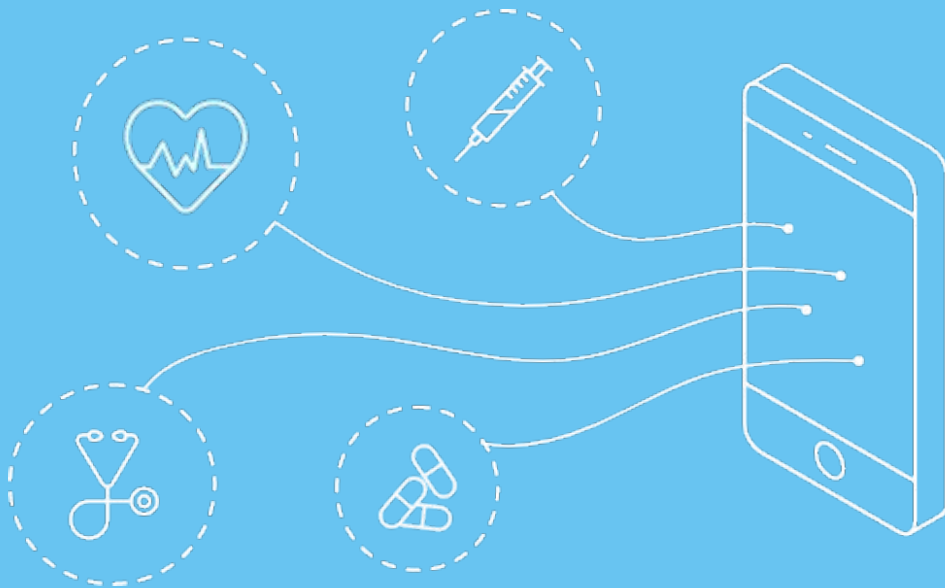


Telehealth in America

Research Study

Tressa Hopkinson
Sarah Callison
Courtney Montrose



Meet the Team

The people with the skills



Courtney Montrose

Experience Designer



Tressa Hopkinson

Project Manager



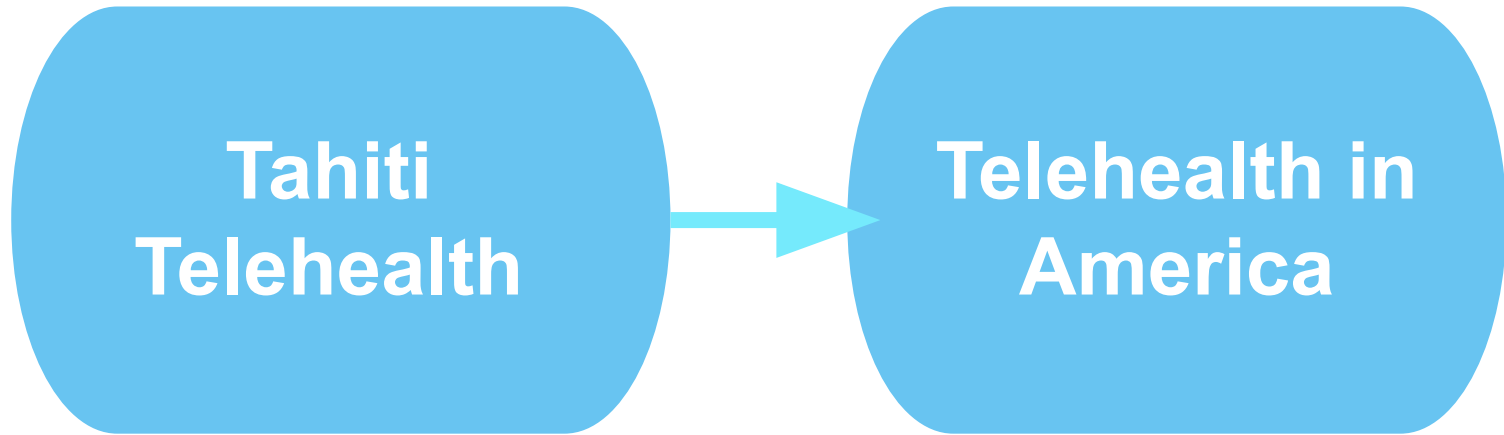
Sarah Callison

Experience Designer



Phase 1

Project Background



Research Stages



Resources

Telehealth

Deep dive into what telehealth is and what digital solutions are currently on the market.

