

# Report for the Global South eHealth Observatory of the



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FONDATION PIERRE FABRE

THE APP PUTTING THE MOST DISADVANTAGED  
PATIENTS IN CONTACT WITH DOCTORS



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*Meeting with Dr Jacques Durand, founder of DoctorGratis in Jakarta, on 29 December 2015. We will be talking with him and Davy, one of the network's most active on-call doctors, for a whole day.*

*DoctorGratis consists of about 50 part-time doctors in contact with hundreds of thousands of patients around the world via their mobile phones. How? Why? What are the results? And the health benefits? What challenges have been encountered? What are the objectives? How would it be possible to help DoctorGratis further improve the service it offers and increase the number of patients who can access it? Find out all about this project which is among the leaders in e-health in emerging countries.*

## The birth of DoctorGratis

Dr Jacques Durand, founder of DoctorGratis, arrived in Indonesia for the first time on a humanitarian mission almost 10 years ago. He would return several times before settling there permanently. He first created a highly lucrative cosmetic surgery clinic in this country with a strongly growing economy. Dr Jacques Durand then sold his clinic to devote himself to DoctorGratis.

How was the DoctorGratis project formed? As a doctor, let alone as one of the only Western doctors in the country (which today still has only 60,000 expatriates, out of nearly 250 million inhabitants, less than 0.024% of the total population), he was highly sought after by friends for medical advice. He realised that there was a need for information and reassurance. The problem of the quality of information found on the Internet is just as important as the need for trust.

In 2013, Dr Durand launched a medical social network, a collaborative platform of exchanges on symptoms and medical cases... He quickly realised that Indonesians are much more reluctant than the French to report their medical problems in public, even online. However, one of the website's features is very popular: the *chat* (instant messaging) which allows a connection, live and private, with a doctor, especially for some initial information and medical advice - simple, general, and informed.

Moreover, it is often difficult for people who have not studied to write a comprehensive description of their symptoms: the format of the *chat* exchange (with simple sentences, questions, reminders and requests for clarification from doctors) also helps to democratise access to medical advice.



This is why, in 2014, Dr Jacques Durand decided to focus on the *chat*, and make it a mobile app adapted to discussion and the preferred communication terminal of users in developing countries in the south: the smartphone.

## How does DoctorGratis work?

From the user perspective, patients around the world seeking serious but affordable medical advice discover the DoctorGratis app, with the promise of being able to consult with a doctor free of charge. They download it, register and can chat via instant messaging to doctors in Indonesian, French and English. Patients can share their symptoms, send photos and ask questions to a doctor, who can analyse the situation and give their opinion, advice and recommendations (although they obviously cannot write a prescription). At the end of the discussion, patients can rate the quality of the exchange with the doctor.



From the doctor perspective, they have been selected (Dr Davy who we met was recommended by one of the network's first doctors) and are paid to respond to patients live during set hours (Dr Davy, Indonesia, takes slots between 12pm and 7pm, but doctors are available everywhere between 8am and 10pm on average). DoctorGratis is therefore a parallel, complementary activity for doctors, in addition to their work at a private clinic or hospital. *"This allows the doctors to find a balance, and not to be permanently in virtual consultations,"* explains Dr Jacques Durand. Dr Davy confirms that the hours of care she can give from home for DoctorGratis allow her to have greater freedom. In addition, this experience in contact with international patients and sometimes with clients she does not work with at the hospital allows her to progress in her experience as a practitioner.

Dr Jacques Durand also explains that the doctors' first mission is to reassure and inform in order to reduce patient stress and allow them to make more rational decisions.

DoctorGratis was established in 2013 and domiciled in Singapore owing to legislative facilities for an increased possibility of international partnerships, even if its activities were initially focused on Indonesia. Founder Jacques Durand has appointed a French director, Emmanuel Pradot, in Singapore to manage the operational side. There is also a French accountant in Jakarta.

Furthermore, a technological director, Sébastien Letélié (also French) is based in Strasbourg. Most of the app development took place in China, but Dr Jacques Durand would like to be able to recruit French developers in the future. The *chat* (instant messaging) technology exists and is secure, and DoctorGratis also has *"a solid back end, able to cope with high user numbers"* according to Dr Jacques Durand.

DoctorGratis consists of three teams of doctors, in Indonesia (Indonesian and English language), in Madagascar (in French) and in Nigeria (in English). In Indonesia, doctors were recruited through Dr Jacques Durand's network and that of his wife, also a surgeon at the Jakarta Hospital. In Nigeria and Madagascar, DoctorGratis published job offers in medical journals, and interviewed candidates to select them.

