Mobile journalism (mojo) and journalism education

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Abstract

Mobile journalism, often abbreviated as mojo, offers opportunities for media companies around the world to get multimedia content onto the web almost immediately. Mojos stream video live to the web, write text stories with a portable keyboard, take still images, and record and stream audio interviews – using only a mobile phone. This paper describes the origins of the concept of the mojo and its spread around the world. It considers the forces driving the adoption of this innovative approach to newsgathering, and concludes by considering the implications for journalism and journalism education.

Introduction

Journalism was a leisurely affair until the arrival of the telegraph. Before the technology Standage dubbed the "Victorian Internet" became widely available from about the 1880s, editors published foreign news only after ships arrived (1998: 10). Reporters rowed to newly arrived vessels to secure the latest news, even though that news was in newspapers that were months old. Domestic news travelled only as fast as a horse could gallop, and most news was necessarily local. The pigeons Baron Reuter introduced in the 1850s accelerated the speed of newsgathering, but pigeons had limited range and scope. The arrival of the telegraph was a watershed for journalism because it was the first global technology that accelerated the reporting process.

War has always focused journalists' attention on the speed and reliability of technology (Quinn in Berenger 2006: 39). Schwarzlose maintained that the telegraph turned American journalism "into a news-hungry industry" prior to and during the American Civil War of 1861-65: "A craving for the freshest news grew hand-in-hand with the new technologies of steam and electricity" (1974: 595). Livingston suggested the telegraph was the "most significant international communication medium" around the world between the mid 1840s and the 1920s. Indeed, he argued this period was "the age of the telegraph". In a relatively short time the telegraph's wires encompassed the world, boosted by British capital, labour and enterprise. Lines of cable reached out from the world's great commercial and diplomatic centres, "fostering the growth of nationalism

within countries, along with faster business and media transactions" (1996: 6). Kieve maintained the telegraph's "glory days" were between 1850 and 1914 (1973: 268).

By the end of the nineteenth century the commercial world had realised the telegraph's significance, governments became aware of its strategic implications, and the press was "awakening to its potential" (Kieve 1973: 44-45). On 3 January 1845, a news story made the telegraph famous in England. John Tawell murdered his mistress in the town of Slough, about 24 kilometres west of London. Slough was one of the stations on the Great Western Railway, and the telegraph had been installed alongside the railway lines. Tawell fled by train to the anonymity of London, dressed as a Quaker. But police arrested him at London's Paddington station. Kieve said that the transmission of Tawell's description by telegraph to Paddington "was largely responsible for his rapid arrest". Publicity around the arrest heightened public awareness of the new technology and the telegraph became famous as "the cords that hung John Tawell" (1973: 39).

This news event was notable because information travelled slowly in the eighteenth and nineteenth centuries compared with what we experience today. America's Declaration of Independence on 4 July 1776, for example, was not reported in England until August 21. People in England only became aware of Nelson's victory at Trafalgar – on 21 October 1805 – on November 2 (Kieve 1973: 39). Compare the slowness of these events with the speed at which news and information traverse the world in seconds now. Details of the Haiti earthquake or the Moscow subway bombings in 2010 were available via Twitter and text message (SMS) seconds after they happened.

Arrival of the mojo

The mobile journalist or mojo heralds another watershed moment for journalism as we move into the second decade of the twenty-first century. History shows that journalists adopt new technologies for newsgathering if those tools are easy to use, if they enhance the storytelling process, and if they accelerate the gathering of news. The reverse also applies: Reporters will reject newsgathering technologies if those tools are too complicated to use. Journalists are unwilling to waste time with complex technologies. The constant tick of the clock makes editorial staff aware of deadlines, and those deadlines have increased in number with the advent of the 24/7 newsroom.