Quantitative Data

Survey

















Recruit participants for a short survey to narrow our focus.

Qualitative Data

Interviews

Based on the survey results, conduct personal interviews.

Current Digital Solutions

							
MDCalc 4.9 stars	Quick Medical Dx & Rx* 4.2 stars	Skyscape Medical Library 4.3 stars	CURRENT Medical Dx & Tx 4.6 stars	Diseases Dictionary* 4.6 stars	Dorland's Illustrated Medical Dictionary* 4.5 stars	Medical Dictionary* 4.3 stars	Prognosis 4.7 stars
							
WikiMed 4.7 stars	Medical Terminology Dictionary* 4.4 stars	Clinical Sense* 4.7 stars	Figure 1 - Medical Images 4.7 stars	MedSchool 4.6 stars	Medical Dictionary By Farlex* 4.5 stars	STATworkUP Ddx Clinic 4.7 stars	UpToDate 4.2 stars

18 Apps



Phase 2

Quantitative Data

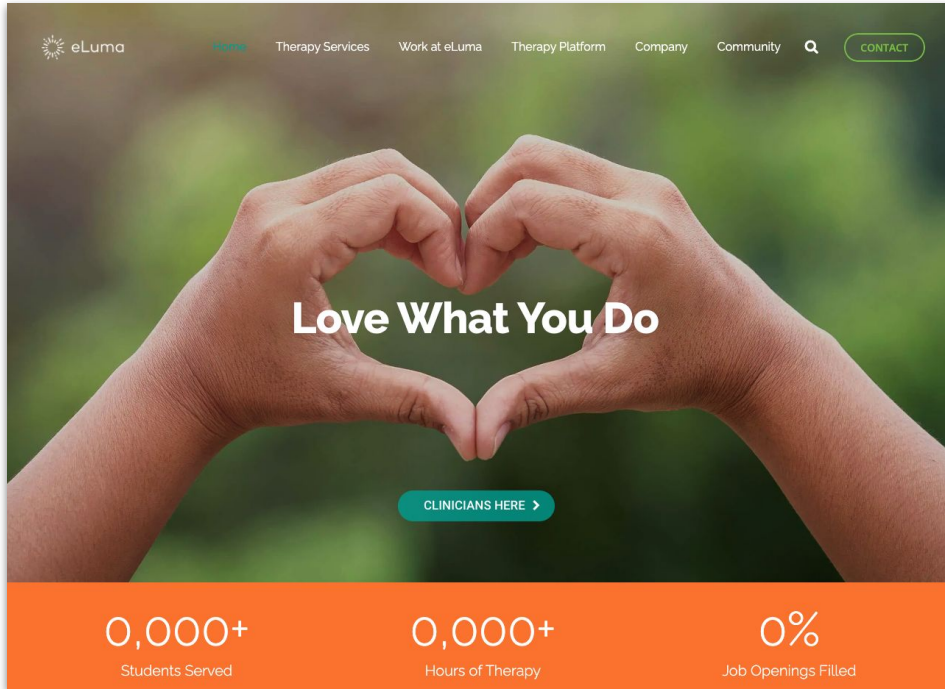
The logo for Qualtrics XM, featuring the word "qualtrics" in a black, lowercase, sans-serif font, followed by "XM" in a smaller, uppercase, sans-serif font. The "X" is blue and the "M" is purple.

