

... I am operating in an environment where the technologies are just coming in and people are not very used to them. And so because some of us have acquired knowledge about the use of these technologies, imparting them to others becomes a problem. (AG, *Daily Times*)

The journalists were also asked whether the new technologies saved time

or took up more of their time. A similar question was posed by Henningham (1995) in his study of Australian journalists' reactions to new technology. The responses followed the pattern of the earlier question about impact of new technologies on quality of newspapers. Exactly 8 out of 10 journalists in Nigeria and Singapore (80% or 23 of 29 respondents) said the new technologies helped them save time at work while 10% (3 of 29 respondents) disagreed. Another 10% (3 of 29 respondents) could not say whether new technologies saved time or took up more of their time (see Table 2).

IMPACT	NIGERIA	SINGAPORE	TOTAL* f(%)
Saved time	20 (95)	3 (37.5)	23 (80)
Took more time	1 (5)	2 (25)	3 (10)
Don't know	0 (0)	3 (37.5)	3 (10)
TOTAL	21 (72)	8 (28)	29 (100)

Table 2: Impact of new technologies on time spent at work

However, Singaporean journalists were more divided in their opinions than Nigerian journalists. For instance, 95% (20 of 21 respondents) of Nigerian journalists said the new technologies saved time and only 5% (1 of 21 respondents) said new technologies took more time. Among Singaporean journalists, 37.5% (3 of 8 respondents) said new technologies saved time. A similar number of the journalists could not say whether new technologies saved or took up more of their time while 25% of the journalists (2 of 8 respondents) were convinced that the new technologies took more of their time. This result is somewhat surprising in view of Singaporean journalists' responses on the impact of new technologies on newspaper quality. Although 100% of Singaporean journalists had stated that new technologies improved the quality of their newspaper, only 37.5% felt the new technologies saved time at work. This suggests that, although new technologies may be improving the quality of newspapers, they make the job more complicated for journalists.

New technologies are usually associated with improved efficiency and with helping people work better, faster, and with greater ease. How new technologies impact the time journalists spend at work is indicative of the extent to which journalists believe these technological innovations aid efficiency. While Nigerian journalists in general tended to support the view that new technologies saved time, this could not be said of Singaporean journalists.

Singaporean journalists who felt new technologies took up more time stated:

It is time consuming because of the physical aspect of having to search and download and when you download and convert into your newspaper publication, it's slightly more time consuming compared to the wire services we subscribe to... By transferring from e-mail or whatever, it's a few more steps, it's slightly more time consuming searching for some of the sites. (DF, *Straits Times*)

The demands of the job have taken up more of the time. It saves time in areas like transcription of commissioned stories. Now readers have direct access to you and whether you respond to them individually or not you still have to at least look at their e-mail. And the demands they make on you are a lot more. (LS, *Straits Times*)

However, one of the senior editors in Nigeria had no doubt that new technologies took more time. His view:

Well, like everything else that is new, because it is a new technology, you are bound to run into snags here and there. It takes a bit of the time to do some things, particularly when we started out with it, we found that fewer and fewer people understood the process we're operating and so that sort of slowed down the job. (EE, *Guardian*)

This view epitomises the slow pace of new technology diffusion in Nigeria. The comment also supports the views of some Nigerian journalists (see Table 1) about lack of access to new technologies as well as lack of basic knowledge of how to use the technologies.

Some Singaporean journalists were uncertain about whether new technologies saved or took up more time. Their comments follow:

It has both taken more and less of my time in a sense that because of the whole new world that is open to me, I'm curious, I'll go into it and I spend more time looking for more stories. The information overload has become even worse. So unless I can be very disciplined, I find that I spend a lot of my time reading more things which is good and bad because if I spend more time reading things I accumulate more knowledge but at the expense of doing other things as well. (EE, *Straits Times*)

Em, neither. We've all been sucked into it (laughs). We're all working all the time. What are you talking? Does it take up more of the time? I have work here all the time. I have phone here and it goes off any time somebody wants to reach me. When I go home I have a terminal at home that's hooked up to the office, so that when I wake up I can go

and do things straight away. That's been a few years since we put in home terminals in editors' homes and we are connected to the office. (NE, *Straits Times*)

One particular comment stood out among the Singaporean journalists who believed that new technologies saved time at work.