All of the technologies that journalism has embraced since the telegraph have reflected the twin desires for speed and increased efficiencies (Kieve 1973; Schwarzlose 1974; Stephens 1989; Livingston 1996). The history of journalists' use of newsgathering technologies illustrates this point: tools like the typewriter, long-distance telephony, the satellite phone and portable electronic newsgathering kits used in Iraq all represent examples of this evolution.

This paper rejects technological determinist arguments, and maintains that people choose tools that enhance their life; that is, human beings adopt useful tools and reject those that are irrelevant or complicated. In the years since the telegraph accelerated the newsgathering process, reporters have increasingly sought ways to gather news and get it

back to their editors as quickly as possible. That development has been more marked in the recent decade with the spread of converged newsrooms and the 24/7 news cycle. The arrival in late 2007 of the mojo or mobile journalist – the reporter who uses only a mobile phone to gather and transmit news – is a significant development in the evolution of reporting tools. A mojo streams video live to the web, records audio interviews with the phone's built-in recorder, takes still images, and writes text messages with fold-away keyboards before sending content wirelessly to the office.

The term mojo has many meanings around the world. In the world of popular culture, if your mojo is working you have sex appeal. The word hints of power and magic. In the context of reportage, mobile journalism is producing powerful changes to the way online sites report. The mobile phone offers journalism unique newsgathering potential: Online news sites concentrate on breaking news because research shows this form of news builds audiences. Online revenues are based almost entirely on advertising and the "clickstream" (the number of people who visit the site) so breaking news, especially multimedia forms such as video, become vital because they offer the best ways to build audiences, which can be sold to advertisers (van Niekerk 2008).

The origins of the word mojo are unclear, but it appears to have come from moco'o, an African word meaning a person who works magic. That term is from the Fula or Fulfulde language, a member of the Fulani branch of the Niger-Congo language family. It entered the English language during the slavery era in the United States (Wikipedia). In the context of journalism, the word "mojo" appears to have been coined by staff at Gannett newspapers in the United States in 2005. It was the codename for a project at *The News-Press* at Fort Myers in Florida, where reporters gathered and distributed news in new ways. The aim was also to obtain content from the audience as well as the paper's reporters. Kate Marymont, executive editor and vice president of news for *The News-Press*, said the mojo experiment was designed to create neighbourhood-focused areas within the newspaper's website (www.news-press.com) to deliver breaking news throughout the day. She noted: "We anticipate there will not be a distinction between mojos and other reporters in the near future" (Marymont 2006).

The number of mojos worldwide is relatively small, according to *Ifra Magazine*, the authoritative source for the newspaper business published in Germany and distributed in six languages around the world for the World Association of Newspaper (Ifra and WAN merged in 2009). Senior editor Brian Veseling noted that true mobile journalism efforts from newspaper publishers remained "rare" but were growing rapidly. "Only a few publishers appear to be aggressively pursuing large-scale mobile reporting projects. Among these, two of the most prominent are Australia's Fairfax Media and the Gannett group in the United States" (Veseling 2008: 23 and 2010). Newspaper publishers, reluctant to invest during the global financial crisis, have been slow to develop mojo projects. But other media companies, especially blog sites, have adopted this innovation. Research the author has conducted around the world shows the number of mojos is rising, directly influenced by the availability of 3G and wifi networks because these are needed to deliver content to the newsroom from the field.

The number of user-friendly "smartphones" such as the iPhone and the Blackberry, plus improvements in mobile telephone networks, has accelerated the spread of mojos since mid to late 2009. "Smartphone" is the general term for mobile phones with high-end processing chips. People use them to access the Internet, send and receive email, and conduct a range of business-related tasks. People generally choose a smartphone because they want to access the Internet via their mobile phone. In 2009, despite the global financial crisis, smartphone manufacturers sold 174 million units globally, an increase of 15 per cent on the 151 million sold in 2008. In the first quarter of 2010 the global smartphone market grew by more than 50 per cent compared with the same period in 2009, research company IDC reported in May 2010. Smartphone vendors shipped 54.7 million units in that quarter. Ramon Llamas, a senior research analyst at IDC, said 2010 would be "another year of large-scale consumer adoption of converged mobile devices" (IDC 2010). Apple sold more than one million iPads in the first month the device was offered in April 2010. For one in three mobile phone users in Japan, their handset has replaced the personal computer as the way they go online (Covey 2008: 4). Even during the 2008-2009 global financial crisis, ITU Secretary-General Dr Hamadoun Toure said he had seen no drop in demand for communications services. "I am confident that we will continue to see a rapid uptake in mobile cellular services in particular in 2010, with many more people using their phones to access the Internet," he told the Mobile World Congress in Barcelona in February 2010.

