FRIDAY

Part of
PA Consulting

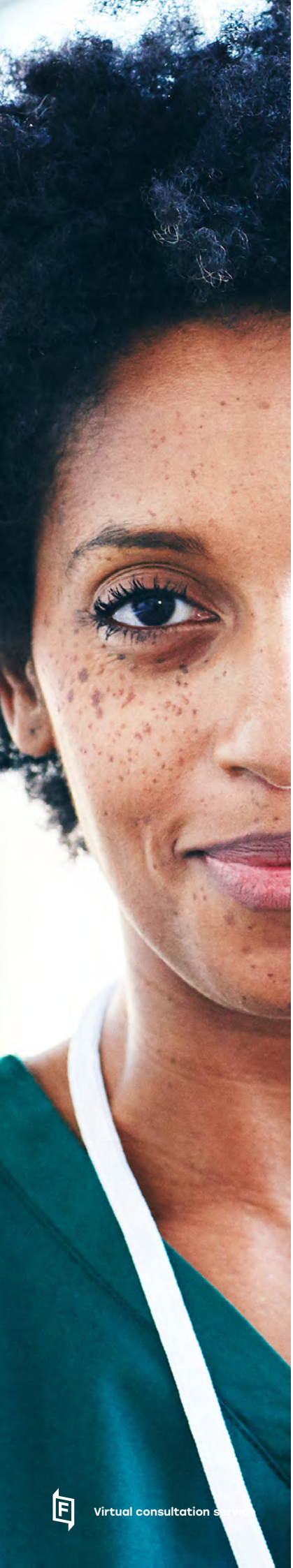
TEARDOWN

A practical guide
to delivering a

virtual consultation service

THE QUESTION

What does it take to develop a virtual consultation service, **and do it right?**



Introduction

Within the healthcare industry, the means to deliver a virtual consultation is becoming more mainstream, and Friday have first-hand experience of development in this area.

For the purposes of this teardown, we'll be focusing on medical consultations but plenty of other consultation types exist – they're convenient and location independent for the user, and relatively inexpensive to deliver and scale for the provider. Lots of healthcare and insurance providers now offer a virtual consultation service to their patients or members, and we've been asked a number of times what it takes to conceive, deliver and operate such a service.

The truth is simple: these services are complicated, and there are serious commercial, technical, data, privacy, compliance and cultural considerations to be taken into account in the planning phase. In our view, a failure to look at each of these areas carefully will result in difficulties later when attempting to release your service into market.

In this teardown we unpack these considerations and shine a light on the areas that need to be taken into account when launching a virtual consultation service.

Why bother with virtual consultation?

Delivering one-to-one consultation services is expensive. Traditional models (for example, seeing your doctor) normally involve you making an appointment and then travelling to a hospital, clinic or surgery. It's quite normal for your time slot to be convenient for anyone but you and your appointment may result in time off work, childcare support needs and the rescheduling of other things you've got going on.

→ Five billion pounds is the estimated cost to the British Economy for time taken off work to visit GPs*

Virtual consultation allows for much greater flexibility and convenience. It promises to transform the way in which patients can book and receive certain types of healthcare.

If your organisation is already delivering health consultations, it's something you will be well aware of and may be considering offering to your patients. We believe that done right, virtual consultations can have significant benefits for everyone involved - patients get better access, and organisationally you can deliver a better service at a lower operational cost.

↓ 85% of cases can be dealt with **entirely** via virtual consultation**

Where should you start?

Fundamentally, with the desired patient and consultant experience, not with technology.

You want your patients to adopt your service and feel comfortable in doing so - that doesn't happen if you simply surface a selection of existing technical services. Instead, you should take the time to research your patients (demographics, needs, locations) and consultants (capabilities, availability, locations) and operational staff (business needs, processes and procedures) to develop a clear understanding of the opportunities such a service will bring to each.

Your business stakeholders will have an ambition for your virtual consultation service, so you need a simple way of weaving your user research with that ambition to create a roadmap which can be used by the technology providers when it comes to implementing your new service. At Friday, we call this roadmap a Target Customer Experience and have proven time and again that it's a hugely effective way to combine, align and consolidate different user needs into a clear way forward.