It definitely saves us time especially when you're talking about late breaking news. Just as an example, during the millennium party when you have late breaking news, you spend time processing six rolls of film and trying to choose the best negative for development. That will take a lot of time, but with digital camera, you don't go through all those processes. (AC, Straits Times)

In terms of how the new technologies have affected the ease of task performance, more than 7 out of 10 respondents (72% or 21 of 29 respondents) in Nigeria and Singapore stated that new technologies made their jobs easier. Only 7% (2 out of 29 respondents) said new technologies made their work more complicated (see Table 3). However, 21% (6 out of 29 respondents) could not say whether new technologies made their jobs easier or more complicated. This continues the pattern of positive feelings toward the new technologies (refer to Table 1 above).

IMPACT	NIGERIA	SINGAPORE	TOTAL* f(%)
Easier	17 (81)	4 (50)	21 (72)
More complicated	0 (0)	2 (25)	2 (7)
Don't know	4 (19)	2 (25)	6 (21)
TOTAL	21 (72)	8 (28)	29 (100)
* Chi Square = 20.68; df	` '	, ,	,

Table 3: Impact of new technologies on ease of job performance

On a country-by-country basis, 81% (17 of 21 respondents) of the journalists in Nigeria said new technologies made their tasks easier as against 50% of Singaporean journalists (4 out of 8) who held a similar view. However, while none of the journalists interviewed in Nigeria said that new technologies complicated their work, 25% (one quarter) of Singaporean journalists said the new technologies complicated their job. In Nigeria, 19% (4 of 21 respondents) could not say whether new technologies have made their jobs easier or more complicated while the figure for Singapore was 25% (2 of 8 respondents).

These percentages do not convey as much of the inner thoughts of the journalists as their comments revealed. For example, there were divergent views

among Nigerian and Singaporean journalists in regard to how the new technologies complicated their professional routines. Some of the issues that emerged included lack of access to the technologies (in Nigeria), the difficulty of verifying Internet sources and the rigour of searching, backgrounding, updating, and following up breaking news stories on the web. Here are some of the comments:

If you don't know how to use the new technology, the process becomes complicated. That can be a problem because you may have to rely on some other person who knows how to use the technology and that can make the job somehow stressful and difficult for you. That means it will also require training. If you don't know anything about the technology and you are not trained for it, the job becomes complicated for you because you'd be left out and in that process complications may arise, in fact, they arise, for those who don't know how to use the technology. (JE, *Guardian*)

It's supposed to make it easier. I think it does make it easier except that most of us are yet to be really attuned to use these new technologies that are supposed to be available to us. Take the average editor in Nigeria today. He doesn't have a computer before him. At the end of the day, instead of accessing the stories right on the desk, he has to go to the computer room to find out what's going on. So that takes some time. (FO, Guardian)

I will think the new technologies impact on us in terms of complicating our lives. Now we have to be more wary, for instance, in checking the sources of our stories... But what can be difficult for a journalist is how you check your sources in the Internet. A whole explosion of information, they call it information overload, information overload simply because the traditional methods of checking a story now has to be applied more stringently for a journalist. So, that requires a lot on the part of journalists as well as on the part of the editor. So that has made life a little more complicated I would say. (ES, *Straits Times*)

I think it's more complicated to a large or some extent because it means that, having been committed to using the Net as a resource, you have to therefore spend an effort scouring a wider range and it means that you would have to decide how you're going to amalgamate the information you get from five different sources as opposed to when you have only the agencies to rely on... It's more complicated also because, having committed yourself to it, you have to make sure that you stay the course and don't give up on it because your readers, after two months, start to

expect that you'd provide them more current or more detail. (FE, Straits Times)

Nigerian journalists who said that new technologies have made their jobs easier outlined reasons such as flexibility and independence offered by computers, as well as availability of credible news sources on the web.

