

# Technology & **Supporting Recovery** from Substance Use Disorders

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# About Me

University of  
Maryland

Georgia  
Tech

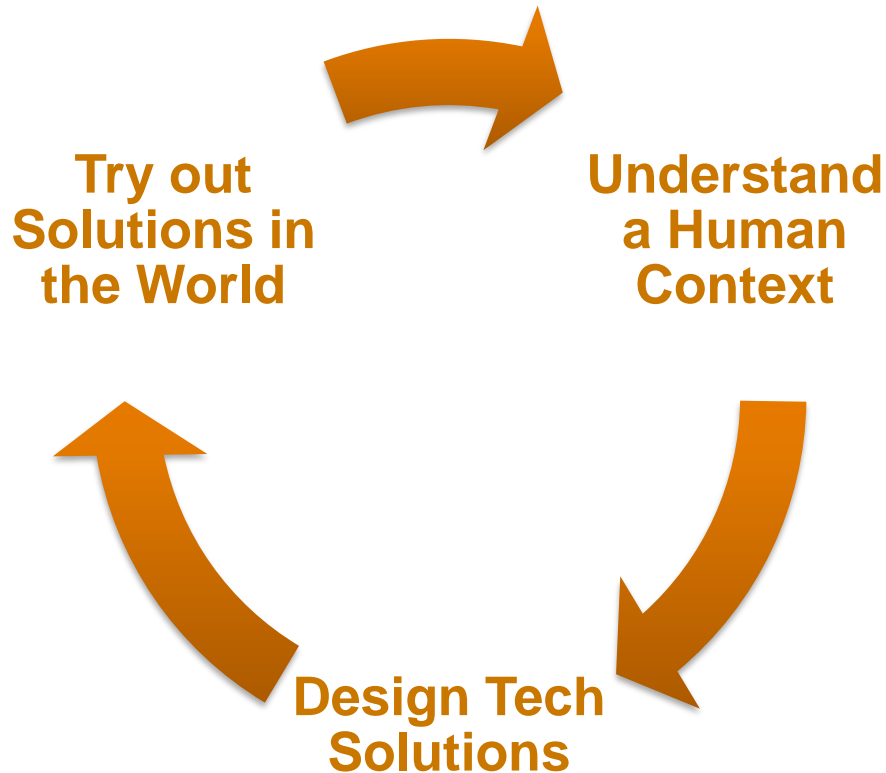
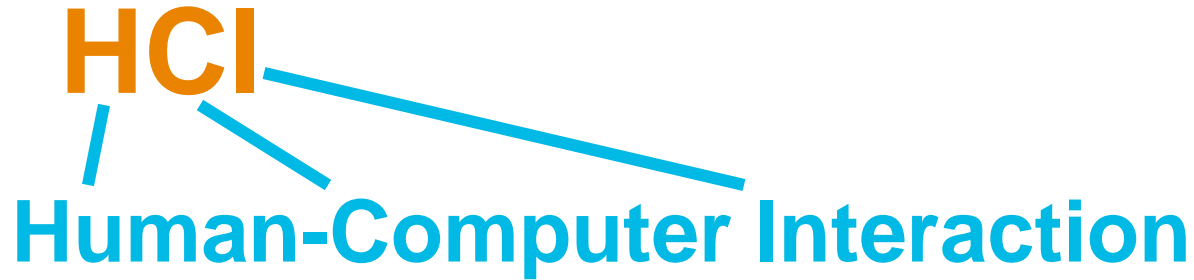
AT&T Labs  
Research