There is no training beyond the two hours on using DoctorGratis mobile apps, but there is permanent live support for doctors during their consultations. Dr Jacques Durand and other experienced doctors can see live conversations between doctors and patients and intervene directly with the doctor to provide advice and recommendations, both on form and content. Even though instant messaging does not require broadband, DoctorGratis had to find offices with a stable internet connection to allow doctors to carry out their care hours without technical interruption.

## What are the health benefits?

The health benefits generated by DoctorGratis are twofold: they concern patient care and doctor training. For patients, this is to offer initial medical contact to those for whom the geographical and financial constraints affect the decision to consult a doctor. Free and accessible everywhere, DoctorGratis offers a first opinion to reassure, and if necessary encourage the patient to see a doctor.

Patients benefiting from DoctorGratis can be anyone with a smartphone and internet connection, and an immediate need for simple medical advice. Dr Jacques Durand tells us that most of them are women and use it for problems concerning pregnancy and early childhood. Then come cases of cancer - Dr Jacques Durand tells the story of a patient who after undergoing the first two stages of chemotherapy, wondered if it was really worth going to the third session. The next most common theme is dermatological problems, for which patients often send photos. After that come problems concerning weight and sexually transmitted diseases.

In the United States, the 'second' DoctorGratis country, Dr Jacques Durand explains that the service is used by adolescents who may be ashamed of their problem and/or do not yet have means of payment.



Dr Jacques Durand insists that DoctorGratis offers above all a response to the need for reassurance, reliable information and psychological support to help decision-making, particularly by giving guidance.

As Dr Davy explains, DoctorGratis allows doctors to gain experience and to train themselves in understanding symptoms as expressed by patients. **DoctorGratis allows doctors to add a tag to a conversation, in order to aggregate discussions around the same issue.** The administrator interface makes it possible to support doctors in giving advice, in direct contact with patients.

## A real triumph! Is DoctorGratis a victim of its own success?

Of course, being able to discuss freely, directly and privately, wherever you are in the world, is a valuable proposition that can meet a real need.



This is why DoctorGratis claims to now have nearly **three million active users worldwide**. Every day, DoctorGratis facilitates up to **1,200 consultations** (40% new users on average). The countries where the app is most popular (in order) are: Indonesia, India, the United States, Great Britain and Nigeria.

DoctorGratis initially did a little promotion to get started, especially in Indonesia, before returning to more organic methods, given the power of word of mouth and the high demand for free medical advice, as well as the financial impossibility of recruiting doctors indefinitely. If doctors are recruited on a part-time basis, their remuneration is only a supplement to their income, and even if these doctors have modest remuneration standards specific to their respective countries (Indonesia, Madagascar and Nigeria), DoctorGratis does not yet have the means to cover all expenses to meet all the potential demand.



*Dr Davy, doctor for DoctorGratis & Arnaud Auger, consultant for the Fondation Pierre Fabre*

## What is the economic model?

How can the project of remunerating doctors be made viable to offer free consultations to patients? According to Dr Jacques Durand, given the real need, it was first necessary to find a solution to respond to it which had to be satisfactory and popular in order to find financial support.

DoctorGratis is therefore self-funded. Dr Jacques Durand is himself associated with 80% of the shares, while 20% was invested by another French digital entrepreneur in Indonesia.

First of all, what are the costs? 70% of the costs are represented by doctor salaries, technological development and maintenance represent about 25%, while management and marketing efforts only total 5%. The founder is therefore not paid for DoctorGratis, and even has a second job as a medical director for a "premium" app around connected devices and artificial intelligence. This allows him to learn many things that could be useful for DoctorGratis in the future.

Even if business models still need to be developed, DoctorGratis is already making money from the users themselves: if DoctorGratis is free for 24 hours, users are then invited to make a donation if they are satisfied with the service and want to continue to benefit from it. The donation amount depends on the place of origin of the patient: 45,000 Indonesian rupiah for six months (or nearly 30 cents per month) in Indonesia, one euro per month in France, one pound per month in Great Britain, two dollars per month in the United States. Patients can also easily be offered/sponsored for months or numbers of free consultations by third-party organisations via activation codes. **DoctorGratis can thus suggest that a partner offer 10,000 consultations to patients.**

In addition, the DoctorGratis doctors are general practitioners: if patients want to see a specialist, they can do so through a network of specialists on the app, this time paying around \$9 a month and \$40 at the consultation, wherever the patient is (remembering that seeing a specialist such as a dermatologist in Indonesia costs \$15 at a public hospital, and between \$40 and \$50 at a private clinic).

Beyond the users themselves, the qualified and considerable audience of DoctorGratis can interest commercial partners as well as non-profit organisations. For example, the insurance company Axa offered patients in Indonesia three months of free insurance (to be renewed if they wished). The main Indonesian and Pakistani telephone operators also compensated DoctorGratis for the data consumption of its users.