It has made my job easier because I now have authority over the choice of words I use, how I use them and to be able to produce right on time. So that has made it much easier. (AS, *Guardian*)

... even though some of us can't use the computer personally we have access to a number of things that are done in the computer. For example, we have the Internet news material, you know, from across the world. They bring out so much material for you. (FE, Guardian)

... the new technology is, as expected, very useful in simplifying our operations at least in some areas. Simplified operations in the sense that some of those things that you used to do manually before, some of those things you needed a large number of human resource to sort out you no longer need that. It sort of simplified it. It sort of contracted our operations in various ways. (EE, *Guardian*)

Well, they make the job easier but there is the issue of whether we are able to use the equipment. If we are able to use them, apparently they will improve the quality of the job. (AK, *Daily Times*)

Level of job satisfaction was one of the variables examined in this study. The question was: "In relation to the new technologies, to what extent are you satisfied with your job?" The journalists were presented with four options but were asked to select only one. The response options were: "Very satisfied," "Fairly satisfied," "Somewhat dissatisfied," and "Very dissatisfied." The results showed there were more journalists in Nigeria and Singapore who were "Fairly satisfied" with their jobs than those who were "Very satisfied." For example, more than 6 in 10 journalists (66% or 19 of 29 respondents) said they were fairly satisfied with their jobs while only a little over 1 in 20 journalists (21% or 6 of 29 respondents) said they were "Very satisfied." While 10% (3 of 29 respondents) said they were "Somewhat dissatisfied" with their jobs only one journalist (3%) said he was "Very dissatisfied" with his job (see Table 4).

IMPACT	NIGERIA	SINGAPORE	TOTAL* f(%)
Very satisfied	6 (28)	0 (0)	6 (21)
Fairly satisfied	13 (62)	6 (75)	19 (66)
Somewhat dissatisfied Very dissatisfied	1 (5) 1(5)	2 (25) 0 (0)	3 (10) 1 (3)
TOTAL	21 (72)	8 (28)	29 (100)
* Chi Square = 27.12; df			

Table 4: Impact of new technologies on job satisfaction

A breakdown of the figures shows some similarities in the levels of job satisfaction among Nigerian journalists and their Singaporean counterparts. For instance, 62% of Nigerian journalists (13 of 21 respondents) said they were "Fairly satisfied" with their jobs. A slightly higher percentage of Singaporean journalists (75% or 6 of 8 respondents) echoed that view. However, while 28% of Nigerian journalists (6 of 21 respondents) stated they were "Very satisfied" with their jobs, none of the Singaporean journalists expressed such a view. In terms of dissatisfaction with their jobs, only 5% of Nigerian journalists (1 out of 21 respondents) said he was "Somewhat dissatisfied" with his job while a slightly higher number of Singaporean journalists (25% or 2 of 8 respondents) expressed a similar view. However, while only 1 Nigerian journalist stated that he was "Very dissatisfied" with his job, no Singaporean journalist expressed such a view.

It is important to mention that all section editors – apart from the three editors - responded to the question with some degree of uneasiness despite assurances that their responses would be treated in confidence. It is possible that this uneasiness may have affected the nature and quality of responses given by the section editors. This feeling of uneasiness was more noticeable among Nigerian journalists than one was able to observe in Singaporean journalists. Perhaps the journalists were fearful of losing their jobs if they expressed negative sentiments and these got relayed to their bosses. In view of the relative lack of access to, and familiarity with, the new technologies in Nigerian newsrooms, it was expected that Nigerian journalists would react in the extreme negative to the question. Surprisingly the findings did not uphold this expectation. In Singapore and Nigeria a majority of the journalists avoided the two extremes ("Very satisfied" and "Very dissatisfied") and opted for the safe and less risky middle course of "Fairly satisfied." It is necessary to keep in mind that the question sought to determine how satisfied the journalists were with their jobs in regard to the new technologies. The interesting thing about the

responses is that one of the senior Singaporean journalists stated categorically that he was "Somewhat dissatisfied" not so much with his job but with the level of technological presence in the newsroom. In the light of Singapore's technological advancement, this view must come as a surprise.

I'm not a usually satisfied person. We have a lot of technologies at our disposal but I'm not happy so I hope that I won't be satisfied because to be satisfied is to be complacent... I am trying to push the idea of having all our reporters out in the field. I'd like them to be equipped with laptops, which can transmit without main lines, transmit wirelessly... (ZL, Straits Times)

From Nigerian journalists, however emerged echoes of the low level of technological development in the country and the lack of familiarity with the technologies.

