Commoditising Digital Intraoral 3D Scans

Public project summary

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Client background

The client is an early-stage start-up focused on digital dentistry. Their ideas and research revolve around digital intraoral 3D scans. The founders themselves are involved in medical research around the topic. The backbone of the company's services is planned to be a digital vault, where intraoral 3D scans, 2D x-rays and health status records are uploaded and stored. The intention of the project was to set a direction for developing the envisioned product or service.

Scope of the project

This project paints a picture of a typical customer journey in dentistry today, both from a patient's and the dentist's perspective. The latter is mostly be focused on the interaction with the patient and exclude technical aspects. The intention was to investigate the potential improvements in this journey that can result from introducing a service based on intraoral scans. Aspects considered included: operational efficiency, the quality of the service, customer engagement and how all of these are connected. The vision is to revolutionise the dental industry by shifting the focus from reactive treatments to a digitalised and largely preventive service. The ultimate goal of this paper is to present a vision on how SCRUNCH can

be a key player in this equation. For that, it is necessary to have a deep understanding of the behaviour and needs of our potential customers and their background they are coming from. Dentistry nowadays is largely regional by nature. As such, our researched focused on markets we had direct access to and we thought would be comparable to each other, and therefore we only worked with EU countries. It was also an important aspect that SCRUNCH would most likely start up its operation somewhere in this region.

Methodology

To get to know the potential customers, user interviews were conducted with approximately 15 participants, both potential customers and dentists. The findings were shared internally and technical feasibility was further investigated as part of another Capstone Project. Three personas were developed as part of the project, which can be used as the key users when developing the company's services and products. Research material from EU initiatives was utilised to further investigate the potential market and scale for the envisioned services.

A wide range of ideas already existed in the company for different products and services revolving around a data vault. These were envisioned in a product portfolio, however, the connection to customer needs was not clear. As such, the project revolved around transforming this solution oriented ideation into a process where the customer needs connected with the strategic scaling of the service were in focus.

Findings

A clear set of core issues has been established for both the customers and dentists. The goal of the solution will be to provide a service that is mutually beneficial for both of these parties. A summary of these issues can be found in Table 1. We can see that the 3rd potential solution intends to address all these 'pains' experienced in this journey.

	Patient's side			Dentist's side			
		Expectations	Knowing what to do	Time efficiency	Efficiency (front-end)	Efficiency (back-end)	Effectiveness of treatments
Solution	1				х	х	
	2			Х	х		
So	3	Х	х	х	х		Х

Table 1 – Core issues identified in our user research

Based on mapping out the 'pains' of the target customers, a 'minimum viable product' was described. The intention with such a version of the service would be to learn the most about the market with the least possible intvestment.

Many opportunities exist within the European Union and a company such as the client may benefit from several of their initiatives. The following figure presents an example about a characteristics of such a digital healthcare service.

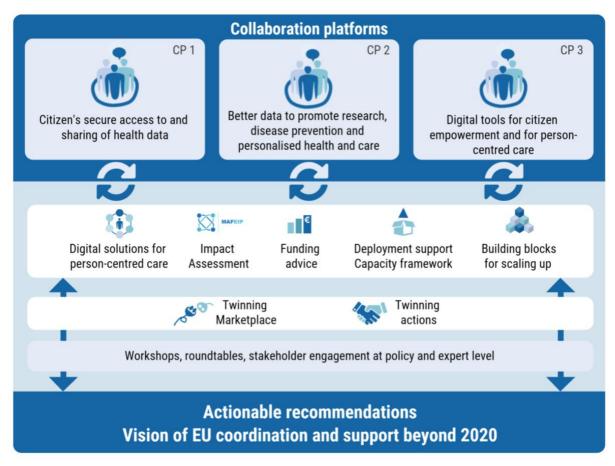


Figure 1 – Overview of Digital Health Europe activities [1]

Conclusions

After considering the customer needs and examining the incentives, potential improvement point in the process and discussing the technical implementation within the company, a direction change was suggested to develop a different platform than originally envisioned. This does not mean the original ideas will not be realised, but the focus is shifted from a product based solution to a digital service. The approach should also provide a more agile way to develop the service and scale the customer base.

References

[1] 2020. Call For Twinning Tenders 2020. Brussels: DigitalHealthEurope.