Product Manager for Maple Corporation

PRODUCT FACULTY

Prepared for Moharyar Ali

Pramesh Attwala
cheers@prameshattwala.com
647-300-7104

Product Strategy Canvas

Medical Records

DIAGNOSIS
Where are we today?

- Doctors need a patient's medical history in order to provide the best patient care

- Medical history/records are usually managed by the patient's family practice not the patient; most often records are scattered across different providers and not easily shared

- **The process of adding medical records to Maple (on desktop or mobile) is a tedious, cumbersome and manual**

GOALS
Where do we want to be (OKRs)

Make it really easy to collect, maintain and share personal medical history and medical records

- Increase the # of return patients by 20%

- Increase the frequency of patients seeking medical advice for pre-existing conditions by 20%

- Expand breadth of non-emergency issues that doctors can treat a patients for

DECISIONS / HYPOTHESES

Patients are less likely to discuss pre-existing conditions with a Maple doctor due to a lack of trust. Thus, Maple doctors most often see new Patients who are experiencing new symptoms.

→

A Patient's trust in Maple doctors will be greater if they know the doctor has access to their medical history. By improving the Medical Records experience, Patients will be more likely to volunteer their medical records.

→

More trust in Maple doctors will result in more frequent visits by existing patients.

ACTIONS

- Allow Medical Records to import Apple HealthKit data

- Improve file attachment user experience

- Partner with 3rd party provider

METRICS

- **Frequency of Medical Records usage increases for both Maple doctors and patients**

- **Decrease in the churn rate**

SAYS

"Access to medical records should be standard."

"A relationship with your doctor is important."

*"Hurry the f**k up!"*

"Health is such a critical factor in your life, you don't want to take any chances."

"A system for managing medical records is valuable, but not necessarily a priority right now."

"Why do I have to wait for something to get bad enough, then need a specialist?"

"Everyone has that little box of pages with all the irrelevent stuff like certificates…"

"My family doctor keeps good records and I've never had a need to see them."

"Doctors visits are annoying. They never go smoothly and they're an impersonal experience."

"I trust my family doctor because he knows me."

"Why do I have to wait for something to get bad enough, then need a specialist?"

"I usually just remember my health records."

THINKS

Modern western medicine isn't the only path to healthcare.

There's a lack of communication in Emergency.

Assumes medical records are shared between providers.

People should be able to do whatever they wish with their medical records.

Someone older with a diagnosed condition has a greater need to maintain health records

If there's a certain kind of medication I need to take, I usually just remember it.

Wishes visits to walk-in clinics could be faster

Don't feel included in the system.

A visit to my family doctor requires a lot of advance planning.

I'm young and healthy and don't have any serious health conditions to worry about.

There should be a central and public system where an individual's medical records/results are accessible

DOES

Has a regular family doctor.

Doesn't have a family doctor in Toronto.

Uses a walk-in clinic.

Doesn't have a relationship with GP

Visits GP to get a referral to a specialist.

Doesn't let ailments linger before seing a doctor.

Takes control health through proper nutrition, exercise, meditation and naturopathic remedies.

Has visited different medical clinics / specialists. Each new visit requires a similar medical intake form needed to be completed.

Keeps a personal file of medical records and/or commits certain things to memory.

Called into work late, or taken a day off, because of a walk-in clinic experience.

Infrequently helps older parents with their doctor visits.

Has paid money to obtain medical records from GP.

FEELS

Frustrated and annoyed by the process of interacting with family doctor.

Excited by the idea of having complete and transparent access to all her medical records.

There is a certain amount of anticipation and anxiety involved when waiting for an appointment.

Filling out intake forms at different medical facilities is annoying and repetitive.

The family doctor does a good job taking care of parents health care.

Feels apprehensive, as though at a disadvantage in the hospital emergency room.

Stranded, hopeless, not comforted

Frustrated by how difficult, and disruptive to my day, a visit to the family doctor is.

Feel a sense of comfort and trust when the doctor knows my history / uneasy when the (walk-in) doctor doesn't know my history.

NEWS ARTICLES

Canadian patients should have online access to their medical records, some doctors say
http://www.cbc.ca/news/health/patient-portals-for-access-to-medical-records-canada-1.4771787

Why can't you access your health record online?
http://healthydebate.ca/2018/07/topic/patient-medical-record-online

JOURNALS

Patient and Provider Attitudes Toward the Use of Patient Portals for the Management of Chronic Disease: A Systematic Review
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376181/

The Effect of Patient Portals on Quality Outcomes and Its Implications to Meaningful Use: A Systematic Review
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4342639/

A call to mandate patient access to personal primary care medical records across Canada
http://www.cmaj.ca/content/190/29/E869

Patients and their medical records: It is time to embrace transparency
http://www.cmaj.ca/content/186/11/811

Doctor-Patient Relationship: A Covenant of Trust
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.572.5568&rep=rep1&type=pdf

POLICY / LAW

Medical Records - The College of Physicians and Surgeons of Ontario
https://www.cpso.on.ca/Policies-Publications/Policy/Medical-Records

Personal Health Information Protection Act (PHIPA) - Government of Ontario
https://www.ontario.ca/laws/statute/04p03

Hypothesis

We believe that by making it easier for patients to provide their health data, patient-doctor trust will improve and the number of subsequent appointments by existing patients will increase.