University  
of  
Minnesota



# HCI

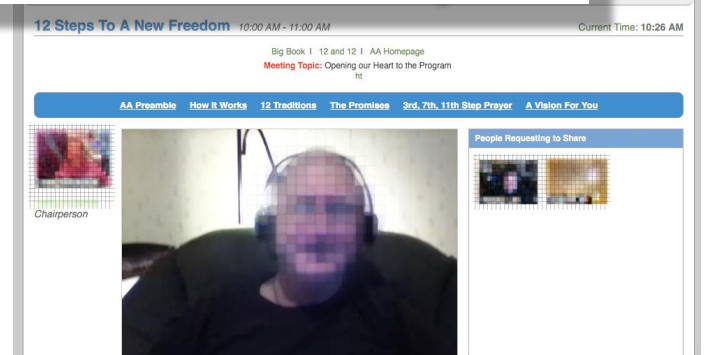
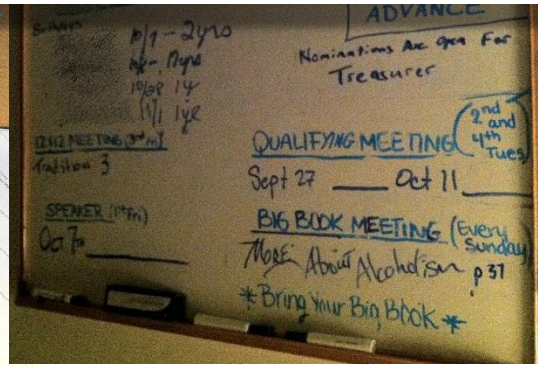
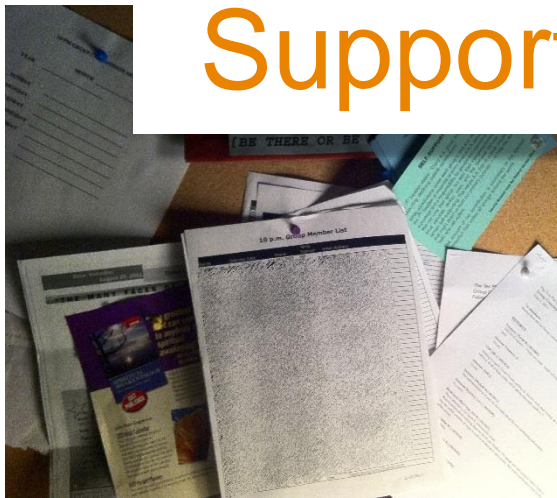
## Human-Computer Interaction



# Overview of My Work



## Designing Technology to Support Human Relationships



# Outline

- » Introduction to my work and HCI
- » What **Current Tech** Is out There for Recovery?
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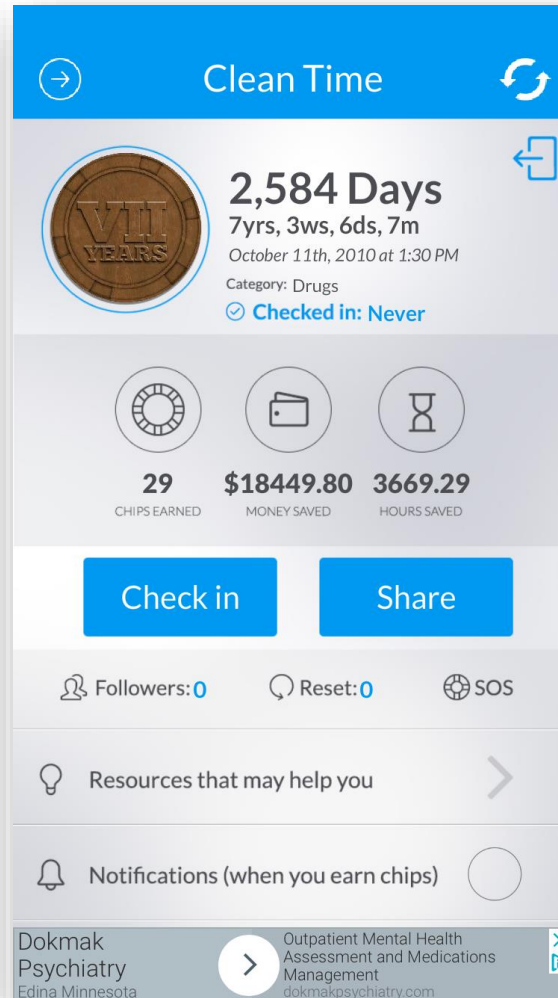
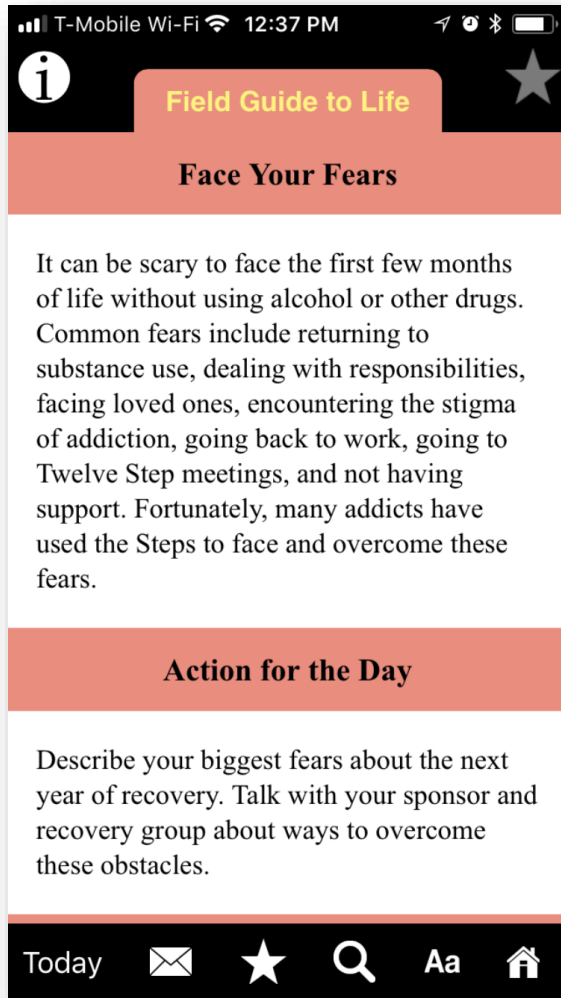
# Current Technologies: Dedicated Websites