I will say "Fairly satisfied." We have not been fully exposed as individuals even as an organisation to these new technologies that are available. And it might be a function of several factors. One: underdevelopment, conservatism, and all kinds of things. Then we have not really tapped as much as we ought to into these new technologies to get maximum or optimal results. (DE, *Guardian*)

Let me say that I'm fairly satisfied and let me explain because although I understand a bit about that process a lot more, I've discovered that quite a number of our people haven't fully understood it, even those who have been operating this thing for ages still do not understand what the system is all about. And because they do not understand this, you can't be fully satisfied with what comes out of it. Sometimes the photographs are not well prepared, sometimes the text is lopsidedly done, sometimes the negatives get in the process of filming, you just discover that a lot more mistakes are made and you then have to spend quite a lot of time trying to attend to sort out this problem. So in that regard, yes, I'm not entirely satisfied with what we're getting. (PE, Guardian)

I am fairly satisfied, fairly satisfied and that is conditioned upon the fact that the introduction of the technology in Nigeria is still not as advanced as it is in so many other places. But maybe with time when we really get to the level where we can take full advantage of the new development maybe one would be a lot more satisfied than one is now. (AD, Guardian)

Ethical conduct has always been a subject of debate between media audiences and journalists and between journalism academics and senior editorial staff. Consequently, this study sought to examine Nigerian and Singaporean journalists' views on how the new technologies affect ethical journalism. The

journalists were asked: "Do you think the new technologies promote ethical or unethical journalism?" Singaporean and Nigerian journalists did not believe that new technologies promote ethical journalism. A majority were either ambivalent in their responses or held the view that new technologies promoted unethical journalism. For example, only 28% (8 of 29 respondents) believed new technologies promoted ethical journalism (see Table 5). While a slightly higher percentage (34% or 10 of 29 respondents) felt new technologies promoted unethical journalism, only 38% (11 of 29 respondents) were uncertain whether new technologies promoted ethical or unethical journalism. The result is surprising. Hypothesis 2, which states that a majority of section editors believe that new technologies promote ethical journalism, is not significant at .001 level and therefore the hypothesis is not supported. This finding has implications for journalism practice. It suggests that, as much as the new technologies may be viewed as useful tools for journalism practice now and in the future, there are inherent drawbacks in regard to how the technologies are used for professional practice. The concern expressed by journalism practitioners in Nigeria and Singapore to the effect that new technologies promote unethical practice undermines the credibility of journalists and journalism as a profession.

IMPACT	NIGERIA	SINGAPORE	TOTAL* f(%)
Ethical journalism	6 (29)	2 (25)	8 (28)
Unethical journalism	8 (38)	2 (25)	10 (34)
Don't know	7 (33)	4 (50)	11 (38)
TOTAL	21 (72)	8 (28)	29 (100)

Table 5: Impact of new technologies on journalism ethics

A country-by-country analysis shows that a similar trend persists. In Nigeria, 29% of the section editors (6 of 21 respondents) believed that new technologies promoted ethical journalism while a greater percentage, that is, 38% (8 of 21 respondents), held the view that new technologies promoted unethical journalism. However, 33% of the respondents (7 of 21 respondents) could not say whether new technologies promoted ethical or unethical journalism. In Singapore, 50% of the respondents (4 of 8 journalists) were not sure whether new technologies promoted ethical or unethical journalism while the rest were evenly split. That is, 25% of the journalists (2 of 8 respondents) believed that new technologies promoted unethical journalism and another

25% stated that new technologies promoted ethical journalism.

Issues highlighted by Nigerian journalists in regard to how new technologies promote unethical journalism include professional complacency owing to over-reliance on new technologies, plagiarism, manipulation of photographs by digital means, and anonymity of Internet sources. According to the respondents:

To a great extent, they will promote unethical journalism. For example, there are areas that, even now, instead of a reporter going out to cross-check the interview or whatever report he may have picked up somewhere, he just sits back and re-writes the story into two paragraphs and puts his name there. (NO, *The Guardian*)

I must confess that technology has made possible a wide range of unethical things in journalism. An example is the downloading of material from the Internet and converting such to material that you use without the benefit of attribution to those who own the material... It now makes it impossible for an editor to now verify how hard working, how ethical and how committed that his reporter is to whatever story he is actually pursuing. (AA, *Guardian*)

In a way one can say they promote unethical journalism because some people lift things from the Internet. Apart from that a lot of people are being exposed to the negative aspects of Western culture. You've heard about pornography on the Internet. (AD, *Daily Times*)