OPTION 1

FILE UPLOAD EXPERIENCE

Expose the file upload functionality earlier in the medical record creation flow.

Pros

The ability to upload and attach files to a medical record exists in the application (on both web and mobile). Little effort required to replicate this functionality on the record creation screen.

Cons

Introducing file upload/attach functionality to the record creation screen could potentially alienating some users as the additional fields might make the form appear more complicated than it actually is.

OPTION 2

APPLE HEALTHKIT AND GOOGLE FIT INTEGRATION

Introduce Apple HealthKit and Google Fit integration to allow read/write access to health data between Apple and Android devices and the Maple App.

Pros

Mobile health (mHealth) data being captured by Apple and Android devices provide a day-to-day snapshot of a user's health. Early adopters and early majority users will likely have a multitude of apps and/or ancillary devices (like watches, bands or monitors) capturing meaningful data (like resting heart rate, blood pressure, or sleep analysis). The data can be mined further to find trends that might provide insight to doctors during a consultation.

Cons

Web-only users would not benefit by the added functionality.

Significant design and development effort would be necessary to design the activation flow.

mHealth records would need to be distinguished from other medical records, and could not be user edited.

Assuming read access mHealth data allows for transfer of mHealth data to Medstack backend, significant backend development effort will be required to process mHealth data into meaningful and usable information for doctors.

OPTION 3

3RD PARTY PROVIDERS

Partner with 3rd party eHealth data providers and systems as integrations, such as LifeLabs or Dot Health.

Pros

As more healthcare providers continue to replace traditional records with eHealth records, medical records could be imported directly from the 3rd party eliminating the need for the user to input the health data themselves.

Cons

eHealth systems aren't standardized yet and adoption rates vary province to province.

Health records prepared by doctors often use cryptic abbreviations and jargon unfamiliar to the layperson. Also research has shown that some doctor's notes on patient files can be mistakenly misinterpreted as demeaning by the patient. Sensitivity around this factor is important as it could negatively affect patient-doctor trust.

Hypothesis

We believe that by making it easier for patients to provide their health data, patient-doctor trust will improve and the number of subsequent appointments by existing patients will increase.

FILE UPLOAD EXPERIENCE

Expose the file upload functionality earlier in the medical record creation flow.

Pros

The ability to upload and attach files to a medical record exists in the application (on both web and mobile). Little effort required to replicate this functionality on the record creation screen.

Cons

Introducing file upload/attach functionality to the record creation screen could potentially alienate some users as the additional fields might make the form appear more complicated than it actually is.

Option 1: File Upload Experience was selected after performing an analysis of implementation cost (effort) to business benefit (impact), where it was clear that minimal effort would be required to significantly improve the overall user experience in the shortest amount of time.

Option 2: Possibly the most technologically interesting option out of the three, but would require further validation before considering a full implementation. We don't know how many of our patients use their phones for mHealth data tracking. We also don't know how beneficial mHealth data would be to doctors. If it were, what format would be most suitable for quick comprehension to aid diagnosis?

Option 3: Fully integrated eHealth data is the future we're working toward as in industry, but it's far from ready. The inconsistency of adoption across different parts of the country makes it difficult to provide a consistent user experience to all customers. Option 3 would most likely have the largest negative effect to patient-doctor trust, which is the opposite result of what we are trying to acheive.

1.0 Add new medical record - Initial state

NOTES

Add new medical record

Create a medical record for Moharyar Ali

Build a health history

Category

Select ▾

Title

Date of Record (Optional)

Year ▾   Month ▾   Day ▾

Description (Optional)

255 characters left

1

2 Cancel   Create Record

---

1 Drop the file upload button onto the Add New Medical Record dialog box to expose the file upload functionality at the time of record creation. Notable change to interaction: on click immediately opens the Upload File dialog box rather than giving the user the option to upload or take a photo.