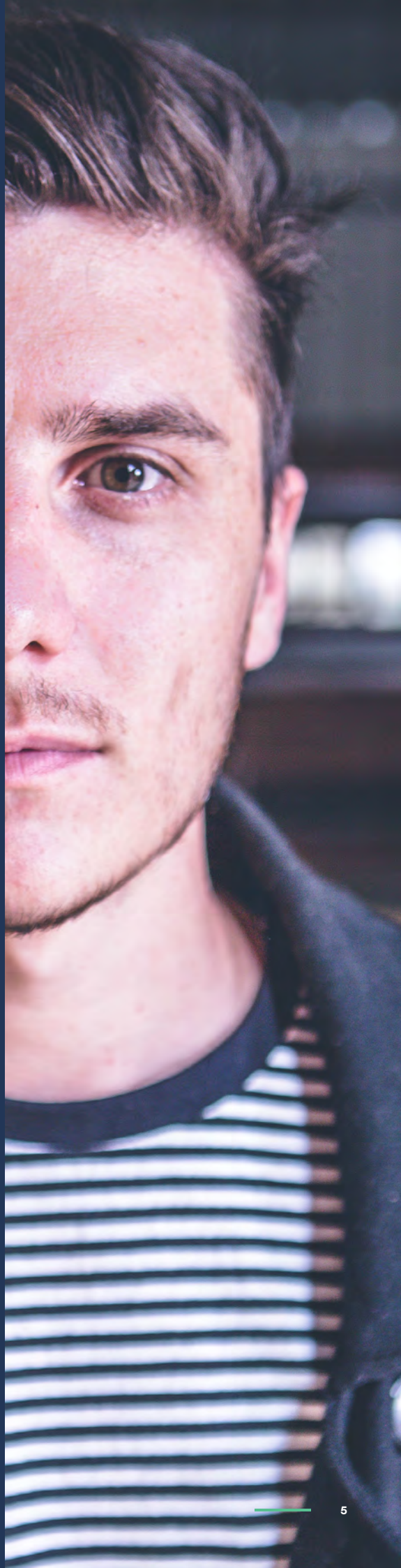
* *Virtual consultations in general practice: embracing innovation, carefully*, 2017, British Journal of General Practice

** *How technology is changing the GP consultation*, 2018, Pulse

What does a virtual consultation service involve?

Assuming you have a clear roadmap of your service, you'll quickly reach the point where technology comes into play. This may be made up of internal systems, third party systems, and new systems that may need to be acquired to deliver the agreed experience. The technology – which is essentially a gateway to data in most cases – will also need to obey appropriate security and regulatory rules, which in the health and medical industries are necessarily strict.

Adverts in the media show glossy pictures of people having virtual consultations and the benefits this can bring. Quite obviously, they don't come close to describing the complexity of the underlying systems that deliver such experiences.



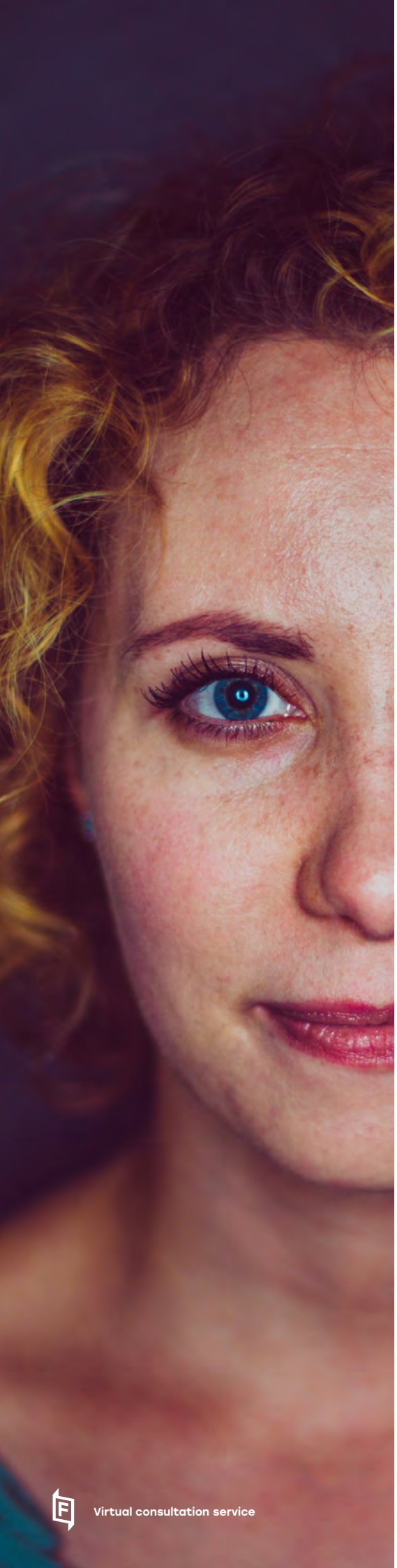
Virtual consultation systems are not simple, and even a basic one will be made up of various constituent parts

