

Research Deliverable

#healthdata, Allscripts

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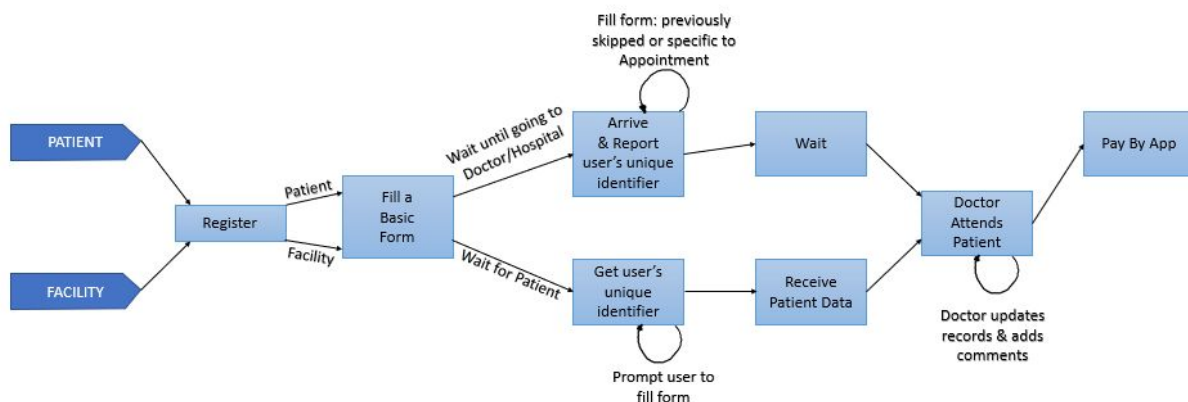
Long term goal:

Our long term goal for this semester's project is to design a way for patients to build a profile to avoid filling out the same forms multiple times. We hope to build an app where patients and facilities (such as hospitals, eye doctors, etc.) can register. Facilities will be prompted to list their address and contact information. Patients will be able to fill out forms they would normally have to fill out upon going to a doctor's appointment (such as insurance, allergies, history, family history, etc). After the patient completes the form they will need a way to capture and share that information with the facility (either electronically or in-person). This would be beneficial to both the providers and the patients.

List of challenges:

- Each hospital has their own preferable style of recording the information.
- Privacy between hospitals/establishments.
- There is a lot of information to record in a patient's profile.
- Facilities need to learn a new software to finish their job. So we should try to make the new app 'similar' to the one they already have.
- Consider how to incorporate this system into the facilities' system.
- Consider someone other than the patient filling out the information (such as a parent)

Experience map:



Expert notes:

We met with 7 representatives that work at Allscripts. Prior to our meeting Allscripts asked us to think about what different problems with healthcare. As a group we thought of communication between the provider and patient, portals, finance/billing, insurance, amongst other ideas. Here is the doc with our pre-meeting ideas. During our meeting with the Allscripts reps, we discussed these ideas:

1. Payment methods

- What am I paying for?
 - In order to figure out what paying for, needed to call..but I prefer to use online because it is faster
- When/how I'm paying?
 - More card payments
- Personal experience
 - Person 1 experience
 - Need more transparency on what paying for
 - Got a bill for "\$50" then later got another for \$54
 - Called to figure out what the different charges were for
 - No one knew for a few different call transfers
 - Eventually someone answered that \$50 was for the hosp. visit and \$54 was for the particular doctor
 - Person 2 experience
 - Last time I didn't know I was being charged until debt collector called
- Decided that the finances of hosp. is a complex system..not 1 to 1
- If we chose this option, we would have to make a lot of assumptions.
 - This being said, we will have to make assumption for any research question we choose to scope it down.
- Other points
 - Focus on transparency?
 - Card payments seem easier

2. AI - automation

- How do you automate using ux
- How can ux help with automation
- Helper vs taking control
- Visualization
 - Of the data for doctors or patients
 - Doctors
 - Results of automated diagnosis: Inferences and confidence measures
 - How drugs are being administered
 - Patient history
 - Patient

- How long been taking medication
- Journey over time
- Sunrise project: connecting to this project of theirs

3. Data Entry Portal

- Lack of proper infrastructure of getting the patient records in
- Re-entering patient information

4. Happiness Balance between provider and patient

- Provider
 - Work/life balance
 - Wellness/burnout
- Patient
 - Communication
 - Repetition
- Happiness shared between provider and patient

5. Telemedicine >> Options for your current position

- Trust
 - I don't know the doc I am seeing
 - How do I know when to go to the doctor?
 - Is the information I am seeing correct?
- Technology: daunting: (for elderly or people from the rural areas)
- Identify persona/ triangulate focus: e.g. elderly, parent, etc.
- Speciality: e.g. chronic patient, etc.
- Balance loads

See the original notes from the meeting on a whiteboard below in [Appendix A](#).

After discussing this information with the Allscripts group, we discussed it as a group since not all of our group members were able to join us. We developed different long term goals separately and then categorically organized them. Then we voted as a group and found our main goal (labeled as our long term goal up above).

Problems/opportunities:

Each person had their own color.

Bold options were self votes.