DoctorGratis has been contacted by a credit agency to propose its solution for funding hospitalisation costs (\$400 to \$800 validated within 24 hours at 15%), to meet the immediate and urgent needs of patients who need to be treated as quickly as possible.

Despite its limited resources and in order to respect its social health mission, DoctorGratis has had to refuse commercial proposals. According to Dr Jacques Durand, he would like to have the support of non-governmental and/or humanitarian organisations to partially fund DoctorGratis, and to establish a medical committee and an ethics committee to validate the choice of commercial partnerships for the responsible development of DoctorGratis.

## FreeTelemedicine and Demographics



Survey with data from February 2015

### What challenges have been encountered?

As explained above, the first challenge faced by DoctorGratis is funding doctors to meet the demand. It is extremely frustrating to have to limit the number of patients who can benefit from the DoctorGratis telemedicine services.

To solve this problem, it would be necessary to have commercial partnership managers located in different countries (such as India where patients are particularly interested in DoctorGratis, but where the app must be discrete, as DoctorGratis currently has no potential partner to finance this huge demand). As we have seen, there is also a need for an ethical committee that is capable, beyond the sole judgement of Dr Jacques Durand, to determine the consistency of a potential partner with DoctorGratis values.

There is also a need for a quality manager, who is responsible for monitoring online consultations and coaching the various doctors to further support them, establishing good practices and sharing lessons for the entire medical community.

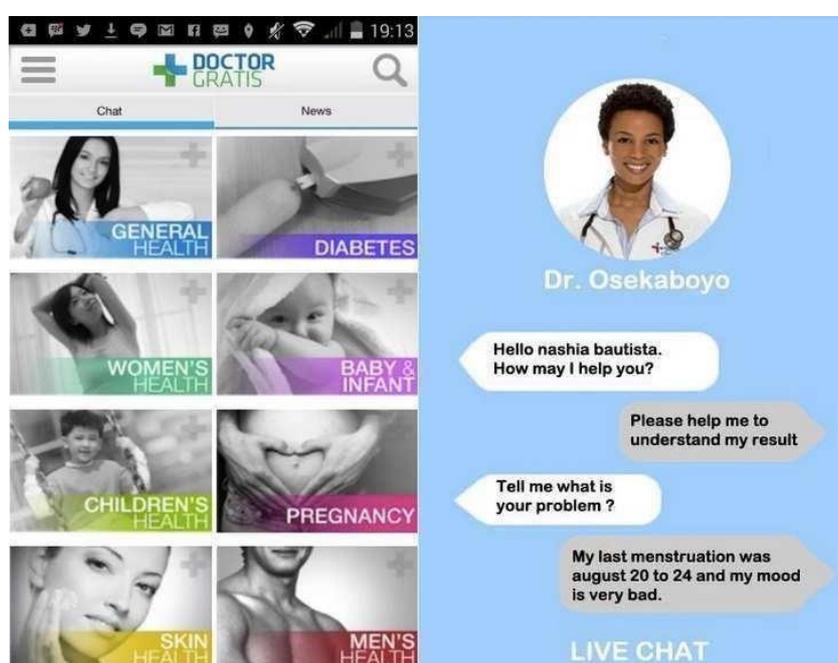
It should be noted that DoctorGratis does not face any regulatory difficulties in the exercise of its telemedicine mission. Before a patient can contact a doctor, the app firstly displays a cautionary notice stating that the medical advice offered does not replace a real consultation.

The United States accepts this telemedicine benefit given its social nature. **Furthermore, the app does not threaten patient privacy as exchanges over the phone are deleted once the conversations are over and the app does not store patients' medical records.** In France, as the doctors do not prescribe, medical advice is subject only to the regulations of the doctor's country. In addition, DoctorGratis does not resell patient data without patient consent, even though the information may be "anonymised" for study purposes.

## What are the objectives of DoctorGratis?

According to Dr Jacques Durand, there are two levels of objectives for DoctorGratis: the first level concerns the app itself, and the second level relates to its expansion.

As far as the app itself is concerned, Dr Jacques Durand wants to continue to improve it in order to better meet the needs of patients. **He spent eight months with Sébastien Letélié to finalise a version with an online magazine, aggregated content, and the possibility of having an asynchronous discussion with a doctor in order to be able to answer even more requests for consultation.** With the same goal in mind, the founder of DoctorGratis also envisages a platform where doctors could offer consultations voluntarily, to make themselves known, to train, or even to be paid immediately without commission from DoctorGratis. Given that problems related to newborns are the most recurrent, why not also offer consultations with midwives?



