



# Rewiring Texas WIC: Informing the Development of a Chatbot to Strengthen Enrollment in Texas



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## 1. Abstract

### Background

Mirroring national trajectories, participation in Texas WIC has declined incrementally since 2015. In an attempt to mitigate this issue, Texas State University researchers have partnered with Texas WIC to support existing clients and facilitate enrollment of new applicants by developing a user-friendly, Texas WIC Chatbot. The success of any technological interface is predicated upon engaging stakeholders and intended users during the development process, involving a theoretical framework known as User-Centered Design. Soliciting perceptions from WIC staff on optimization of chatbot features is a crucial step in the design process.

### Objective

Assess perceptions of facilitators and barriers among Texas WIC staff regarding user acceptance of a chatbot.

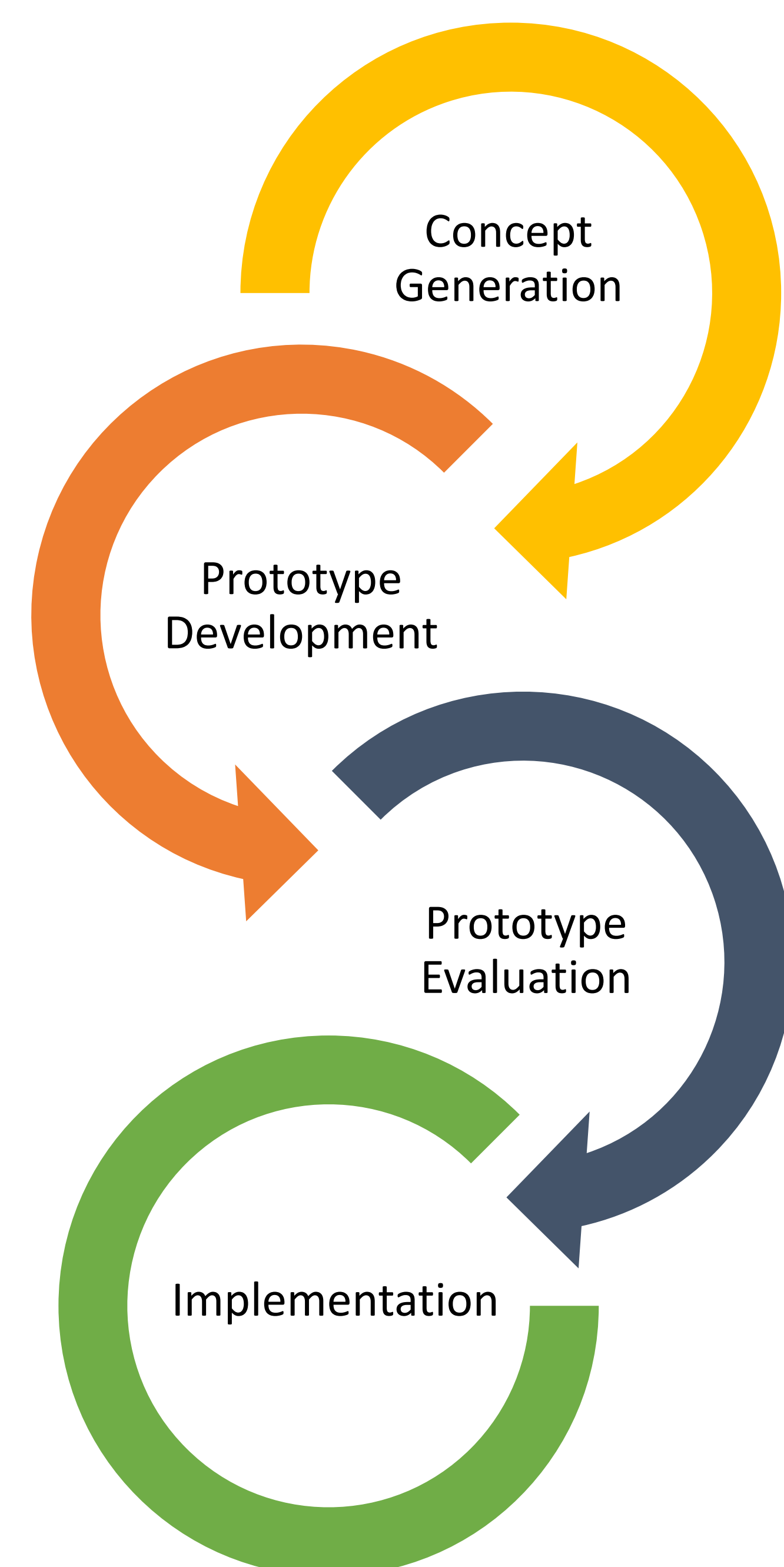
### Study Design, Settings, Participants

Perception of chatbot user acceptance was studied through 8 group interviews, conducted via Zoom. Participants included WIC directors and clinic staff. A semi-structured interview guide was designed to solicit discussion regarding facilitators and barriers to optimal chatbot acceptance and usage among staff and clients. Interviews focused on perceptions of technology among WIC staff and clients.