Asterisks were votes provided by other team members (Each member could mark a maximum of 3 asterisks).

Finance	Automation	Happy balance between providers and patients	Telemedicine	Portal
<p>1. I want to know what I am paying for after I go to the ER or the doctors office.</p> <p>2. I want to make it easier for patients to know what their insurance does for them</p> <p>3. To help users / patients to make decisions regarding their payment methods.</p> <p>4. Provide an option to view a detailed structure for payment.</p>	<p>1. An AI to give advice on the treatment or medicine based on the symptoms. **</p> <p>2. Providing timely alerts for doctors to treat emergency patients or for patients to get alerted when something irregular takes place.</p> <p>3. It would be helpful for doctors and patients to have understandable visualizations wrt drug usage ; overall health etc.</p> <p>4. E-assist for Doctors Scenario: Doctor feeds a patient's data in an app/website, gets an automated diagnosis, and present the confidence measure for each diagnosis visually **</p> <p>5. If there is a authoritative database that I can use it for self-diagnose (because I want to know I am mostly likely getting which disease).</p> <p>6. All hospitals and clinics in a kind of group (e.g. registered in Allscripts) can share the information about patients.*</p> <p>7. Patients can build their profiles to avoid too many times of typing on the portal. ***</p>	<p>1. I want to make it easier for patients to know what was administered at the ER.</p> <p>2. I want to make it easier to for patients to enter in information and only have to record it once.**</p> <p>3. Connecting doctors and balancing the convenient timings (time zones)</p>	<p>1. It would help if the HCP - patient gap were to be reduced by easy information storage, exchange and retrieval and reduce the actual visits</p> <p>2. An online community to let patients with similar disease to share their experiences and feelings.*</p> <p>3. If there is a authoritative database that I can use it for self-diagnose (because I want to know I am mostly likely getting which disease).</p> <p>4. Eye Appointment Scenario: Easier and simpler UI for any user to work with the app/portal</p> <p>5. Connecting doctors and balancing the convenient timings (time zones)</p>	<p>1. I want to know what I am paying for after I go to the ER or the doctors office.</p> <p>2. I want to make it easier to for patients to enter in information and only have to record it once.</p> <p>3. I want to make it easier for patients to know what their insurance does for them</p> <p>4. It would help if the HCP and patient gap were to be reduced by easy information storage, exchange and retrieval and reduce the actual visits</p> <p>5. All hospitals and clinics in a kind of group (e.g. registered in Allscriped) can share the information about patients.</p> <p>6. Patients can build their profiles to avoid too many times of typing on the portal.</p>

Target:

Our decider is Jeri-lynn from Allscripts.

Our target focus area is balancing happiness between the providers and patients by automating monotonous work such as entering information repeatedly. The app will also reduce the time required for such tasks (benefiting both the patients and the providers). The aim is to unify all the medical records of a patients in one repository. This will enable the patients to save time by using the app to provide medical history relevant to the appointment. They can also use the same app for different appointments (such as eye or dental appointment). It will benefit the facilities by providing the medical history of the patient (as recorded by same or other facilities). This way the app can facilitate the relationship between the providers and patients and balance their happiness.

Our target users are patients that are young adults and facilitators. In general the app would be useful by teens, students, young adults, older adults, and elders, however, we wanted to make the scope smaller for this semester project.

We will be creating a persona this next week with the Allscripts team after their workshop on creating personas.

Appendix A

PAYMENT

① PAYMENT Methods

↳ What are I paying for?

→ when & how in paying?

[PP] - TRANSFERENCING

- most used PAYMENTS -
- Eventually had to call
- Later to use online - faster

- Got A BILL FOR "bill"

↳ when later - got another bill sent

↳ "you owe bank"

↳ "LAST TIME I DIDN'T KNOW I WAS BEING CHARGED"

- NOT 1 * 1 - COMPLEX system

- Focus on a problem - MAKE ASSUMPTIONS

② AI - AUTOMATION

- CHANGING
- ↳ HOW DO YOU AUTOMATE
SOME VLS?
- HOW CAN WE HELP w/ AUTOMATION.
- REVERSE VS TAKING CONTROL
- VISUALIZATION OF DATA \rightarrow TIME AND EFFECTIVENESS
 - ↳ ECM - INSIGHTS /
 - ↳ HELP doctor read
 - SPECIFIC TO VISIT
 - DOC VS PT.

DATA ENTRY + LACK OF "MEMORY"

ASKS THE SAME QUESTION - every day

④ PROVIDE BURNOUT
WORK/LIFE BALANCE
PROVIDE WELLNESS
PROGRAMS

→ Communication / CASE PRESENT
- Definition - work and yourself
- Resources

⑤ Telemedicine

- SPECIALTY
- TRiage - low level Dx
- BALANCE LOADS

Ways {

TRUST {

- Pt unsure - "it's" → compare w/ previous
- "Should I do this thing in-person?"
- I don't know who Doc is really
- How do I know who to go to doc?
- Is the information I'm seeing correct?

- Technology? DRIVING

(changing practice rules → changing)

⑥ Results Reexamining

- ↳ Visualization of Data
- Certain aspects have Prominence
- Confidence in Data - Indicator of