qualtrics^{XM}

Survey

[View Survey](#)

eLuma



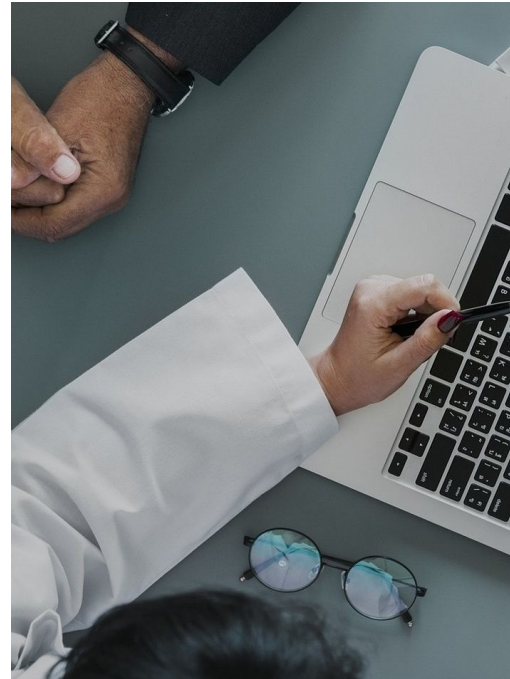
Partner

Access to clinicians

Present findings

Bring in Reinforcements

- Healthcare Administration students
- More specialized
- Workload assistance
- Utilize connections



Survey Results



Analysis

All use on & offline sources

60% Rely on digital solutions

44% No connectivity issues

44% have issues monthly

Most need connectivity to give best level of care



Phase 3

Qualitative Data



<https://www.cameysandoe.com/blog-post/7-tips-for-conducting-a-smooth-virtual-hiring-process>

Interviews

Participants from Survey

Virtual interviews:

- SignUpGenius
- Zoom vs Teams

Interview Insights

Interviewee 1

- Telehealth Speech pathologist
- Utilizes many different applications for treatment
- Sees patients through video chat
- Often loses sound and/or video
- Frustrated with patient onboarding
- Uses cell phone
- Often Googles terms to search her medical resource

Interviewee 2

- Telehealth School psychologist
- Utilizes digital solutions for strategies and community resources
- Uses books/hand charting
- Up-to-date research is important
- Would like to sort research by:
 - Date
 - Source
- Love it to be color coded

Interview Insights

Interviewee 3

- Respiratory therapist
- Utilizes digital solutions daily
- Uses personal cell 90% of the time
- Hospital updates systems nightly leaving system down 2-3 hours
- This requires paper charting
- System lags are the worst
- Googles to narrow focus before using Medical apps

Interviewee 4

- APRN, CNM
- Utilizes digital solutions daily
- Uses a Hospital encrypted phone
- Googles basic info “its faster”
- Uses Siri for spelling (Dyslexic)
- Uses Cellular Data when internet is down
- Used Landlines for consults
- Love to see voice interface

Interview Insights

Interviewee 5

- Floor Nurse / Nurse Educator
- Digital solutions need more visuals
- Internet connection is reliable
- Have to use correct keywords when searching to find results
- Having digital solutions separated into body systems would be helpful
- Older nurses may benefit from searching with voice
- Implement related digital solution links in charting

Interviewee 6

- Healthcare Assistant
- Googles surgeries to learn about them
- When hospital room computers don't work, have to write vitals on paper
- Charting is forgotten about once every shift
- Terminology on charts is too advanced
- The charting on the work phones is not mobile-friendly
- Work phones often disconnect from network
- Doctors don't respond to pages on night shift



Phase 4

Findings

More Research is needed

Providers need to be connected

They rely on digital solutions to provide the best level of care

They are happy with the availability of solutions

Gaps in the way solutions work

- Search features
- Voice integration
- Patient onboarding
- Sortability of resources

Personas



Tanya

Registered Nurse



I could be more efficient at work if I could multi-task and do some of my tasks hands-free.

Age: 47

Status: Married

Location: Austin, TX

RN

Large hospital

System down regularly

Out of school many years

Bio

Tanya graduated with her nursing degree from the University of Texas at Austin in the year 2000. She has been working as a registered nurse at a large hospital in Austin, TX since then. She has four children and has taken time off of work when each child was born. Because she has been out of school longer than others, she doesn't remember specific medical terms and their spelling as well as others do.

Personality



Organized

Innovative

Cheerful

Experienced

As a mom, Tanya is always coming up with new and innovative ways to get her tasks done. She has an optimistic view of life and likes to keep things organized both at home and at work.

