

SA's crowd-sourced solution for a global problem

 By [Sue Disler](#)

22 Feb 2018

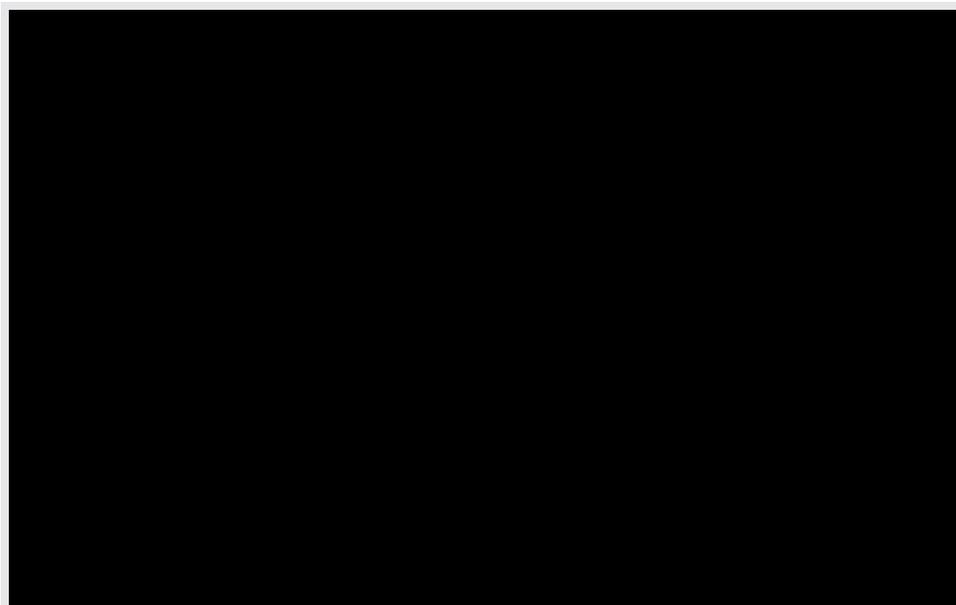
It's always a pleasure to see a South African take the stage at Design Indaba. So, when [Dr William Mapham](#), an ophthalmologist hailing from the Eastern Cape, who conceived the [Vula app](#) whilst working at the Vula Emehlo Eye Clinic in rural Swaziland and experiencing first-hand the difficulties faced by rural health workers in need of specialist advice spoke on Day 2, you could only feel the pride... and his talk was so inspiring, it brought tears to many in the audience and received a standing ovation!



Dr William Mapham

Image © Christopher Larson/Scott Gorman.

One of the triggers for the idea was bumping into a patient after he worked in a rural hospital in the Eastern Cape, where he had written a referral to see a specialist in Umtata as he did not know how to treat him due to lack of expertise at that stage. Seven years later, he learned that the patient had lost vision in one eye, as he had never got to the specialist. Mapham knew that he had had access to the information at the time, the medication had been actually available in the clinic and he would have been able to save an eye.





To give you a better perspective, in South Africa, the private health care system has about 1 doctor and 1 specialist for 1,500 people, and in the public system, there is 1 doctor for 4,500 people and only 1 specialist for 18,000 people. Mapham recalls when working in a clinic in the Eastern Cape even trying to get a telephone installed in a rural area proved trying as they need a street address in order to install a landline. Long story short, he ultimately gave the address - No 1, Dirt Road, Elliotdale – a town 45 minutes away, and eventually someone came out. Even so, they could only manage to get a radio link instead of a landline, but it was clear that something had to change... and the advent of mobile became the enabler.