I will say they promote unethical journalism in the sense that it is quite easy with the technologies to plagiarise, to pass on other people's job as if they are yours. Some obscene materials that hitherto could not be accessed could now be easily reached and circulated. (SE, *Daily Times*)

To a large extent it's promoting unethical journalism in the sense that, for instance, I've seen pictures, they graft the head of somebody onto the picture of another person and some local papers here have even done it to my shock. (AK, *Guardian*)

I think the danger is always that there's obviously going to be a lot more opportunities for people to send out any kind of information, the veracity of which you cannot ascertain immediately because it could be anonymous in terms of source of information. So that's the danger and if we don't assess it properly we could end up with egg on our face by picking up rumour and just running with it. Obviously the potential has increased because if you subscribe to any number of news groups and

get e-mail which we do from many sources, it's a question of being able to sit down and assess properly what is what — what will help you and what will not help you; what is rumour, what is fact. That adds slightly to the difficulty of using the new technology and makes the world more complicated. (DF, *Straits Times*)

... we also know that the Internet has become prone to fraud. It has no boundary, it's anonymous, anybody can hack into your web site and post anything on your web site. Somebody can even send a fraudulent e-mail because the technology allows using a fake name, anonymous name and all that. (AS, *Guardian*)

Despite the concerns expressed by journalists about the ability of the new technologies to promote unethical journalism, there were some journalists who stated that new technologies promote ethical journalism. One of the Nigerian journalists said, ironically, that unethical conduct was not a problem because many of the journalists in the country lacked access to the new technologies.

Because of our relative ignorance about, I would say, these equipment ... it can't be manipulated to the extent that it will create ethical problems for us. (FE, *Guardian*)

Nevertheless a Singaporean journalist argued that easy access to the new technologies serves as a deterrent against unethical journalism:

I think personally the weight of the evidence is that it will promote more ethical journalism because it's now so open, so transparent, it's very hard to hide. If you do something unethical it would be found out very quickly. If you digitally alter a picture, somebody will know very fast. It's also difficult for newsmakers to hide information. (TL, *Straits Times*)

Nigerian and Singaporean journalists were asked whether they were optimistic or pessimistic about the impact of new technologies on the future of journalism practice in their countries. A test of outlook is important because more pessimism, for example, would imply low morale and less commitment to professional values. Low morale would also undermine the credibility of the profession. Exactly 90% of the journalists (26 of 29 respondents) in the 2 countries were optimistic about the impact of new technologies on the future of journalism (see Table 6). Only 1 journalist (3%) expressed pessimism about the impact of new technologies on the future of the profession. Incidentally that lone voice was Nigerian. However, 7% of the journalists (2 of 29 respondents) were neither optimistic nor pessimistic about the future. These results mean that Hypothesis 3, which states that a majority of the section editors will be more optimistic about the impact of new technologies on the future of journalism, is significant at .001 level. The results in Table 6 support Hypothesis

3 and also show an overwhelming optimism among Nigerian and Singaporean journalists about the impact of new technologies on the future of their profession.

IMPACT	NIGERIA	SINGAPORE	TOTAL* f(%)
Optimistic	20 (95)	6 (75)	26 (90)
Pessimistic	1 (5)	0 (0)	1 (3)
Indifferent	0 (0)	2 (25)	2 (7)
TOTAL	21 (72)	8 (28)	29 (100)

Table 6: Impact of new technologies on future of journalism practice

In general, on a two country basis, a high percentage of journalists were optimistic about the impact of new technologies on the future of their profession. In Nigeria, 95% of the respondents (20 of 21 respondents) expressed optimism about the impact of new technologies on the future of their profession while 75% of Singaporean journalists (6 of 8 respondents) expressed a similar sentiment. As reported in the preceding paragraph, only 1 Nigerian journalist (5%) was pessimistic about the future while there was no such opinion in Singapore. However, 25% of Singaporean journalists (2 of the 8 respondents) were indifferent to the question about the impact of new technologies on the future of journalism. They believed new technologies posed a greater threat to the future of newspapers than anything previously:

... the threat from the Internet, the online services, is coming on so strong that we do not really know what the young people of today are more interested in. There are already signs that a lot of them do not read newspapers and that's a worrying thing for us, people working in print journalism. (DE, *Straits Times*)

I am not optimistic about the newspaper surviving into say the next 50 years but the news channels will always be there. Whether or not in whatever form, we're not sure yet. I don't see the newspaper surviving in 50 years time. (LS, *Straits Times*)

As stated earlier, only one Nigerian journalist expressed pessimism about the impact of new technologies on the future of journalism practice. The respondent said new technologies would promote more complacency among journalists and that would be detrimental to the future of journalism.