Goals

- Find answers to problems as quickly as possible.
- Utilize voice to chart and search within digital solutions

Motivations

Voice integration



Digital solution search-ability



Charting



Internet connection



Frustrations

- When searching for answers within digital solutions, answers are difficult to find if the terms are spelled incorrectly.
- Devices don't work in certain rooms in the hospital.
- The hospital has regular updates, during which the workers must do paper charting.
- The charting across departments is inconsistent.

Devices Utilized

Hospital computer, hospital smartphone, personal smartphone



Lisa

Occupational Therapist



I want to be more organized — it would help me save time.

Age: 35

Status: Married

Location: SLC, UT

Occupational therapist

Hospital

Resources disorganized

Bio

Lisa works as an occupational therapist in a hospital in SLC. She's passionate about improving the lives of those around her. Her facility has many different departments with their own systems for charting. She has dyslexia; it's something she's learned to work with, but it sometimes impacts her speed when searching for solutions.

Personality



Realistic

Cheerful

Thorough

Concerned

Lisa understands that being cheerful makes the day go faster, but that being realistic is essential to her patients' progress. Everything she does at work is centered on her clients.

Goals

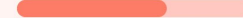
- Organize clinical resources by date, relevance and credibility
- Standardize charting to save time and be consistent across platforms

Motivations

Voice integration



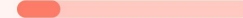
Digital solution search-ability



Charting



Internet connection



Frustrations

- Charting is very inconsistent across departments. It makes reviewing and comparing information more difficult.
- When searching for solutions, many outdated sources appear.
- She sometimes misspells words, impacting her search results.

Devices Utilized

Computer, smartphone

Personas



Katie

Certified Nurse Assistant



It's really important to not have any gaps in my residents' care. That includes the charting.

Age: 20

Status: Single

Location: Bend, OR

CNA In school

Nursing home

Charting info not reported

Bio

Katie is in nursing school and currently working as a CNA in a nursing home. This is her first job in healthcare; she takes it very seriously so she can further her career. She hopes to become an RN within the same facility. She has become very close with the residents there and thinks of them as her family. Katie wants to ensure these last years of their lives are as comfortable as they can be. She isn't one to cut corners.

Personality



Empathetic Teachable Cautious Concerned

Katie has the biggest heart; she would put the needs of every single one of her patients before herself. She is very careful in all that she does. She's also very eager to learn.

Goals

- Provide complete care to the residents – no gaps in care.
- Improve search-ability of digital solutions.

Motivations



Frustrations

- When the internet goes down, the workers must chart on paper. It's common for those paper chartings to never get entered in digitally.
- She usually has to find answers from Google before she can search within the digital solutions.
- There are many gaps in the patients' care.

Devices Utilized

Facility computer, facility iPad



Jennifer

Virtual Therapist



I want to maximize the time with my patients so it's spent helping them instead of providing tech support.

Age: 53

Status: Single

Location: Bismarck, ND

Virtual therapist

Works from home

Technical difficulties

Bio

Jennifer works for a company that provides therapy services through video calls. She has been a licensed therapist for over 20 years, but recently began virtual therapy with the pandemic. Her patients live in different states across the US; they have varying levels of internet connectivity and experience with technology.

Personality



Determined Direct Thorough Experienced

Jennifer doesn't settle; if something isn't up to her standards, she works hard to fix it. She is straightforward and blunt about her thoughts. She has a lot of knowledge to share with others.

Goals

- Have on-boarding for Telehealth visits to minimize technical complications.
- Improve search-ability of digital solutions.

Motivations



Frustrations

- Some patients aren't as technologically savvy; she has to spend time helping them figure things out.
- Sometimes the audio, video, or both will stop working during calls.
- There isn't one great source for finding solutions for her patients. She uses a few different digital solutions.

Devices Utilized

Personal computer, personal smartphone

Meeting with Voice Designer

- Lauren from RAIN
- How voice can help searchability, on-boarding, and charting
- How to create a voice prototype

RAIN



Next Steps

Further UX Research

Patient Experience

To avoid biases and understand the full picture, the patient experience should be researched as well.

Voice Research

Charting vs. Searching

Learn more about voice design and decide which direction to take the project in.

Design Prototype

Voice Bot

Create low- and high-fidelity voice prototypes and conduct testing.