Another significant driver has been telecommunications companies' provision of unlimited data packages. With these packages, consumers pay a fixed amount each month for phone calls, text messages and data. Video and audio from a mojo are transmitted as data, not voice. It is vital to have a data plan when streaming video to the web because the process can involve huge amounts of data. A one-minute video shot on a mobile phone consumes at least 4Mb of data when streamed. Early in 2010 the Swedish mobile phone manufacturer Ericsson calculated that data traffic on mobile phones exceeded voice traffic for the first time in December 2009. Ericsson said data traffic globally grew 280 per cent in each of the previous two years, and was forecast to double annually over the next five years. The main reason was the growth of the use of smartphones, and the popularity of social networking sites on mobile devices (Vestberg 2010).

In Singapore an unlimited data package costs $S60 ($US43) a month. In Malaysia the charge is 80 ringitt ($US25). In the UK an unlimited data package costs about 30 pounds a month ($US45). In the United States consumers typically pay $70 a month for an unlimited data package. In countries like Australia, use of the mobile phone to stream live video is rare. As of March 2010 few of the country's telecommunications companies offered unlimited data packages and data transmission fees were expensive. Meanwhile, advanced nations like South Korea offer major innovations in terms of data transmission for the mobile phone. South Koreans can subscribe to a monthly wide area broadband package known as an "Egg". It consists of a modem with a wifi card on it, plus a battery. This effectively provides them with an individual roving wifi hotspot – giving Internet access of 50Gb at any time and any place – for only $20 a month (Gruen 2010).

Mojo pioneers

Around the world, groups of innovative journalists and organisations have embraced smartphones for delivering images and video as well as text to the web. The Thomson Reuters news agency has been a mojo pioneer from its European headquarters in London, equipping its journalists with a mobile journalism toolkit since 2007. Mark Jones, editor of Reuters' breaking news service News Alert, said the company was looking to the future: "We were thinking about new ways to report." Jones said his role was to be more available to the audience, plus he wanted to give journalists technology that was portable and flexible (Jones 2008).

Ilicco Elia, head of Consumer Mobile for Reuters Media, said the mojo project was the start of a new way to tell stories. "Mobile phones allow journalists to swap their heavy camera equipment for a smaller device," he said. Elia said the mojo project's initial aim was to take a mobile phone off the shelf and see if it could be adapted for reporting. Nokia asked to be involved and made some enhancements to the device. Nokia also offered a bluetooth-enabled keyboard and modified a microphone to provide improved sound quality for interviews. Over the next few years Nokia would produce mobile phones capable of taking images of the same quality as high definition television cameras, Elia said. "This will open up huge possibilities for journalists" (Elia 2008).

Matt Cowan, a media reporter for Thomson Reuters in Europe, said the new technology was less intrusive than traditional cameras and microphones. "What's amazing is that you can sidle up to someone and take pictures and video, which people find surprising. It has real potential to capture people's thoughts in places where you would not have a full crew. Its portability is what makes it so exciting" (Cowan 2008). Reuters' chief scientist Nic Fulton said his company and Nokia had decided to work on a multi-horizon strategy, looking at what they could do immediately, but also what they could do in the near future and further down the line. Mobile technology was evolving extremely fast. "Five, maybe even three years out, mobile phones could have HD [high definition] video capability and they could have extremely powerful VPUs [processors] and keyboards. You might say it's a laptop. I still think that it will ultimately be a very personal mobile device. So clearly there is potential for it to have quite a transformative effect on journalism" (Fulton 2008).