The screenshot shows the homepage of the Narcotics Anonymous Minnesota Region website. The header includes the organization's name and a quote: "I will open my eyes to the possibilities before me. My potential is as limitless and as powerful as the God of my understanding. Today, I will act on that potential." Below the header is a navigation bar with links: Home, New to NA, Find a Meeting, Helpline, For Professionals, NA Events, and For Members. A sidebar on the left lists various services like Speaker Directory, Help Wanted, Local Services, Calendar, Contact Us, Contribute, Help, Literature Store UMSO, Meeting Lists, MNNAC Convention, More Cool Stuff, Minnesota MNRSC, and World Services NAWs. The main content area features a map of Minnesota with search filters: "Find Meetings Near Me", "Find Meetings Near Me Later Today", and "Find Meetings Near Me Tomorrow". A text overlay on the map says "Search By Text Instead of Map".

The screenshot shows the homepage of the thefix website, which focuses on addiction and recovery. The header features the logo "thefix" with the tagline "addiction and recovery, straight up". Below the header is a navigation bar with links: NEWS, FEATURES, LIVING SOBER, BLOGS, READER FORUM, ASK AN EXPERT, WRITE YOUR STORY, HOW TO, and ABOUT US. A search bar is located below the navigation bar. The main content area displays a grid of images of people's faces, with a text overlay that reads: "Narcotics Anonymous Minnesota Region: 'Narcotics Party' Hysteria Puts a Value on Drug Users' Lives".

The screenshot shows the homepage of the InTheRooms.com website, which is a social network for people in recovery. The header includes the website's name and a navigation bar with links: Home, Fellowships, Groups, Find People, Chat, Meetings, Directory, and More... A sidebar on the right lists various services like Live Video Meetings, Birthdays & Anniversaries, and Anniversaries Today. The main content area features a large banner for "Safe, Secure & Healthy Detox" with the phone number "844-55-DETOX" and the website "atriumdetox.com". Below the banner are buttons for "Update Status", "Share a Picture", and "Post a Video". A section titled "Live Video Meeting" shows "On Air Now" status for "Sobriety Tuesdays (ALCOHOLICS ANONYMOUS) 11:00AM" and "LifeRing (LIFERING) 11:00AM". A message from InTheRooms.com is displayed, stating "LifeRing Meeting Today at Noon ET!".

