

activating public landscapes

amy bickerton
matthew morosky
jenny schweers
jesse venticinque



basic interaction design
spring 2010

research

territory
inspiration
target selection
audience needs

research

synthesis

design

REPORT

- stories of fictional users having problems

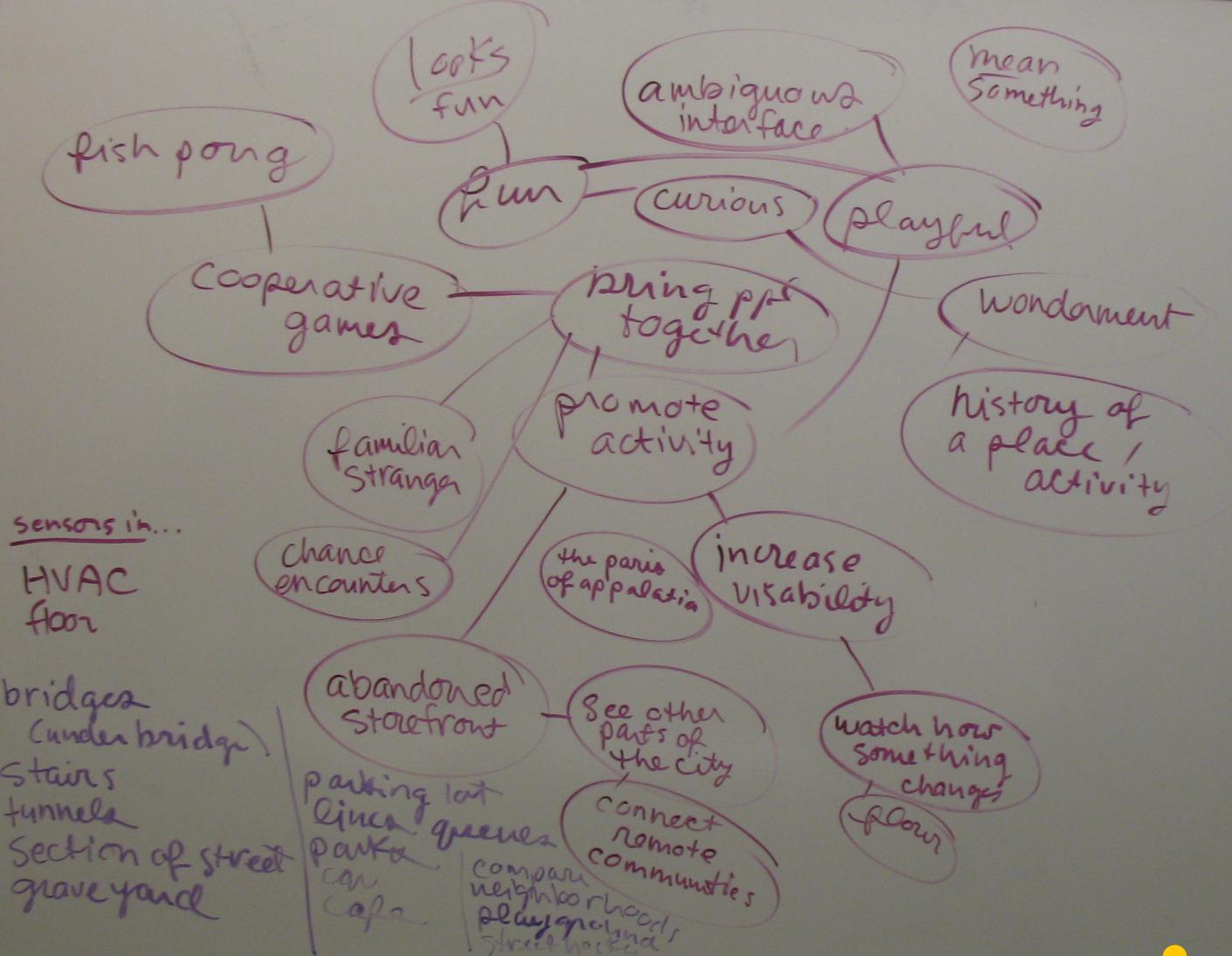
TODO

↳ competition
 ↳ make n.
 ↳ add 1
 ↳ check for
 what's be

spective
eds/values

z
z
researchers'

rg.
researchers
mbrella
ts for
of AIR's research
program areas



research

synthesis

design

USE THE EXCEL! (format:

REPORT

- stories of fictional users having problems

TODO

competition
 ↳ make one
 ↳ add 1
 ↳ check for what's been done

spective
eds/values

z
z
researchers'

rg.
researchers
mbrella
ts for
of AIR's research
program areas



territory

research

synthesis

design

USE THE EXCEL! (format:

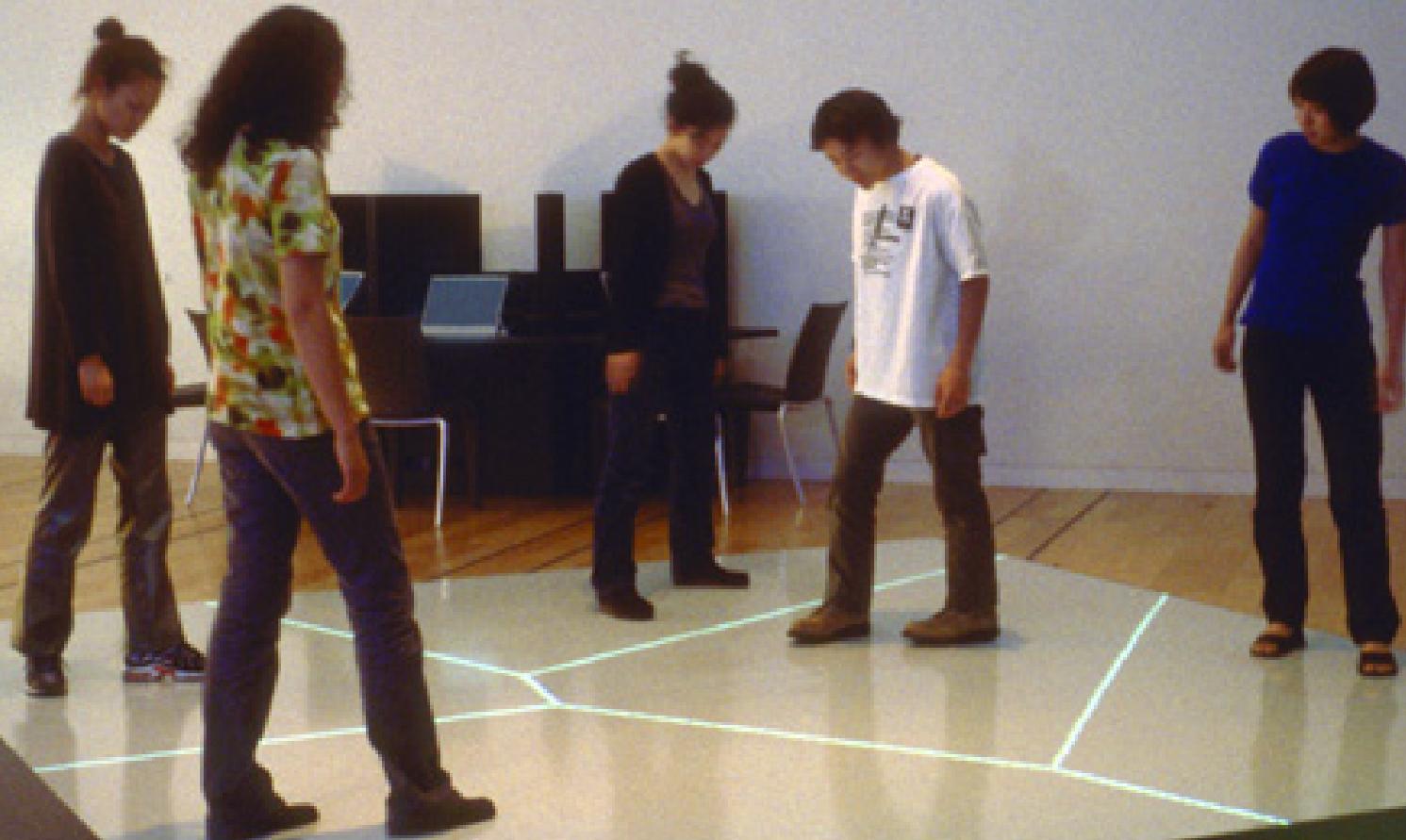
activities		interaction goals	emotions	
locations	cooperative games		fun	curious
bridges	ambiguous interface	bring people together: alleviate urban alienation; the familiar stranger	play	sensors
stairs	chance encounters	promote activity: fight boredom and loneliness;	meaningful	connect with existing phone sensors
tunnels			wonderment	environmental—uv, air, proximity, moisture
street		increase visibility: if the street looks interesting, so does the city; people	awe	human motion, density, activity, cycles,
parking lot				brainwaves, breathing, body sensing
queue		show different perspectives: find common ground; display the history		
park				
cafe				
playground				