Darren Waters was the BBC's technology editor until mid 2009 before he became managing director of a media relations company in London. Waters experimented with filing mojo reports from various parts of Europe from early 2008. In February and March of that year he used a Nokia mobile phone to report from the world mobile phone congress in Barcelona as an experiment. "The video quality was fine for what we wanted to do on a blog," he said. But the sound quality from the internal microphone was "just awful". It was acceptable if the reporter got within a couple of metres of the subject but any further away and the sound was a problem. Waters summarised his findings in a report for his colleagues: "During the experiment the picture quality was indifferent, the sound quality was ropey, the content was so-so. It was a triumph." Waters said during the trial he learned a lot about the technology but also about how using a mobile phone

influenced the workflow for reporting. He also discovered the kinds of video people wanted to watch on a blog or web site, and what content audiences wanted. “The videos that ended to work, to get lots of hits, tended to be exclusives, or spontaneous news, or quirky events, which is perfect for mobile journalism.” Waters said he learned to shoot “discreet blocks” of video and lots of short interviews. “Some of them were very dull. They were too long, or they rambled, or we were too far away from the subject for good sound quality.” But some were interesting because the interviewees were interesting. “The important thing for us is that without the camera we would not have had any video. So the camera gave us an extra layer of material” (Waters 2008).

In Norway, Frank Barth-Nilsen runs the editorial training department for NRK, the national broadcaster. Barth-Nilsen is an advocate for mojo and writes a blog on the subject. He said NRK’s various departments planned to use mojo content for mainstream platforms like television. “A lot of other broadcasters and newspapers are interested in our findings,” he said. “We’re building a toolkit for our journalists, focusing on speed and usability. We’re also looking into how the new technology will change today’s way of storytelling.” He uses his blog, Mojo Evolution, to share knowledge globally (Barth-Nilsen personal communication 2009).

Reporters at Inquirer.net, the online site of the *Philippines Daily Inquirer* in Manila in the Philippines, have been filing stories remotely via mobile phones since 2007. JV Rufino, the company’s vice-president for mobile, said it was easy to send photographs and text via narrowband Internet. But video sometimes was a slight problem because the files are so much larger. “We cannot send video in real time; it tends to be a gap of anywhere between half an hour and several hours. Reporters have to go to an Internet café or back home to get a faster connection. Or reporters have to compress the video to a manageable size on their notebook [small laptop computers] to make it transmittable. They have had to learn how to do some post-processing work to make the files smaller, to get the files down to 4Mb to 6Mb.” Some reporters only send a few selected video clips because that was much faster, Rufino said. The clips were meant to accompany an article for the web, and not stand alone. “The fastest we have had something on the web is about 20 minutes from the time it happened” (Rufino 2008).

The author of this paper has worked as a mojo and trained journalists as mojo in six countries since 2008. In September 2008 he sent a live video stream from a press conference prior to a major sporting event in Victoria in Australia. This is believed to be the first example of live mojo work in Australia. He streamed segments of video to the web site of the local daily newspaper, the *Geelong Advertiser,* from outside a sports ground in the lead up to the grand final of the Australian Football League. He also secured the only interview with the person who gave the press conference, despite an announcement of no personal or individual interviews. This was an example of the discreet nature of mobile journalism, where the people taking part do not believe that video is being streamed live to the web.

Changing roles for journalists

At least six companies offer software for streaming live video from a mobile phone to the web. This software is currently free. One of the best known is Qik, based in San Francisco, which the author has used extensively in several countries. The software enables people to stream videos directly from their phone to the web. Reporters can use their mobile phone like a camcorder to capture news and go live (see http://www.qik.com). Jim Long, a photographer with NBC News, was in Africa in February 2008 covering a visit by then president George Bush. Long used a Nokia phone connected with Qik software to broadcast an interview with Sir Bob Geldof, the humanitarian and former rock star. “No large broadcast quality camera or a satellite uplink. No editing or B-roll. Just the news” (Long 2008).