# Current Technologies: Dedicated Apps





# Current Technologies: Adapting Tech

The screenshot shows the Grouplens mobile app interface. At the top, there is a bronze bowl icon and a '+ person' icon. Below this, it says '286,566 meditations today' and '2,493 meditating now'. A world map is displayed with numerous black dots indicating meditation locations. Below the map, there is a 'Friends' section with a right arrow. Further down, it shows 'Minneapolis, MN' and a post from 'Chris is meditating to Quick Confidence' with a profile picture and a timestamp '12 mins left in Plymouth, MN, USA'. At the bottom, there is a navigation bar with icons for home, headphones, a clock, a grid, and a person.

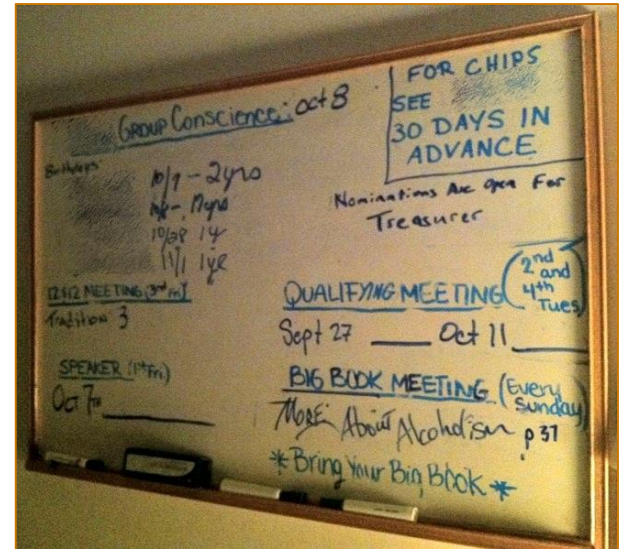
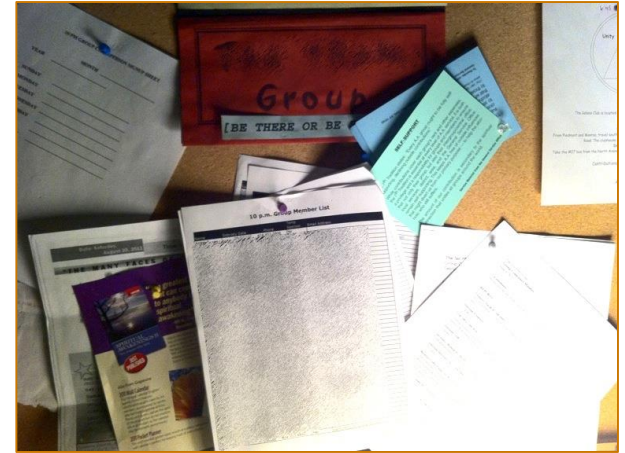
The screenshot shows a Facebook page for a support group. The top navigation bar includes the name 'Lana', 'Home', and icons for friends, messages, and a search icon. The main header image shows a silhouette of a person helping another person climb a rock. Below the image, there are buttons for 'Joined', 'Notifications', 'Share', and a menu icon. The main content area has a 'Write Post' section with options for 'Add Photo/Video', 'Live Video', and 'More'. Below this, there are buttons for 'Photo/Video', 'Poll', 'Feeling/Activ...', and a menu icon. The 'RECENT ACTIVITY' section shows a post with the text: 'In the 12 & 12, third tradition. A man wants to join AA but he has another addiction even worse stigmatized than alcoholism. What is his other addiction? This question is for y'all!'. On the right side, there is an 'ADD MEMBERS' section with a search bar and a list of 'MEMBERS' (45,971 Members). Below this, there is a 'SUGGESTED MEMBERS' section with 'Add Member' buttons. At the bottom, there is a 'DESCRIPTION' section that says 'This is for people recovering or have recovered'.