### Results

Perceived facilitators of chatbot use among staff included: providing adequate training and information regarding the chatbot, a shared plan of chatbot management, and formally promoting benefits of staff chatbot use. Perceived barriers to chatbot use among staff included: lacking general technology knowledge, lack of experience with chatbots or similar technologies, and older age. Perceptions of client facilitators to chatbot acceptance, included: familiarity with chatbots or similar technologies, perceptions of low time/ effort investment, and a successful initial chatbot use. Finally, perceptions of client barriers to chatbot acceptance, included: anxiety towards chatbot/technology use, demographically/culturally insensitive technology, and inability of chatbot to perform touted features

## 2. User Centered Design



## 3. Group Interview Methods

1. Recruited WIC staff via email invitation from a WIC communication specialist.
2. Staff who agreed to participate were sent a pre-interview survey.
3. Staff were informed of topics one day before interviews.
4. Interviews conducted via Zoom.
5. Moderator utilized a semi-structured interview guide to probe for **staff perceptions** regarding facilitators and barriers to optimal functionality, implementation, and long-term adoption of a chatbot.
6. Interviews were recorded and transcribed.
7. Classic analysis strategy was used to determine emergent themes.

## 4. Demographics

	Directors (n=12)	Front Line (n=13)
<b>Age (years)</b>		
< 30	3	2
31-50	9	6
> 51	1	4
<b>Race/Ethnicity</b>		
Hispanic, Latinx	6	5
White, non-Hispanic	6	6
Black, non-Hispanic	1	1
<b>Education</b>		
High School/GED	1	2
Some college/Bachelor's	9	8
Master's	3	3
<b>Years with WIC</b>		
2 or less	2	1
2-6	9	8
6+	2	3
<b>Role</b>		
Administrative/Clerical	5	5
Nutritionist	0	2
Management	7	2
Other	1	3

## 5. Perspectives on Staff Chatbot Use

- Training** "I think there would just need to be some good training for our staff too, just so we know that, so they fully understand how it works and if it involves any other work on their part." - *Director*
- Maintenance** "Would it require kind of like some internal work on our side, as far as IT and getting it set up within our local agency? I would have a question and I know staff would have a question about that as well." - *Director*
- Promotion** "It's already been announced, it's been advertised. I guess it's totally a WIC thing, so WIC is going to have to advertise somehow, and that is how I would promote it locally." - *Front Line*
- Low technology knowledge** "No. I'm not tech savvy. I would never think to go online and (use a chatbot)." - *Front Line*
- Older age** "I think this is true for a lot of staff across the State. A lot of our staff is very old school, and like our older clients, they're not super comfortable with technology." - *Front Line*

## 6. Perspectives on Client Chatbot Use

- Technology Familiarity** "...a lot more people now reach out through social media or through emails. So if you get a Chatbot that would be even better... because a lot of them just like to text." - *Front Line*
- Low time/effort investment** "...if (the chatbot) is very user-friendly to where they can just click here and get an appointment, it might be easy for them to use" - *Front Line*
- Successful first use** "...if they got the information wrong one time, but two times, they are never going to want to use it again" - *Director*
- Technology Anxiety** "General stuff I think I'm kind of good with it, but as far as appointments and things like that, I kind of feel like the Chatbot should be like, 'Here is the phone number or here is the email, you could email into the clinic and get that appointment.'" - *Front Line*
- Cultural Insensitivity** "...our clients come from lots of different places and speak different languages and some of this...may not be at all appropriate." - *Director*
- Performance Issues** "...if (clients) miss an appointment and they try to reschedule, I would hate for it to double book. I could see that being a problem..." - *Front Line*

## 7. Conclusion and Next Steps

### Conclusions

- In general, staff expressed that:
  - A chatbot would be accepted by staff and clients.
  - Barriers to chatbot acceptance and usage may be mitigated by providing adequate training and information.
- Due to variation in responses, researchers determined that deeper investigation regarding perceptions of both staff and clients is needed.
- A mixed-methods approach may strengthen understanding.

### Next Steps

- Administer a survey to WIC staff regarding understanding, desired features, and potential management of a WIC chatbot.
- Administer a survey to clients regarding perceived usefulness and ease of use of a chatbot as well as digital literacy and experience with related technologies.

## 8. References

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