On 20 August 2009, television reporter Jeremy Jojola used an iPhone and Qik software instead of an outside broadcast truck to cover a story for KOB-TV in Albuquerque, New Mexico. Technologies like Qik and the iPhone are changing the way journalists report live television. The author worked as a television journalist in the United Kingdom, New Zealand, Australia, and the United Arab Emirates. Getting an outside broadcast truck to a breaking news scene for a live broadcast involves a lot of time and money. An outside broadcast truck costs several million dollars, needs a crew of at least two, and costs thousands of dollars an hour to run and maintain. The cost of an iPhone with free software is almost negligible by comparison. Jojola said he was “waiting for the day” when he would be able to report live breaking news from the scene without a photographer or an expensive live truck. “I have a feeling that day is going to happen very, very soon. The technology is cheaper and faster [than traditional television equipment], and it’s only going to get better,” he said. “What news manager isn’t going to like that,” Jojola asked rhetorically (Quinn 2009: 8).

The mobile phone combined with free software like Qik makes mojo work possible. But as with all tools, a person makes the choice to use or reject that technology. As well as technology choice, the issues of changing job roles and the difficulties associated with being a “jack-of-all trades” always surface whenever mobile journalism is discussed. Should and can one person do everything? Is it fair to expect one person to work long hours to produce content for many media? These are questions that will be resolved with time. Meanwhile, the technology just gets better.

In February 2010 students from Canadian and American university journalism programs reported from the field during the Winter Olympic Games in Vancouver in Canada. They used iPhones with VeriCorder software to create multimedia stories that were submitted wirelessly from the field to the newsroom. The stories incorporated sound and still images into slideshows. VeriCorder is a Canadian software company that specialises in iPhone apps. Examples of the students’ multimedia stories are available at http://www.mojo-revolution.com.

Two months later, journalism students Erica Zucco and Brian Pellot from the University of Missouri worked as television reporters at the National Association of Broadcasters’

(NAB) show in Las Vegas. They covered the show for the Daily Buzz web site using only an iPhone, a small microphone, an Owle Bubo metal case for the iPhone and 1st Video software from Vericorder. The students recorded, edited and posted video during the show solely from their iPhones. Their teacher, Professor Karen Mitchell, said the future of journalism was shifting, and "becoming more and more [focused on] mobile". This would ultimately produce a shift in the way companies thought of journalism equipment, she said (Hurst 2010). Vericorder CEO Gary Symons was a former investigative reporter with the Canadian Broadcasting Corporation before starting the company in 2009: "VeriCorder Technology produces the world's most advanced smartphone mobile media applications for recording, editing, and sending audio, video and photo files. Our multi-media convergence tools put a portable audio and video-editing studio in the palm of your hand."

Journalism education and mojos

Mark Glaser, who writes the MediaShift blog for PBS, America's public broadcaster, believes journalists must embrace multi-media: "It's not enough to be a broadcast journalist, a print journalist or a photojournalist in the digital age. Now, journalists need to learn a host of skills to reach different audiences. A student studying print journalism should learn how to be on camera and how to shoot video and photos. A person studying broadcast journalism should learn how to write for the web, and how to moderate an online forum." Glaser said new graduates with multi-platform skills would be in demand at traditional media outlets. "This is the best time in history for new journalists to make their own way, start their own media outlet and get noticed" (Glaser personal communication 2008).