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# Methods

- » 6 months of participatory observation:
  - 132 open AA and NA meetings
  - 18 organization service meetings
  - Documented artifacts and current technologies used
- » In-depth interviews
  - 12 recovering addicts and alcoholics
  - 2–28 years of continuous recovery



# Findings: Technology Use Is Still Contentious!

*“Recovery has dealt with shifting dynamics since its inception ... introduction of technology is nothing more than that same **shifting dynamic** ... Or, you can choose to take the other side of the argument that technology is breaking traditions and the traditions of NA are sacred and you will have nothing to do with it.”*

# Findings: Main Concerns!

- » Can **anonymity** as a spiritual principle be preserved online?
  - Protect the individual and the program
  - Resistance to persistent identity
- » Will technology **exclude** people from recovery?
- » Is it possible to **really connect** online? Will it replace face-to-face contact?
  - Concerns about building consensus
  - Face-to-face contact and touch are important
  - Putting in the effort is part of recovery

# Findings: Main Concerns!

- » Can **anonymity** as a spiritual principle be preserved online?
  - Protect the individual and the program
  - Resistance to persistent identity
- » Will technology
- » Is it possible to face contact?
  - Concerns about building
  - Face-to-face contact and touch are important
  - Putting in the effort is part of recovery

*“When I go to a meeting, there is the opportunity to see and be seen, be a part of a fellowship ... I go through a day without touching anyone, but then you go to a meeting and you get to hold people’s hands. That’s **real** recovery.”*



Svetlana Yarosh. 2013. *Shifting Dynamics or Breaking Sacred Traditions?: The Role of Technology in Twelve-step Fellowships*. CHI, ACM, 3413–3422.

<http://doi.org/10.1145/2470654.2466468>

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# Methods

- » **Questionnaire** distributed on InTheRooms.com (N = 285)
  - Demographics and recovery background
  - Modified Alcoholics Anonymous Involvement scale
  - Experience in online / offline meetings
  - Perceptions of privacy and anonymity
- » **Interviews** with volunteers from questionnaire (N = 14)
- » **Quantitative analysis** of 28,490 active profiles

# What Is an Online Meeting?

The screenshot displays the 'InTheRooms Video Meeting Clubhouse' interface. At the top, the meeting title 'Expect A Miracle' is shown with a duration of '1:00 AM - 2:00 AM' and the 'Current Time: 1:01 AM'. Below this, a navigation bar includes links such as 'AA Preamble', 'How It Works', '12 Traditions', 'The Promises', '3rd, 7th, 11th Step Prayer', and 'A Vision For You'. The main area features a large video feed of the 'Chairperson' and a 'Queue of attendees requesting to share' on the right. At the bottom, there is a 'List of audience attendees' and a 'virtual donation basket' with a 'Donate' button. Annotations with red boxes and lines point to these specific features.

Meeting name and duration (shows local time)

Links to meeting readings

Chairperson's video feed

Turning on the camera lets the user join the sharing queue

Video and audio of the currently sharing attendee

Queue of attendees requesting to share. Their video (but not audio) is shared in the thumbnail.

A virtual donation basket

List of audience attendees. The audience sees and hears the sharing member.

# Who Attends Online Meetings?

Offline Only  
Average Attendee  
(n = 64)



49 years old  
Woman (68%)  
12 years in recovery  
15 meetings/month

Online Only  
Average Attendee  
(n = 43)



