

Mojo made easy

Mobile journalism is go! From smartphones to smart apps, **Ivo Burum** gives his tips for a mojo tool kit that means business.

In the decade since internet evangelist Howard Rheingold wrote *Smart Mobs: The next social revolution* (2002), his techno determinist view, which suggested that it was enough to be connected, shifted to a more realistic approach: "...how can we use digital media so that they make us empowered participants rather than passive receivers, grounded, well-rounded people rather than multitasking basket cases?"

With more than 7 billion mobiles and almost 3 billion smartphones in use, the planet is potentially full of multitasking online churnaholics, delivering what Charles Feldman calls an "information tsunami".

Once thought to be the bridge in a home-work-play continuum, mobile devices are now our preferred mode of connectivity. Today 84 per cent of Facebook's daily visitors log on via mobile. In Japan, 100 per cent of people who own a smartphone research their next purchase using their device. And every journalist I train to mojo already uses a smartphone to record and file story elements.

Understanding digital literacies and how to use mobiles more effectively is fundamental to being able to capitalise on the flow of online information. Knowing about the technology – what's out there and its use value – is also crucial. The following list of must-have tools will help the budding citizen or professional journalist to mojo from almost anywhere on the planet.

Camera hardware

At the heart of the basic mojo kit is a smart device. Generally mojos use smartphones, which have an extended list of accessories and better cameras. Smartphone cameras are electronic and have no movable shutters. The camera's power comes from an app's ability to harness and manipulate the smartphone's electronics. Deciding whether your smart device will do the job, or whether you need to use a hybrid system – digital single-lens reflex (DSLR) or video – is an important consideration. If you want to shoot on a smartphone and edit on a computer, use the phone with the best camera. In this case possibly the Samsung G5, which has a 16-megapixel camera (higher



Basic mojo kit. © Ivo Burum



Ivo Burum recording a PTC (piece to camera) using a Manfrotto Pixi tripod and an mCamLite cradle. © Ivo Burum

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on the new G6). If you want to shoot and edit on a smart device, you will probably go iOS because you can buy editing apps that support two-track video editing. Here are some essential features to look for in your smart device:

- Cellular and WiFi connectivity
- A high resolution 8 megapixel or better camera
- A fast processor for editing, processing images and remote location uploads
- A relatively small device so that you can eyeball your subject when filming
- Access to advanced camera, audio, editing, post-production and transfer apps
- Accessories such as cradles, lights and microphones.

Mojo work is generally fast and handheld, so buy a cradle like the mCamLite (around \$180), Phocus (around \$110) or Shoulderpod (around \$35). Cradles have fixing points for tripods, lights and microphones, and can add stability when panning and tilting. They also have wider or longer lens options. A light tripod like the Manfrotto MKC3-H01 (around \$100) is useful for interviews. A mini tripod like a Manfrotto Pixi (around \$35) or the Rode Tripod Mini (around \$40) is useful for selfies and stabilising handheld shots. If you need a crane consider the Australian-made Boombandit (around \$195).

If the job requires varied lenses and a hybrid DSLR solution, there are a couple of options. I use a Lumix

GH4 because it shoots video at up to 200Mbps, has a flip-out screen and plugs for an external microphone and headset. At just under \$1700 plus lens, it's an affordable alternative to more expensive systems. Also check out the full-frame Sony a7S. However, be careful to drill through the DSLR video drool. A DSLR's shallow depth of field is brilliant for losing backgrounds in sit-down interviews, or on drama. For the same reason, they are more difficult to use than a video camera when covering unfolding actuality. For example, at the scene of an accident you need deep focus and a zoom rocker to alter focal length quickly. When I need VJ features I use the Sony PXW-X70 video camera. It has a 1-inch chip sensor so is low-light friendly and 4K-ready. What does your job require?

Camera and audio apps

The app industry began with the launch of the first iPhone in 2007. Today there are more than 1.4 million apps on the Android and Apple [iOS] platforms. Revenue from apps is predicted to exceed US\$77 billion annually by 2017. Hard to conceive given that almost 90 per cent of apps are currently free.