1. The mobile app, which is the entry point for patients having a consultation. This needs to work across the supported device types you'll find in market – iOS, Android, phone, tablet.
2. A desktop app (which may require the patient to install something on their computer) for laptops and desktop computer-based consultations.
3. A Patient Management System (PMS) that contains the medical records and notes generated by your health practitioner or submitted by the patient.
4. A scheduling system that allows patients to book consultations with appropriate consultants (this may be part of your PMS)
5. A recording system that allows video consultations to be stored for patient access, quality management review and legal/compliance purposes.
6. A method for verifying patient's identity in a way that meets everyone's security and privacy needs.
7. A method for connecting these various systems and data repositories together so that they can deliver the desired patient experience.
8. A method for monitoring system use and performance, allowing you to address specific issues with the service over time.
9. A communications/messaging system that allows you to remind patients of upcoming appointments – this might be email, SMS or mobile messaging.
10. A method for exporting or sharing data – to meet patient needs (for example, transferring provider) and privacy regulations (the EU's General Data Protection Regulation would be relevant).

Modern digital expectations from a user's perspective mean that you need to work hard to connect these elements together in a way that doesn't force legacy technology interfaces or constraints onto the user. It requires close collaboration from IT, digital teams, third parties (probably) and business stakeholders, and the temptation might be to simply "surface" internal systems in a limited way to achieve your aims. We strongly recommend that the desired customer experience drives these conversations rather than technology capability.

We have a technique, based on the Target Customer Experience roadmap, that allows functional slices of an experience to be exploded rapidly for technical and regulatory assessment – it's called "slicing", and helps everyone work in concert to deliver the desired patient experience whilst quickly identifying areas of specific complexity.

We have never seen a complete "all in one" solution that you can simply switch on to deliver a virtual consultation experience, and due to the complexities of handling and processing patient data and the list of things such a service needs to deliver, we don't really expect to.



Operational management considerations

You may not need physical premises to consult with your patients, but you do need staff – suitably equipped and qualified to conduct consultations. Importantly, your consultants need the IT equipment and connectivity to deliver your service; this might mean changes to your IT in some way or checking that the local office infrastructure can support multiple consultations simultaneously, at the right level of quality.

If your service is successful and widely used, you'll need to look at capacity planning and be able to spot patterns in the types of consultation to ensure you always have enough people with the appropriate specialist knowledge available. Quite often, such consultants may be drawn from other areas of your business, so their virtual consultation schedule needs to marry up with any other diary or task system they may use – particularly relevant in the case of large healthcare providers who rely on external consultants in various fields to provide medical services to patients in hospitals or clinics.

You'll also need to cater for technical maintenance tasks and service improvements – based on patient and consultant feedback and business needs. Launching a virtual consultancy service results in a 24/7/365 support requirement because things will go wrong and need fixing, and over time there will be technology changes outside of your control that you'll need to react to (e.g. mobile vendors changing their operating systems).

Other important considerations

In planning a virtual consultancy service, there are plenty of other areas you should add to the "to do" list.

Some may not be applicable, and you can strike them off quickly, but we've seen the areas listed below raised repeatedly, so we thought we'd share.

Cultural sensitivities

Different cultures approach health in different ways, and the idea that everyone is comfortable with adopting virtual consultations because it's modern and easy should be tested against your target market's cultural norms.

There are religious and societal norms within every culture that may require proper consideration when developing your solution – including but not limited to:

1. Etiquette and accepted conversational practices in the context of a consultation.
2. Ensuring female patients can only be seen by female consultants.
3. Ensuring that social stratification is observed where it's a (currently) inviolable part of the cultural dynamic.
4. Ensuring consultants are fully conversant in the language of the patient.
5. Ensuring you can support a wide video angle of view – for when parents are present in a consultation for their child.
6. Ensuring that consultations can be recorded, and copies of those recordings made available to the patient.
7. Ensuring that digital interfaces and assets (for example pictures and iconography) are culturally appropriate.

A successful solution, given the highly personal nature of medical consultations, will make great strides in these areas – technology may cross boundaries and act as an agent for positive change, but behavioural norms and the cultural codices that underpin them don't change overnight. We would recommend, depending on the market concerned, seeking professional advice with respect that market's cultural dynamics if you don't have that resource available internally.

Accessibility & inclusivity

This is critically important – your patients have to be able to use your service.

Time and energy need to be put into catering for patients who may have impairments that prevent them from simply "firing up an app". This is doubly true when you're asking your patients to adopt a service that requires a level of manual dexterity, sight or hearing to use. There are ways of supporting everyone and being fully inclusive, but this needs to be seen and treated as important by the whole project team – not an "add on".