56 years old  
Woman (65%)  
8 years in recovery  
19 meetings/month

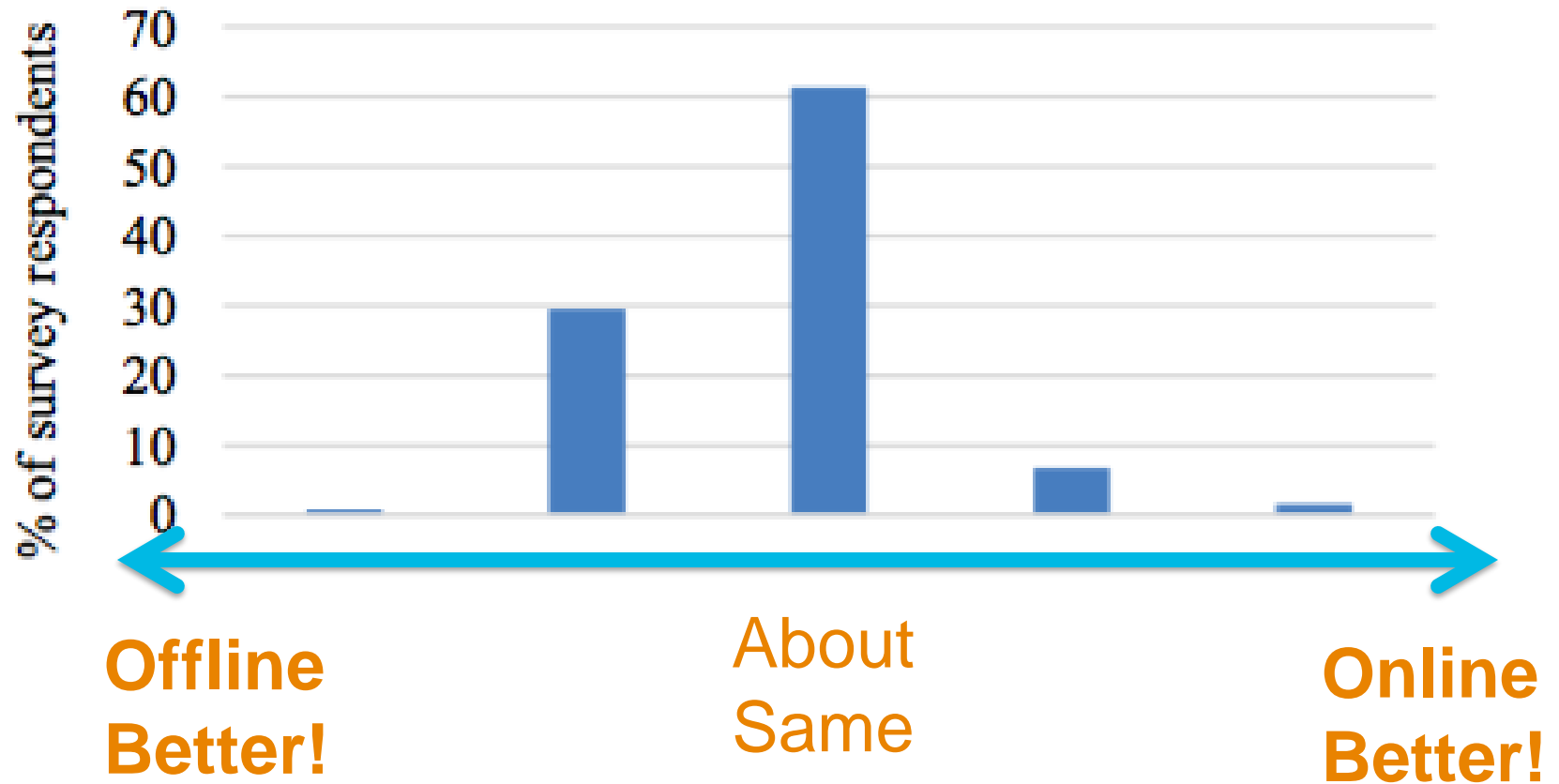
Both Types  
Average Attendee  
(n = 148)



57 years old  
Woman (57%)  
8 years in recovery  
27 meetings/month

Created by Stephane Thomas  
from Noun Project

# Are Online Meetings Helpful?





# Are Online Meetings Helpful?

*“...you get the ability to hear from people from east to west coast, all over the world, different perspectives about the program as it is in different places—the variety of experience, strength, and hope is far greater.”*

*“To me that physical contact is really really important. It makes me feel human.”*

**YES!**

**NO!**

*“...a combination of the [online and offline] really is the best, then you get the best of both worlds.”*

Sabirat Rubya and Svetlana Yarosh. 2017. ***Video-Mediated Peer Support in an Online Community for Recovery from Substance Use Disorders.*** CSCW, ACM, 1454–1469.