territory

research

synthesis

design



inspiration

research

synthesis

design

Design Principles of Social Immersive Media

Scott S. Snibbe and Hayes S. Raffle

Engage with natural behavior, not GUI techniques

Guidance from cinematic tradition

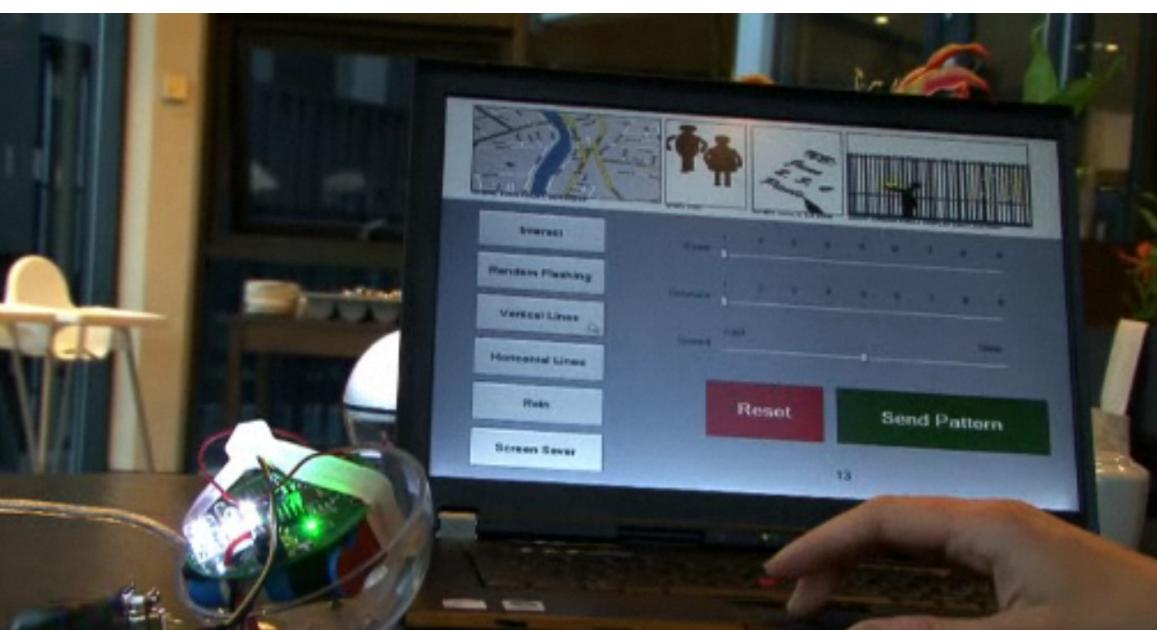
Engage the body first, the mind later

inspiration

research

synthesis

design



liberated pixels

*blurs boundary between
lighting & displays
applied to existing
public surfaces*

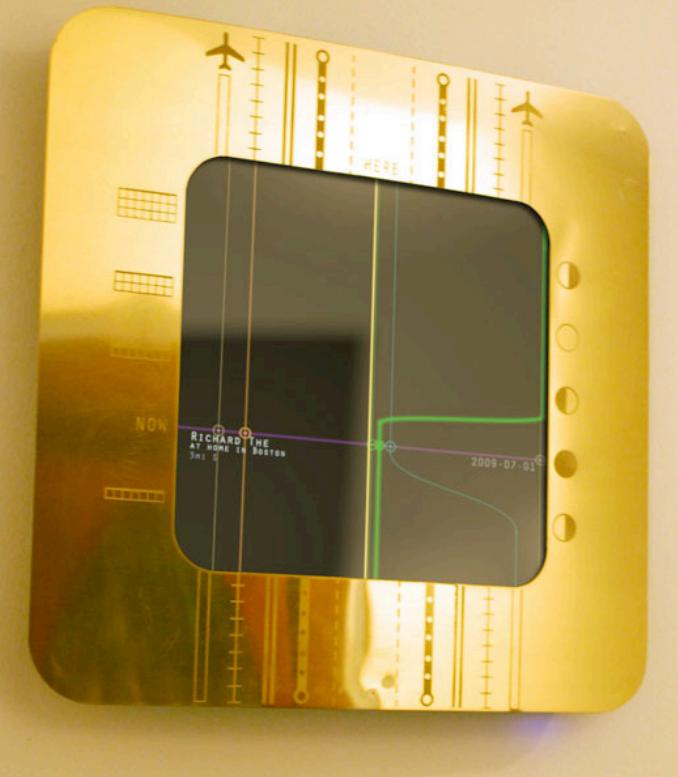
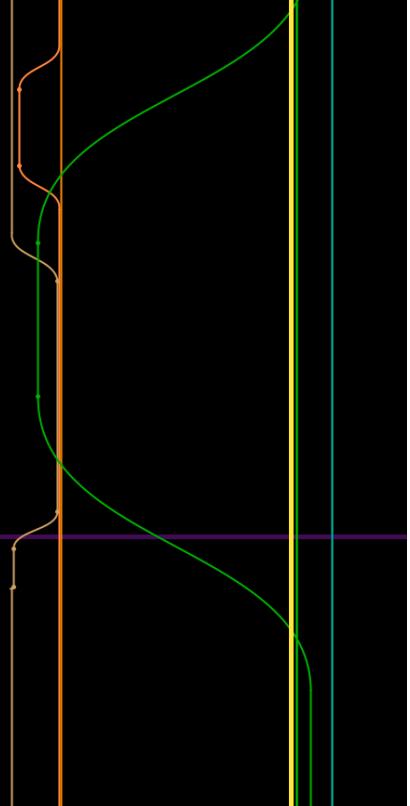
cities.media.mit.edu

inspiration

research

synthesis

design



proximeter

*tracks and charts
proximity of social cloud
in an ambient display*

*reads social network feeds
abstracts these into a
glanceable pattern of paths*

eco.media.mit.edu/proximeter

inspiration

research

synthesis

design



under scan

*interactive video art
for public space*

*passers-by are detected,
which activates video
projected in their shadow*

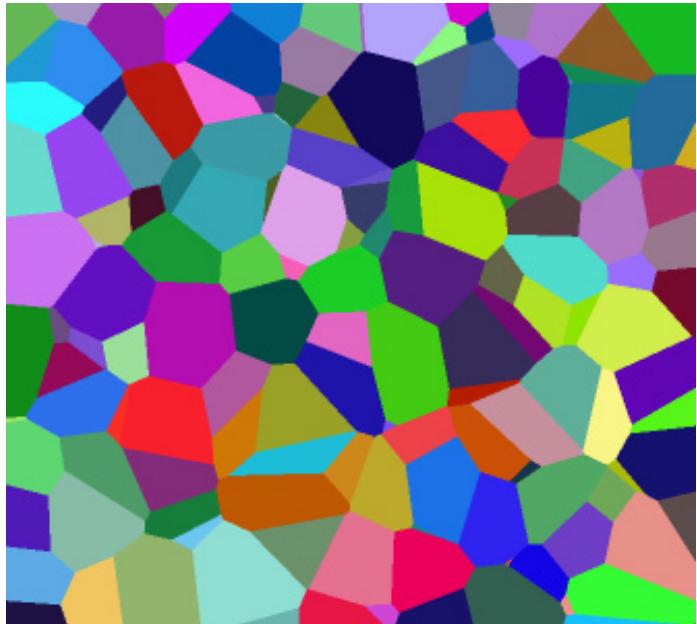
www.lozano-hemmer.com

inspiration

research

synthesis

design



boundary functions

*lines projected onto the floor
segmenting each person in the
gallery from one another
as each person moves,
the lines change*

snibbe.com/scott/bf

inspiration

research

synthesis

design

A wide-angle photograph of a large, open grassy area, likely a university campus. In the foreground, there are numerous young trees with thin trunks and dense green foliage. The background features a large, classical-style building with light-colored stone walls and multiple windows. The sky is clear and blue.