Jeff Jarvis runs the interactive media strand at the graduate school of journalism at the City University of New York. After spending a week as a mobile journalist at the World Economic Forum in Davos in Switzerland in 2008, he concluded that all journalists should be equipped as mojos. At Davos Reuters supplied about 20 delegates with Nokia N82 phones. "We already know that camera-phones in the hands of witnesses have been changing news. There is no better illustration of that, so far, than the 7/7 [London] bombings. But I now see that this same device may change the job of the journalist in ways more radical than I could have imagined until I started reporting with one," Jarvis said. The mobile phone would change the role of the journalist, he concluded, and recommended Nokia mobile phones because they allowed reporters to upload or broadcast while mobile and could also be used to send photos to Flickr and tweets to Twitter (short-form journalism, like reporting via SMS). A wired journalist without a camera and connectivity was "like a hack without a pencil" (Jarvis 2008).

The benefits of the mobile phone as a newsgathering tool seemed considerable, Jarvis said: They were compact, light, able to use unobtrusively, people did not take them seriously, and media organisations were able to spread the newsgathering options by giving phones to several people. The only drawbacks he could see were the cost of the phone plus data charges because telecoms companies charge for data transferred rather than time online. Some interviewees would not take the mojo seriously because of the

small size of the camera. They maintained that the small phone did not look "professional", Jarvis said. "All reporters are online reporters now. I'd want any reporter who could report live to have it [a web-connected mobile phone]." In 2008 Jarvis's journalism program purchased five Nokia N95 phones and paid for the data charges because the school believed it was important for students to experience using the technology for newsgathering: "I have no doubt that in a very short time, when the next big news story breaks with reports coming from the scene and from witnesses, it will be live. Imagine if Jamal Albaughouti's seminal camera-phone video/audio of the shooting at Virginia Tech [on 16 April 2007] had come in live, as technology now allows" (Jarvis 2008).

Conclusion

It is important to note the complementary nature of mojo work. It is not designed to replace high-end video cameras for broadcast television, or high-end digital stills cameras, or broadcast-quality audio recorders. But it offers a "Swiss army knife" option for producing multi-media content when no other technology is available. Mojos are an ideal way to get video onto a web for breaking news. Said Cowan of Reuters: "I don't think this is the way we'll all be reporting. But it will be an incredibly important tool that plays into how we report stories. It injects a kind of dynamism" (Cowan 2008).

Darren Waters, formerly of the BBC, also saw the potential of mojo work. "The thing that struck me about mobile journalism is that opportunity plus capability is the key. If you have got the phone in your pocket and the systems in place to be able to send video, then you can report at any time. You do not have that luxury when you are relying on a cameraman, or need to set up your own camera. And with exclusive video, audiences do not mind if the camera work is a bit rough around the edges." Waters said mobile video would never replace professional cameramen who created professional news packages. But technology was evolving fast. "What is interesting is the speed of development. We are likely to get mobile phones that can record in high definition in the next year" (Waters personal communication 2008).

Darren Waters best summarised his organisation's approach: "From the BBC's perspective, if we do not engage in this [mojo work] soon, someone else will. Putting systems in place and training journalists with the technology needs to happen soon." Similarly, Kevin Andrews, former blogs editor for *The Guardian*, sees great potential for the mojo concept. "Mobile technology lets journalists stay closer to the story and connected not only to our office but also to our audience. News organisations that experiment now will be best placed to take advantage of the journalistic possibilities that ever advancing mobile technology allows" (Andrews 2008).

The mojo-equipped reporter will become more attractive as a newsgathering option, especially in the wake of the global financial crisis as media companies look for more ways to save money. Certainly we are likely to see media companies make more use of audience-generated content because most of that content is provided free. But audience-

generated content brings its own group of problems, such as credibility and accuracy and the risk of defamation. That is the topic of another paper.

In a tight job market, students seeking jobs as reporters will increasingly need to have some sort of unique selling point (or USP, to use marketing jargon). Mojo skills offer one type of USP. Meanwhile, the desire to embrace technologies that save time and accelerate the newsgathering process will continue to push journalism into new areas and encourage new areas of innovation.

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