I will say pessimistic. In future you'd find that when these journalists have computers, they would become lazy and prefer to sit back in their

offices and download stories instead of going out to source or investigate stories. (NN, *Guardian*)

## Summary

New technologies are transforming journalism practice across the globe but in Nigerian newspapers, the pace of technology diffusion is frustrating and slow. Lack of training opportunities for senior editors and lack of access to the new technologies constitute major obstacles to technology diffusion in Nigerian newspaper organisations. There is a general optimism among Nigerian and Singaporean journalists about the impact of new technologies on the future of their profession, although Nigerian journalists were more optimistic than their Singaporean counterparts. An overwhelming majority of Nigerian and Singaporean journalists believe that new technologies have improved rather than harmed newspaper quality. However, when the journalists were asked whether new technologies promoted ethical or unethical journalism, opinions were divided. Only 28% of the journalists stated that new technologies promoted ethical journalism. The finding casts doubts on the usefulness of the new technologies as the essential tools for future journalism practice. This analysis of Nigerian and Singaporean journalists' perceptions of new technologies suggests that new technologies are seen, on one hand, as useful tools for the advancement of journalism practice but on the other hand they are seen as facilitating unethical journalism practice.

The nature of the relationship between journalists and new technologies deserves further investigation. Do new technologies cause unethical journalism or do journalists use new technologies for unethical conduct? These are crucial questions for investigation.

#### References

Argyris, C. (1974). Behind the front page: Organizational self-renewal in a metropolitan newspaper. San Francisco: Jossey-Bass Publishers.

Auman, A. (1994, Spring). Design desks: Why are more and more newspapers adopting them? *Newspaper Research Journal*, 15 (2), 128–142.

Comstock, G. & McCombs, M.E. (1981). Survey research. In Stempel III, G.H. & B. Westley (Eds.). *Research methods in mass communication*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Conley, D. (1997). *The Daily Miracle: An introduction to journalism*. Melbourne: Oxford University Press.

Dombkins, M. (1993, January-June). The impact of technology and environmental factors on newspaper organisational design. *Australian Journalism* 

Review, 15 (1), 29-51.

Ewart, J. (1997, June). The challenges of pagination for sub-editors on a regional daily newspaper. *Australian Journalism Review*, 19 (1), 49–56.

Green, K. (1997, December). Online and undercover: Discovering the boundaries. *Australian Journalism Review*, 19 (2), 24–30.

Henningham, J.P. (1995). Australian journalists' reactions to new technology. *Prometheus*, 13 (2), 225–238.

Linstone, H. A. (1989, June). *Multiple perspectives on technology diffusion*. Paper presented at the International Conference on Diffusion of Technologies and Social Behaviour: Theories, case studies and policy applications, Luxembourg, Austria.

Morton, J. (1993, Spring). Growth of electronic media has made newspapers better. *Newspaper Research Journal*, 14 (2), 18–22.

Randall, S. D. (1986, Winter). How editing and typesetting technology affects typographical error rate. *Journalism Quarterly*, 63 (4), 763–770.

Russial, J. T. (1994, Winter). Pagination and the newsroom: A question of time, *Newspaper Research Journal*, 15 (1), 91–101.

Russial, J. T. (1995, Fall). Pagination and digital imaging: A contrarian approach. *Newspaper Research Journal*, *16* (4), 42–56.

Russial, J. (1998, Spring). Goodbye copy desks, hello trouble? *Newspaper Research Journal*, 19 (2), 2–17.

Underwood, D., Giffard, C. A. & Stamm, K. (1994, Spring). Computers and editing: Pagination's impact on the newsroom. *Newspaper Research Journal*, 15 (2), 116–127.

White, D. D. & Vroman, H. W. (1982). *Action in Organizations* (2nd ed.). Boston: Allyn and Bacon Ltd.

#### Author

Levi Obijiofor is a lecturer in the School of Journalism and Communication at the University of Queensland. This pilot study was funded by the Faculty of Social and Behavioural Sciences of the University of Queensland.