target selection

research

synthesis

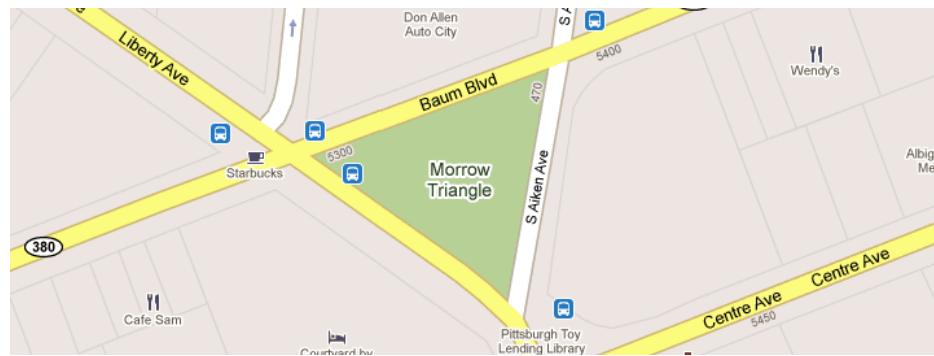
design



morrow triangle

wwii memorial & park

*intersection of shadyside,
east liberty, & bloomfield;
900 ft perimeter
3 benches, 3 paths*



target selection

research

synthesis

design



morrow triangle activity observation

*church, hotel, apartments,
hospital, residential*

2 bus stops (77a, 77, 86a)

target selection

research

synthesis

design



morrow triangle on-site interviews

*“it’s never used.
this could be a place for
social messages. give some-
one a bullhorn, we could
talk about health care.”*

*“as a new person, i could
use something to help orient
me to the area.”*

*“it could be a place for self-
reflection... people go around
with such depth inside, but
they never touch it.”*