Local regulation - data management

Data is rightly a continually hot topic – everyone now lives inside a constantly growing data bubble.

Various organisations within every market exist to define what is acceptable with respect the data your service may collect, transmit or process. Large scale endeavours like the European Union's General Data Protection Regulation (GDPR) are lit up in neon for all to see, but plenty of countries don't subscribe to it and have their own approaches.

The collection of data is one thing, but the transmission of data – especially across geographical borders – is something that you need to pay specific attention to. It may be that you can't do it, and remote services you need to send data to, must move to the local market, or you may have to ensure that local market regulators have access to your data. You should absolutely not assume that it's permissible to deliver the end user experience into a local market and simply hook it up to other systems in other countries.

Local regulation - privacy and technology

You might expect consultations to be protected under personal privacy or professional rules but this may not be the case. Whilst large parts of the world have robust, highly public and enforceable privacy laws, equally large parts of the world do not.

You might also expect that large technology vendors with virtual consultancy products are able to use those products in any market – but again, this may not be the case. Services which offer end to end encryption, or don't run through state owned telecoms networks, or don't offer insight into the service use to official bodies may all be caught up in this.

Local market regulation needs to be explored – not all markets will allow all technologies to simply be deployed to their citizenry without specific functional or regulatory compliance.

It is entirely possible that a local market places demands on your service that are contrary to your organisation's values or make it commercially nonviable to proceed – better to find out up front.

Local infrastructure - assessment, capabilities and controls

There are broadly two sets of consumers in the digital world – those who arrived on a desktop computer and then adopted mobile devices too, and those for whom their mobile device is their primary, if not only, link to digital services.

The latter group is likely to have an additional consideration; cost. How much will it cost, on average, for a patient to use the service if there are high costs associated with mobile data usage? This needs to be evaluated based on market research data, as you don't want to be launching a swanky new service into a market where you can't get traction due to the telecom bills associated with it.

Further, when you're looking at deploying into markets which are predominantly mobile focused, you should investigate the market penetration and growth patterns of mobile vendors and device types. You may not find it commercially viable to deploy your solution into a world dominated by 3G feature phones, or you may find that the phones available are controlled (either in models available, or the use of walled gardens) and there is a specific way in which your service needs to be delivered to end users. You shouldn't assume that you can just upload your virtual consultation app to the Apple App Store or Google Marketplace; they may not be available or allowed.

You must also look at the local telecom infrastructure and its ability to support the customer experience desired, remembering that it's likely that your video consultation service will be connecting to other services that may not be located in market. The connectivity required to support multiple hops between geographies or systems need to be determined and tested, to assess whether inter-systems communications channels are sufficiently quick to offer a good experience.

Fundamentally however, virtual consultations only really work effectively if the quality and reliability of the connection is high. Slow, constantly buffering or heavily artefacted video streams or poor audio aren't satisfying for anyone, and minimum acceptable service levels should be defined. If the local infrastructure can't meet them, the question becomes one of whether launching into that market is viable.

SUMMARY

The desired patient experience should take primacy over technology considerations, and be used to **drive technology solution development** not the other way around.

Summary

Every service provider has a unique set of circumstances – whether that's the patients they're serving or their technology approach. The temptation will be to assume that a virtual consultation service can be created by either buying something off the shelf and plugging it in, or that patients will accept a service that does what you believe they want, but in a way that makes things frustrating or overly complex.

In short: start with the patient experience, align behind a roadmap, don't forget the broader regulatory and cultural landscapes, and the technology will deliver.

If you'd like to talk more about your virtual consultation plans, we'd be delighted.

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About the authors

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Chris is CTO and COO at Friday and leads technology & operational strategy. He is directly involved in project scoping, analysis and planning for our clients, ensuring things are delivered on time and to spec.

He has been a digital technical authority across high profile advertising & digital agencies and has spent 20 years designing, coding and deploying systems and platforms on behalf of clients like HSBC, Comic Relief, Nuffield Health, AgeUK, British Airways and Volkswagen.

LINKEDIN PROFILE →

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Atan has been working in digital, marketing and service design for 25 years. After leaving Oxford University in 1993 with a masters in law, he helped develop LAWTEL, the UK's first online legal information service.

He's been working in digital ever since – client-side, at creative and digital agencies, and for .com startups. For the last 8 years at Friday, he's been leading programmes of digital transformation for the likes of Nuffield Health and Aetna International.

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Friday is an experience design and engineering agency, part of PA Consulting.

Clients partner with us to re-imagine and design their customer experience, improve the technology that powers it, and develop the capability to better manage it themselves.

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