2 Buttons move down to create space for the file upload component.

1.1 File upload & take a photo dialog boxes

Upload file

GIF, JPG, PNG, BMP, DOC, PDF < 10MG
accepted

Drag file here to uplod -or- click to browse…

☐ Take a photo **1**

Cancel   Save file

Capture from your webcam

3

☐ Upload file **2**

Cancel   Take snapshot

NOTES

1 Add call to action to allow user to toggle to taking a photo.

2 Add call to action to allow user to toggle back to uploading a file.

3 Centre the camera viewer to the dialog box.
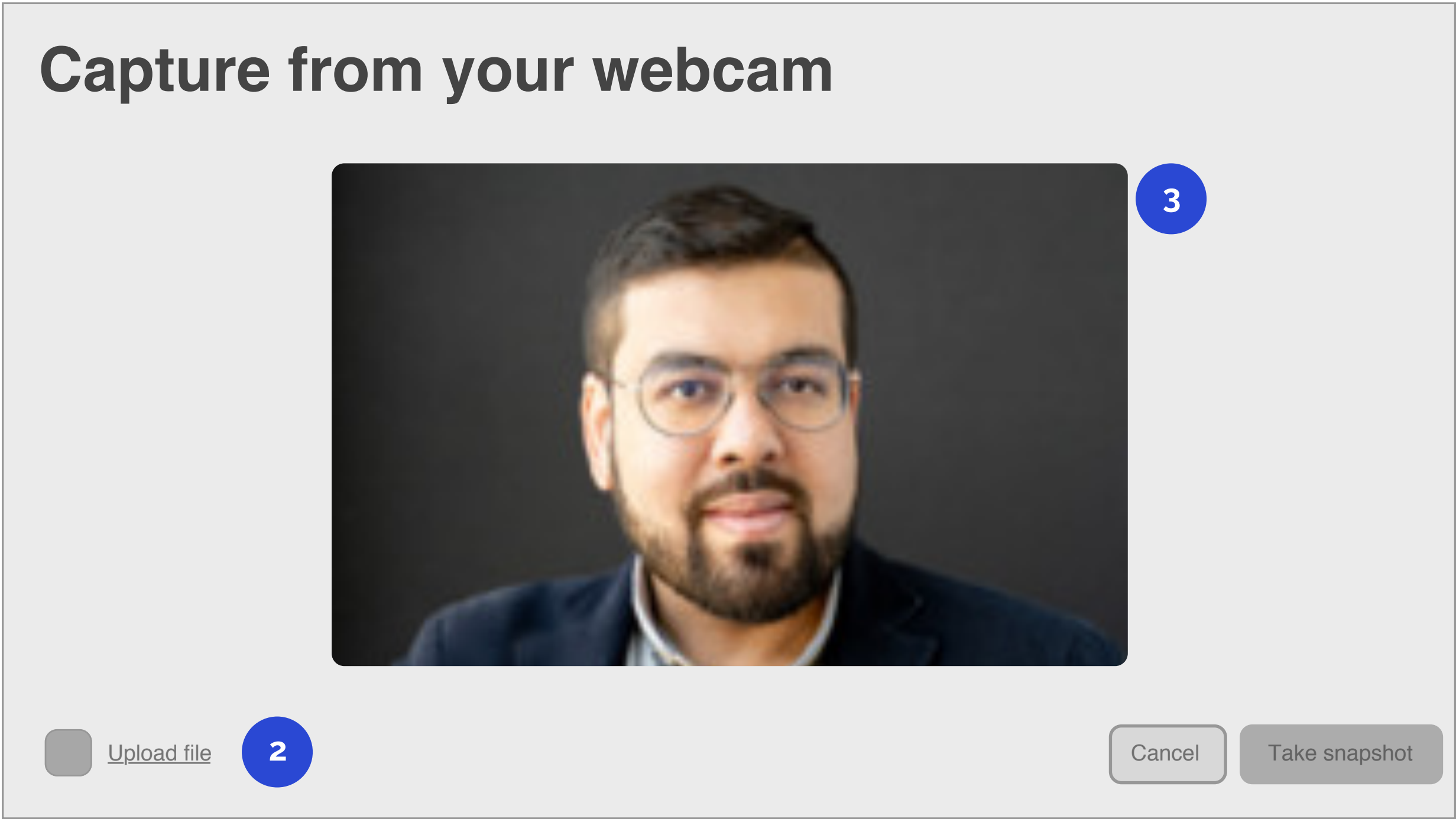
1.2 Add new medical record - With attachments

NOTES

1 Attachments will flow from left to right in rows as they currently do within the app.

2 The dialog box should grow to accommodate additional rows of image attachments.

Add new medical record

Create a medical record for Moharyar Ali

Build a health history

Category

Select ▾

Title

Date of Record (Optional)

Year ▾   Month ▾   Day ▾

Description (Optional)

255 characters left

1

2   Cancel   Create Record