target selection

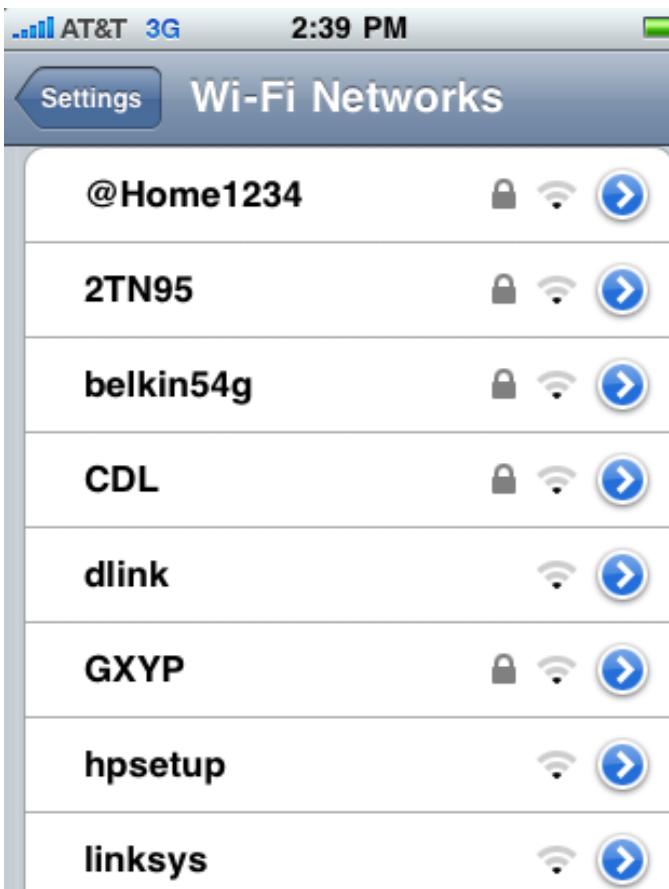
research

synthesis

design



morrow triangle
sensor readings



target selection

research

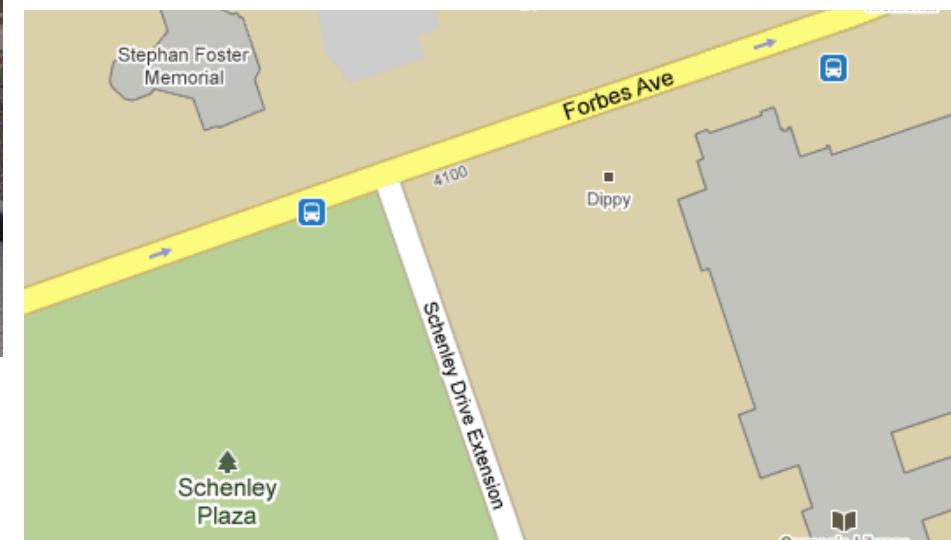
synthesis

design



stephen foster monument

*pitt/cmu border
2 bus stops
200ft perimeter
5 benches, 4 paths*



target selection

research

synthesis

design



stephen foster monument