<https://doi.org/10.1145/2998181.2998246>

# What “Anonymity-Busting” Info Do People Share Online?

## » First name? 15.8%

- Probably real first names

## » Last name? 1.3%

- Probably not real last names even when shared

## » Photo that shows a face? 22.6%

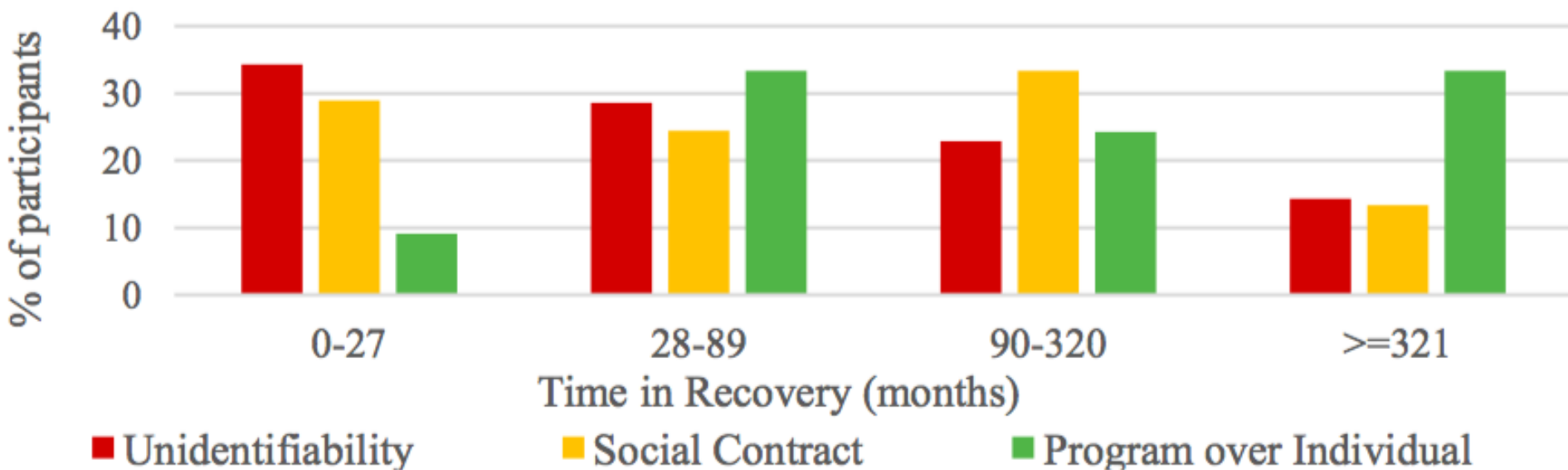
# Paradox of “Anonymity”

Anonymity (in Computing)  $\neq$  Anonymity (in Recovery)

# The Three Aspects of Anonymity

- » **Unidentifiability** – control over disclosure of name & recovery status
- » **Social Contract** – “what happens in meetings, stays in meetings”
- » **Program over Individual** – humility, equality, protecting the program

# Unidentifiability Less Important With More Recovery Time





Sabirat Rubya, and Svetlana Yarosh. ***Interpretations of Online Anonymity in Alcoholics Anonymous and Narcotics Anonymous***. *PACM on Human-Computer Interaction*, 1, 2, Article 91 (November 2017).

<https://doi.org/10.1145/3134726>

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# Future Tech: Supporting Existing Practices

