
New photo transfer apps are challenging security perceptions in medicine



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In today's medical establishments there are several ad-hoc, but often insecure, approaches to taking photos of patient's ailments in common use, making use of either phone or camera hardware. Most doctors wish to attach the resulting photos to their EHR (Electronic Health Record) systems, and be able to access them again quickly on-screen for a given patient, or transfer them to partners. New apps for phones are now starting to make this process safer and more convenient, including apps from MedImage.co.nz and PicSafe.com.

Modern digital cameras and mobile phones both have high quality photo-capturing capabilities that potentially allow doctors to take a photo of a patient during a consultation without being intrusive. However, in practice, both these methods have had limitations in terms of ease-of-use and security, that have hindered their uptake.

Getting the photo from the digital camera to the patient record system usually takes a number of steps, including potentially:

- Renaming files
- Plugging in memory cards
- Using 3rd-party file-transfer tools (e.g. Dropbox) over unknown international servers
- Selecting the right photo in a Windows file-selector, or
- Emailing from a phone

All of which are either inconvenient or insecure.

For each photo that a doctor takes in some EHR systems, this procedure can take **up to five minutes** out of a doctor's busy schedule. And once this is done, a trail of private photos IS left on the phone or camera, if they are not carefully deleted.

Modern phone apps are now coming into wider use to help address these issues. For example, the MedImage app will send photos via a secure private wireless link (eg a secure 3G/4G connection) to the user's desktop system and append it to the EHR system record automatically, deleting the photo from the phone once this has been done. The whole process happens without any intervention and takes **around 10 seconds** of the doctor's time.

The challenge for this type of app is to retain a level of flexibility to ensure that it will function smoothly in the doctor's existing environment, without staff needing to carry out any major IT changes. Doctors are typically at the behest of their IT advisors, who are understandably cautious when considering any new additions to their systems.

MedImage's approach is to provide an open and extendable platform (both 'open-source' and with an 'Open Application Programmer's Interface', or Open API), that allows system integrators to build new 'add-ons' to provide convenient photo insertions to existing EHR systems, and provide additional PC-side processing of photos. For example, current add-ons to MedImage provide the ability to resize photos, or analyse changes in visible wound sizes.

Cost-wise, the Australian (PicSafe) and New Zealand (MedImage) based-app providers are conscious that a wider uptake will only occur for this new breed of medical tool if there is a low entry point for doctors to start experimenting with. PicSafe provide a free version of their app with limited photo resolution functionality, and once satisfied, costs US\$9/month per doctor. MedImage provide their app as a professional-only paid app (US\$10), with full capabilities for getting the photo to the doctor's desktop PC, both with a sensible name and in the correct folder; but sell additional EHR connector packages for adding the photos to specific EHR packages. MedImage also provide the option of transferring photos via their own secure servers at US\$2/month per doctor.

It remains to be seen whether a dedicated photo app for doctors will become an indispensable tool for doctors, standing apart from the more established general-purpose photo or file-transfer apps, such as Dropbox.

In some larger EHR systems, dedicated developers have already built custom photo apps for their own EHR system. Whether doctors will:

- Wait for existing EHR software providers to develop an app directly for their package, or
- Start to use an app that isn't tied to one EHR, or
- Shift their EHR package of choice to platforms that support this kind of functionality

is an open question. From the EHR developer's perspective, ready-made solutions now exist, and integrations to these apps will likely be more cost-effective than redeveloping a whole new app for their own platform.

Early indications from one-year-long live trials in New Zealand suggest that the gains in time and convenience that a focused medical-only app can provide are significant enough to warrant further evaluation.

Peter Abrahamson is a Director of AtomJump Ltd, New Zealand, which develops the MedImage app available at <http://medimage.co.nz>

Image Credit: [Medimage](#)

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