activity observation

carnegie library
museums
cathedral of learning
schenley plaza
dippy the dinosaur

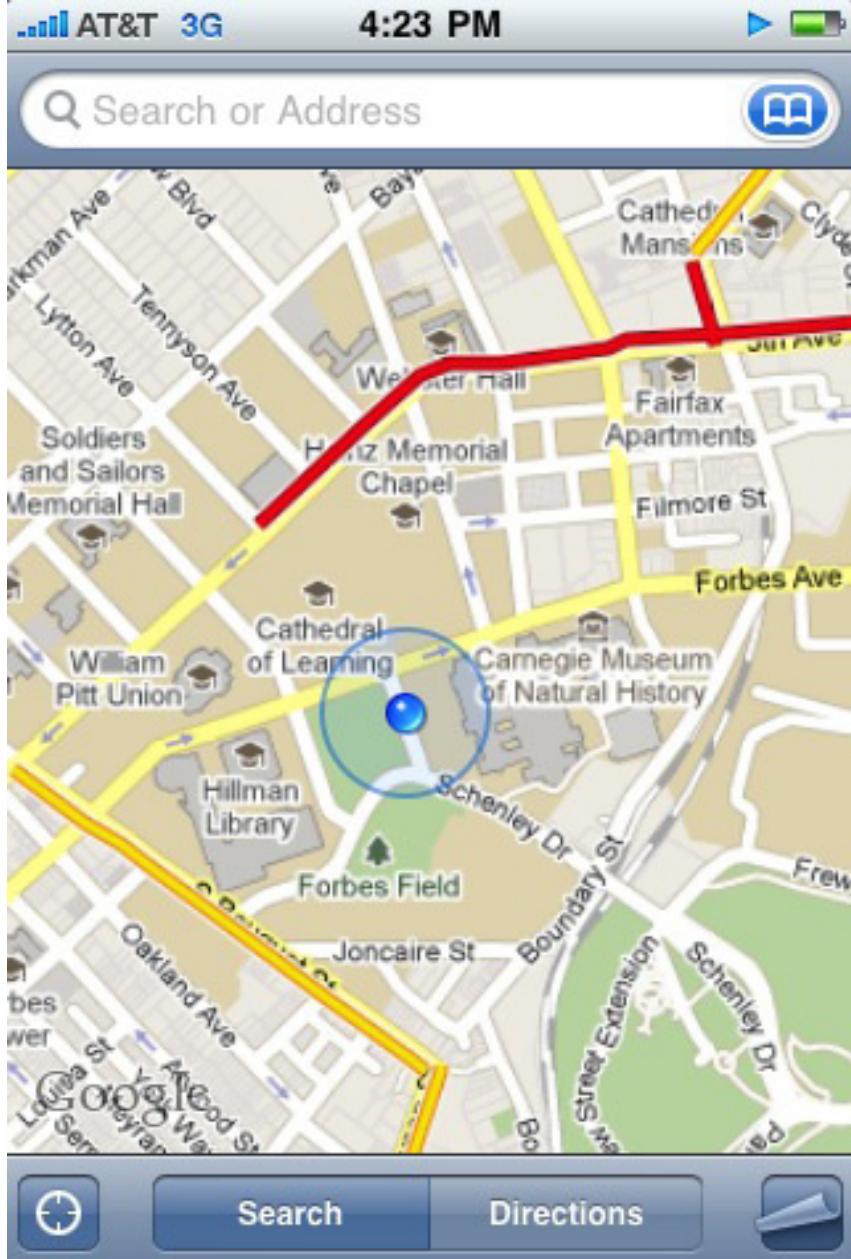


target selection

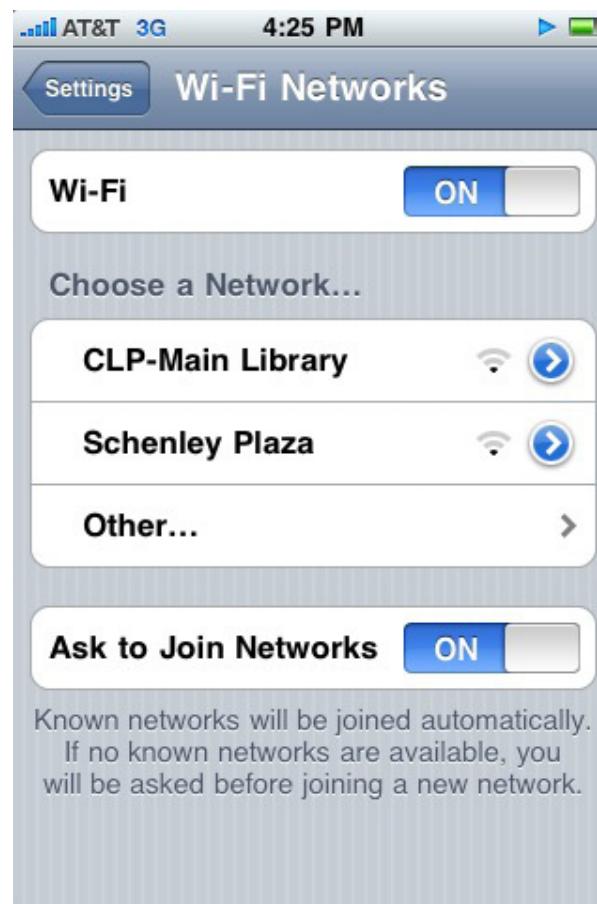
research

synthesis

design



stephen foster monument sensor readings



target selection

research

synthesis

design



stephen foster monument on-site interviews

*missed opportunities to