Even if the backend technology is robust to the traffic according to Jacques Durand, the interface could still be improved. The goal is to have the most localised content possible. When opening the app, users could enter by region and topic. The app could also offer a unique and secure user ID so that, if desired, the patient can have a medical record, thus facilitating their follow-up care.

In addition to the app for users, DoctorGratis would like to create an app intended only for doctors to exchange information and good practices.

Beyond the objective of improving and finalising the app to better meet the needs of patients and doctors, one ambition is to expand the app to a greater number of users. With three million active users today, the goal is to reach **10 million by obtaining €200k** to recruit teams (doctors, quality managers, partnership managers).

## The first destination that Dr Jacques Durand has in mind? French-speaking Africa!



With a team of doctors in Madagascar which, unlike the English-speaking teams, is not yet overloaded, he could promote the use of his app in French-speaking Africa even before finalising it. For this, Dr Jacques Durand will rely on the network of his uncle, director of 13 hospitals in Congo. However, he seeks partnerships and would like to be able to rely on the OIF (International Organisation of La Francophonie), possibly to create a team of *DocteurGratuit* doctors in Benin.

Beyond French-speaking Africa, Jacques Durand wants to expand DoctorGratis in each of these regions: Latin America (perhaps from Cuba), India, English-speaking Africa, the Arab world (perhaps from Jordan), the rest of South Asia (also perhaps with a presence in Vietnam), and finally the Portuguese-speaking countries from Angola. The goal is to be able to offer exchanges with doctors all over the world, in English, French, Spanish, Portuguese, Arabic and Indonesian in particular. It would take just one representative in each of these regions to establish partnerships and fund local doctors. Even the United States could be further explored, with a social mission to avoid negligence as nearly 30 million Americans, although insured, decide not to consult a doctor owing to the cost.

When we ask Dr Jacques Durand what advice he would give to other e-health initiative leaders, he answers: *"If the project leader is in France, they must immediately think of French-speaking emerging countries. The e-health giants will be in emerging countries where users are more numerous, there are more "early adopters" - followers of innovations - the needs are more obvious, there is less competition and fewer regulations."*



## What support & partnerships are possible and relevant for DoctorGratis?

Firstly, in its partner consultation funding model, the at least symbolic support of a recognised organisation could help continue to **provide DoctorGratis with credibility to give it weight in its negotiations.**

Secondly, Dr Jacques Durand clearly expressed his wish to **compose an ethical and medical committee to support him in choosing commercial partners.** The committee could draft a code of ethics for telemedicine also to be complied with by new DoctorGratis doctors.

Thirdly, **DoctorGratis could benefit from networking with other organisations such as the WHO** (World Health Organisation), **UNICEF** (United Nations Children's Fund), **UNAIDS** (United Nations agency to coordinate AIDS initiatives), the **OIF** (International Organisation of La Francophonie), or **Facebook's Free Basics** (data consumption programme offered by Facebook and telephone operators in developing countries) for its promotion.

Fourthly, for doctor training, **DoctorGratis would like to offer workshops** to train its doctors in telemedicine.

Fifthly, DoctorGratis could enter into **partnerships with coworking spaces and internet service providers** for its doctors who, in Nigeria for example, must have access to a reliable and secure internet.

Sixthly, DoctorGratis would obviously welcome **any interested support or sponsor to offer patient consultations by country or health issue.** DoctorGratis already allows third-party partners to precisely monitor its activity, by country or pathology, in real time, and can be the subject of accurate reporting. Dr Jacques Durand would like to go even further, developing real-time data visualisation (via IP address, age, sex, language, satisfaction).

In addition to the help that DoctorGratis could receive, Dr Jacques Durand is just as willing to offer support himself. For example, **he would be prepared to make all anonymised conversations available for a doctoral student studying, as part of a thesis, the formulations of epidemiological problems and symptoms, to better understand patients.** This thesis could be funded by an organisation via a CIFRE convention. To go even further, Dr Jacques Durand suggests that he would also be interested in the study of cultural specificities and good practices related to cultures and religions in the expression of symptoms.



## Conclusion

This field survey proved to be very informative and positive. We have been able to draw many lessons in terms of e-health in developing countries in the south, thanks to the experience of Dr Jacques Durand and DoctorGratis.

We have also been able to deepen our understanding of the constraints, objectives and health benefits of DoctorGratis. Dr Jacques Durand's social mission and his choices in terms of economic models that are sustainable, viable, autonomous and ethical are very encouraging.



*Dr Jacques Durand, founder of DoctorGratis & Arnaud Auger, StartupBRICS partner, member of the Observatoire de l'e-santé dans les pays du Sud of the Fondation Pierre Fabre.*