#AfricaCom: Rural healthcare and digitalisation

Nicci Botha 9 Nov 2017

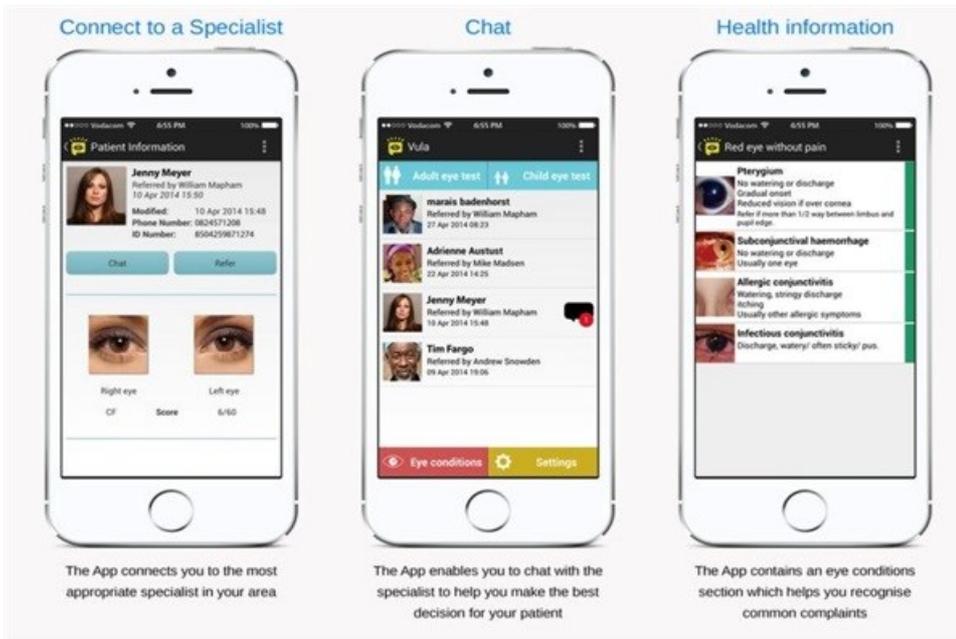


How it works

Essentially the Vula app helps ensure patients get the right care when they need it. Its a secure medical chat and referral application that's designed to help healthcare workers to, quickly and efficiently, make and receive referrals with 4,000 medical specialists in 15 specially fields – ophthalmology, cardiology, orthopaedic, burns, HIV, dermatology, ENT, paediatrics, oncology, gynaecology, family medicine, general surgery, internal medicine and neurosurgery at present.

The chat functionality helps the health workers and specialists who are time sensitive work in an asynchronistic way and current response times are under 15 minutes – weirdly enough they find the least tech people respond the fastest!

Not only has it been a great success in treating patients, but also the educational aspect of self-training is high. From a doctor at Baragwanath to a sister in Vredendal who trained herself case by case remotely and managed to raise money from Japan to open her own clinic. Plus the amount of crowd-sourced data captured – they currently hold over 80,000 photographs – is so significant it's proving to be an invaluable asset not only to health workers and specialists but health organisations, too.



The App connects you to the most appropriate specialist in your area

The App enables you to chat with the specialist to help you make the best decision for your patient

The App contains an eye conditions section which helps you recognise common complaints

The process.

[click to enlarge](#)

OPERATION SIGHT

SOUTH AFRICA HAS 2 HEALTHCARE SYSTEMS: PRIVATE & PUBLIC

- 1 DOCTOR PER 1,500 People
- 1 DOCTOR PER 4,500 People
- 1 SPECIALIST PER 18,000 people.

CHALLENGES

- REACHING PATIENTS CAN TAKE MANY HOURS
- PATIENT CAN'T READILY TRAVEL DISTANCES.

BUT: RURAL HEALTHWORKERS HAVE VERY MODERN MOBILE DEVICES

- THERE WAS AN OPPORTUNITY TO ALLEVIATE DEMAND ON RURAL COMMUNITY HEALTH WORKERS WITH THE HELP OF AN APP
- PROVIDE SPECIALIST EYECARE AT A PRIMARY LEVEL

The future of design is exciting.
Ready?

PROVIDING SOLUTIONS

COMBINING DESIGN & MEDICINE

PROVIDING SPECIALIST EYECARE IN DIFFICULT-TO-REACH AREAS

- PROVIDING PROFESSIONAL HELP
- ACCESS TO OVER 15 SPECIALISTS
- BESPOKE FORMS SPECIALIST SPECIFIC
- RESPONSE TIME ≈ 15 MINUTES
- USED BY RURAL HEALTHWORKERS ALL OVER SOUTH AFRICA
- 1 IN 3 PATIENTS MANAGED WITH ADVICE ALONE
- DOING SOCIAL GOOD
- 1 PERSON HELPED EVERY 8 MINUTES
- DATABASE OF 80000 PICTURES

"DON'T DISRUPT, RATHER GENTLY BEND..."