Camera apps come in four categories: stills, video, live and proprietary (apps linked to platforms such as Instagram). I mainly use the native Camera app that ships with the iPhone. For specialised work, depending on the level of control required, I use the following:

- Camera+ (\$3.79) – arguably the best stills camera app on the market – features high-level image control before and after exposure, zoom, stabiliser, separate exposure and focus settings, white balance and control over brightness, colour, sharpening and much more.
- Filmic Pro (\$9.99) is the most-used video app among people shooting serious video. It enables separate white balancing, light metering and focus points. It has the closest thing to a non-destructive zoom on a mobile phone that I've seen. It allows in-camera choices to shoot in slow or fast motion, has variable frame rates and monitors audio in real time. There are many more features you'll explore when you use the app.



A number of smartphone cradles. © Ivo Burum



Audio apps ship with smartphones and dozens are available on the Android and iOS app stores. Unless I require special bit rates, I record my narration using the inbuilt camera app. I detach the audio from the video electronically before inserting it on the edit app's timeline. If you need a specialist audio app, consider the following:

- Voice Memos ships with iOS and includes an edit feature to shorten tracks before uploading; but there are no controls over audio quality.
- RØDE Rec is easy to use and has equalisation (EQ) and enhancement features that include compression and expansion; gain; hi and low pass filters; and various send features.
- MultiTrack DAW (\$12.99) is an advanced multi-track recording and audio edit app. It has a range of input and export options and records files in mp3, wav, aac, m4a, aif and m4a.

Multi-track audio apps record on more than one track on the app. But unless you have a mixer (Roland Duo-Capture EX) or an audio splitter (RØDE SC6), you'll need to record one track at a time. Output from multi-track apps is still one mixed file at a time. In video work it's important to load separate audio tracks into the edit app. To record separate audio sources attach a microphone and a Zoom H5 (records four tracks), or the H6 (records six tracks), to your smartphone and cradle. One of the features you should look for in an audio app is in-built target destinations, such as Camera Roll and YouTube.

Microphones

Walter Murch, the famous Hollywood sound editor and mixer, reminds us that "90 per cent of film is sound". But audio is often left until last when we prep for filming. Unlike feature films and some long documentaries, which use post-synced sound and dialogue, a mojo needs to know how to record clean audio in noisy field locations. People often ask: which microphone is best? Well, that depends on the job, your budget and whether you are working alone.



Rode Video Mic Pro. © Rode

The best tip I ever got for recording clean audio was get in close to the sound source. Access is everything. Having said this, using the right microphone will help mojo stories look and sound 200 per cent better, be more usable and hence more effective. Every kit should include a lapel microphone like a RØDE smartLav+ (around \$60) and a shotgun microphone like a RØDE VideoMic Pro (around \$215). Go to <http://bit.ly/smart-mojo-microphones> for an overview of nine microphone options. A Zoom digital recorder can act as a second audio recorder that can be placed close to the source to enable the camera to rove.

Edit apps

As I wrote previously in this magazine, professional editing requires two tracks of video. One for the story cut and one for a B roll. This way the story can be cut quickly, before adding narration and the B roll to cover, compress or expand story points. Therefore I use the iOS platform because it offers smartphone apps – iMovie 2.0 (\$6.49) and Voddio (\$12.99) – with two-track video. VideoPad, which has two video tracks, is available for Android and iOS tablets, and

Journalism student Ryan Hyde using a Mojo kit. © Ivo Burum

KineMaster advises it's about to launch its updated multi-track video edit Pro app for Android phones.

Post-production tools

As mentioned before, the quick and effective way to post-produce audio is to do it in the video editor while tracks are still separate. VideoGrade (\$7.49) is my choice for a smartphone video grading app and Snapseed (free) is a very powerful yet easy-to-use tool for grading stills. Mojos will do most of their post-production on their smart device in the field, so look for an edit app that has mixing and ducking functions and a name supers and subtitles facility. If you need to move media across devices or platforms, try AirStash (around \$66), or the SanDisk Connect Media (around \$130) or Flash (around \$75) wireless transfer drives. These create a local WiFi network and can stream to multiple devices simultaneously.

Publishing from the field

You will need access to 4G or WiFi. One option is to send stories to a YouTube channel. Many news agencies will have their own FTP or proprietary sites. Check out Dejero, LiveU or Bambuser for live streaming.

Power to the people!

Mobile journalism sounds very technical and having the right tools is important. But mojo is more about empowering individuals with the skills to create their own voice, and linking community with a global communications sphere. Hence, real mojo requires a journalistic and multimedia skill set to enable the true potential of your new technology. Go mojo!

Dr Ivo Burum is an award-winning television writer, director, executive producer and journalist. He is currently delivering his innovative mobile journalism (mojo) workshops across Australia and internationally