## » Enhance what's already working!

- Meetings
- Sponsorship
- Service and Peer-Support

Meeting Title	Location	Address	Day	Time	Fellowship
<a href="#">Saint Christophers Episcopal Church</a>	<a href="#">Saint Christophers Episcopal Church</a>	2300 Hamline Avenue North Roseville, MN 55113	TUESDAY	10:00 AM	Overeaters Anonymous
<a href="#">St Christopher's Episcopal Church</a>	<a href="#">St Christopher's Episcopal Church</a>	2300 North Hamline Avenue Roseville, MN 55113	SATURDAY	8:00 AM	Overeaters Anonymous
<a href="#">Falcon Heights United Church Of Christ</a>	<a href="#">Falcon Heights United Church Of Christ</a>	1795 Holton St N Falcon Heights, MN 55113	SATURDAY	8:00 AM	Overeaters Anonymous
<a href="#">Presbyterian Church Of The Way</a>	<a href="#">Presbyterian Church Of The Way</a>	3382 N Lexington Ave Shoreview, MN 55126	TUESDAY	7:00 PM	Overeaters Anonymous
<a href="#">Twenty-Four Hour Group</a>	<a href="#">Nativity Lutheran Church-South Parking Lot/Door 2</a>	3312 Silver Lake Rd Minneapolis, Northeast, 55418	TUESDAY	7:15 PM	Alcoholics Anonymous
<a href="#">the Firing Line</a>	<a href="#">Knox Presbyterian Church</a>	1536 Minnehaha Avenue West saint paul, MN 55104	SUNDAY	5:00 PM	Alcoholics Anonymous

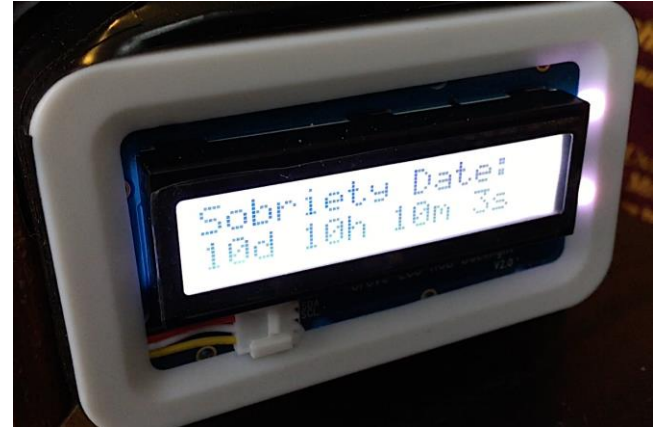
# Future Tech: Expanding Access

- » Helping those who can't get to help:
  - Jails, hospitals, & institutions
  - Limited mobility & disabilities
- » In-the-moment help networks & tools

# Future Tech: Beyond a Screen

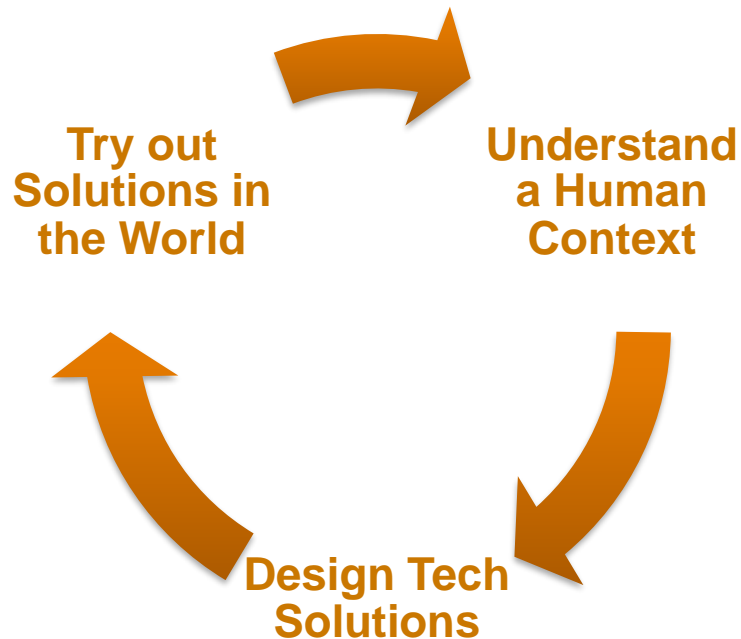
» Recovery devices that live in the world with you:

- Wearables
- Smart appliances



# Future Tech: ???

» You and your clients can have a say!



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# Talking Points for Patients

- » Technology is just another place / community / tool:
  - Is it **safe**?
  - Is its **primary purpose** compatible with recovery?
  - Is there **value gained**?
  - Is it **replacing something** of greater value?

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