vodacom

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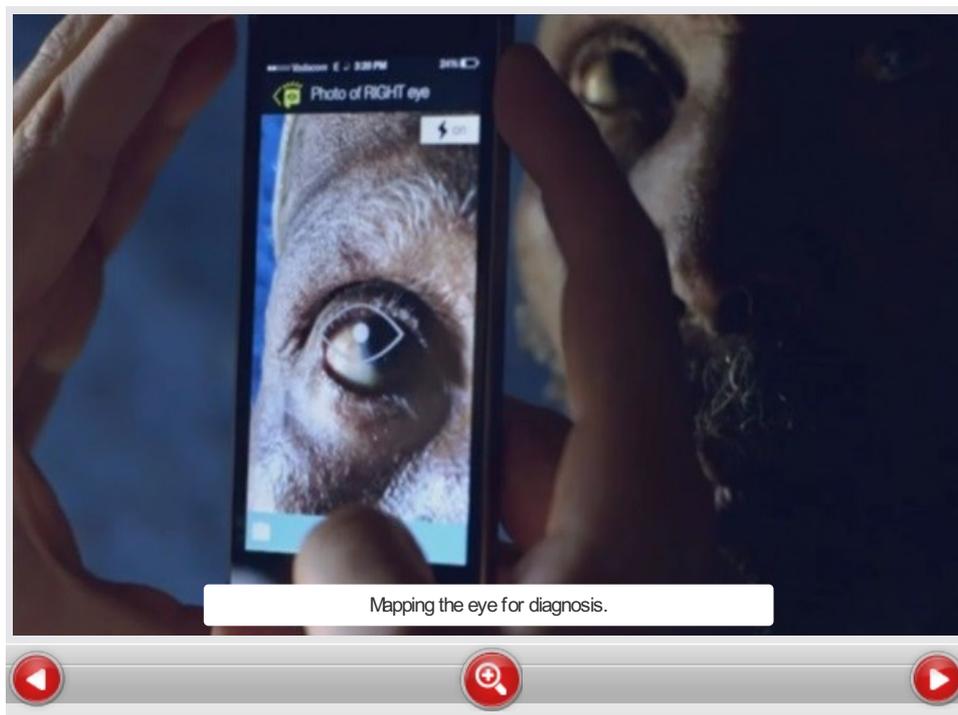
Operation Sight © Rob@flamingpencil.co.uk via Design Indaba.

When asked what happens with the data, Mapham said, "The heads of departments can actually monitor what is going on in real-time, which enables clinical governance, which is how they actually manage peoples actual care. People have never seen this before because you can't monitor everyone's landline phone call, but we are monitoring all the advice going out and it's being used in teaching cases."

To Africa and beyond

So what about expansion plans? His answer was, "we get asked all the time, not just from African countries, but the likes of Cambodia, New Zealand and others and the challenge there is, 'Who is the health worker?' the biggest problem is validation. In SA we have access to medical records, so we know exactly who is a health worker, and only health workers are allowed onto Vula." In fact, he joked at the beginning of his talk he is probably the only person who doesn't encourage the general public to download the app.

He carries on, “The biggest problem and actually it’s a design problem, but how do we roll out to countries that don’t have that? In Namibia for example, all the health records are in a room – you can’t send someone to check every time someone tries to register, so the design team is looking at ways to solve that and once that’s done we can say ‘yes’ to people overseas, but until now we have actually resisted.”



As a start-up, Vula has always battled with funding, and the development of the app so far has been largely reliant on money from prizes for innovation and entrepreneurship.

Initial funding came via a flash grant (R50,000) from the Shuttleworth Foundation and donation of time to design and create a prototype by Debré Barrett and her team at Flow Interactive (now part of Deloitte Digital), which helped Mapham win the SAB Foundation Social Innovation Award in 2013. That prize money ensured the launch of the Android and iOS app in 2014 and since launch, they have won [Most Innovative App](#) at the MTN App of The Year in 2015, first prize at the 2016 Clearly Vision Prize awards and more recently a [Platinum Award](#) at the Impumelelo Social Innovations Awards.



SAB Social Innovation Award winners 2013

5 Nov 2013



The company was almost “flatlining” (his words) in 2016, but after Barrett joined on a permanent basis, they started to see some exponential growth and a huge increase in uptake and by default the value of the app became a much more viable option for investors and interested parties – which Will Green now handles from a commercial point of view.

They have developed a tiered system for the likes of the banking, insurance and medical industries to gain access over the 4,000 time-pressed medical practitioners. Not only will it facilitate corporate involvement, but the partnerships will enable keeping the app free.

And the future?

“ The dream is videos – like a [Suzelle](#) of howto do medical procedures. ”

Mapham finished his talk with a video, which was captured after performing cataract surgeries on several patients in De Aar recently. One lady had not been able to see for 9 years and had to be helped all the time. Then through one surgery, suddenly she could see – her thankful tears made us all cry, too and the standing ovation that followed reiterated his opening words: “Some people say nothing good comes out of the Eastern Cape – Mandela came from there...”
To find out more, click [here](#).

ABOUT SUE DISLER

Sue Disler has more than 25 years of experience in the advertising and marketing as a designer (and sometimes coder), art director and strategist, the last 20 largely dedicated to digital. Email her at suediz@gmail.com, follow @suediz on Twitter or find out more on LinkedIn.

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