engage in conversation
with strangers*



target selection

research

synthesis

design

emotional needs

alleviate loneliness

functional needs

*share ideas and
learn from others*

social needs

*broadcast openness,
bridge urban alienation,
mediate with tech*

audience needs

research

synthesis

design

synthesis

ideation
validation
speed dating
feedback

research

synthesis

design

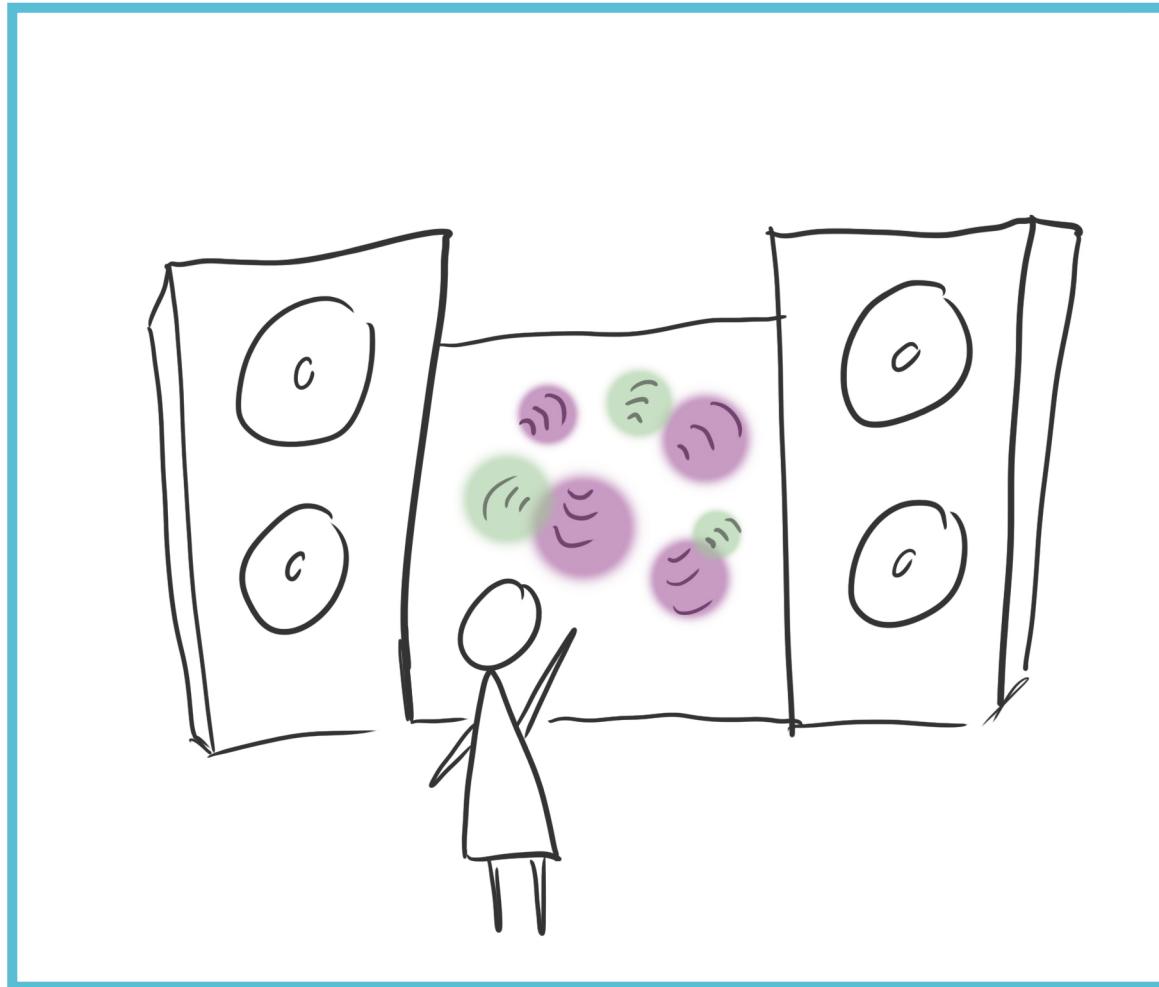
ideation

research

synthesis

design





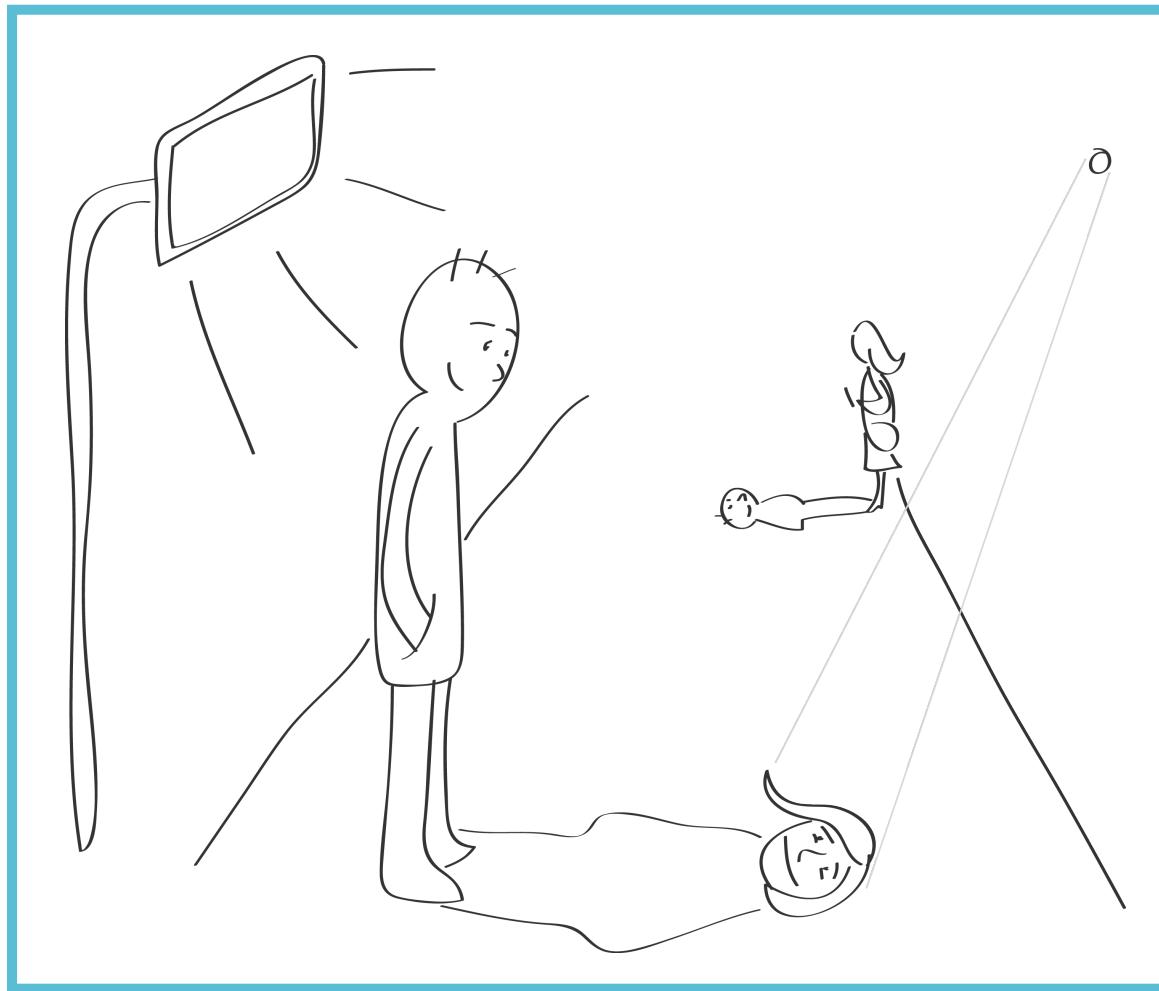
beatmap

ideation

research

synthesis

design



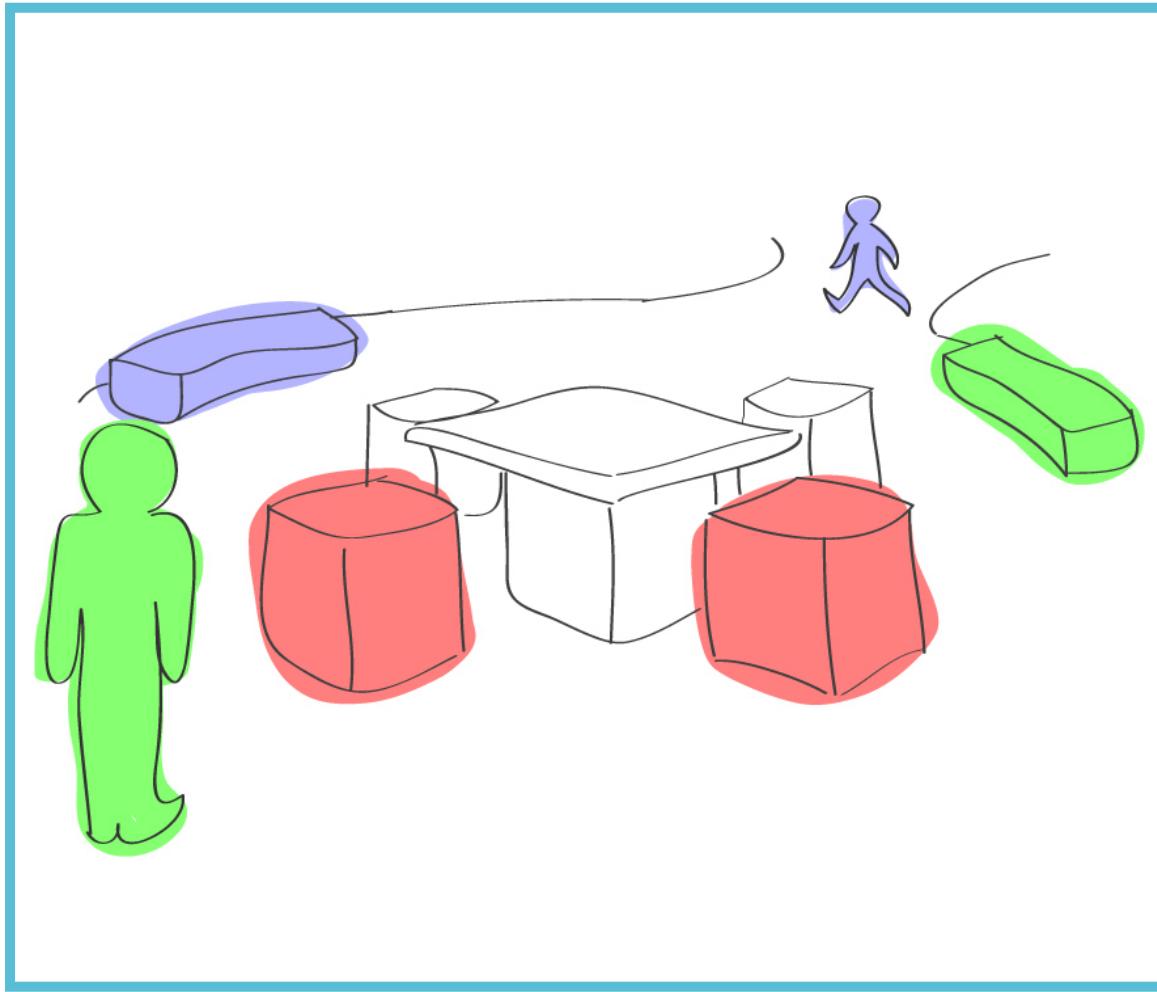
hello, it's me

ideation

research

synthesis

design



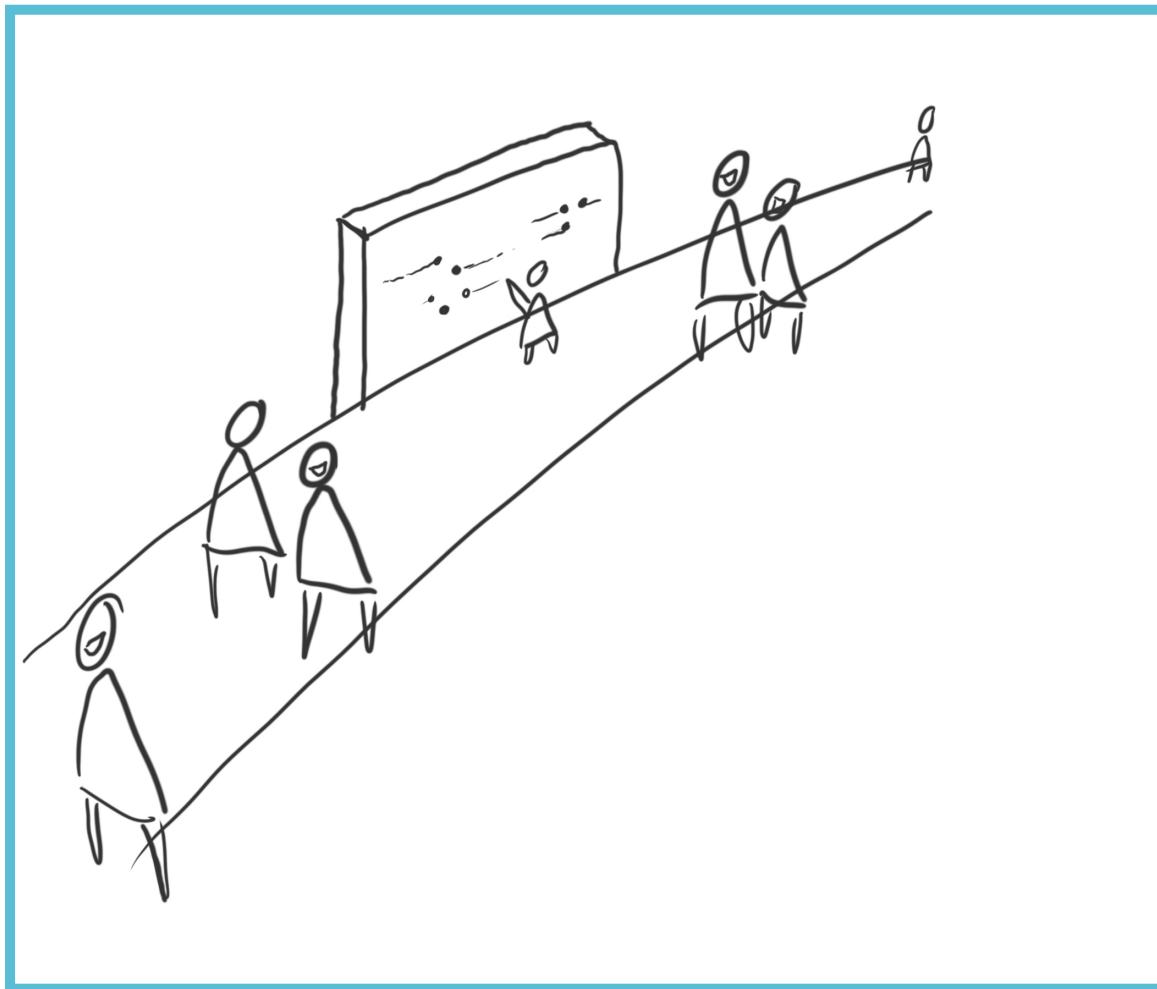
sweet seat

ideation

research

synthesis

design



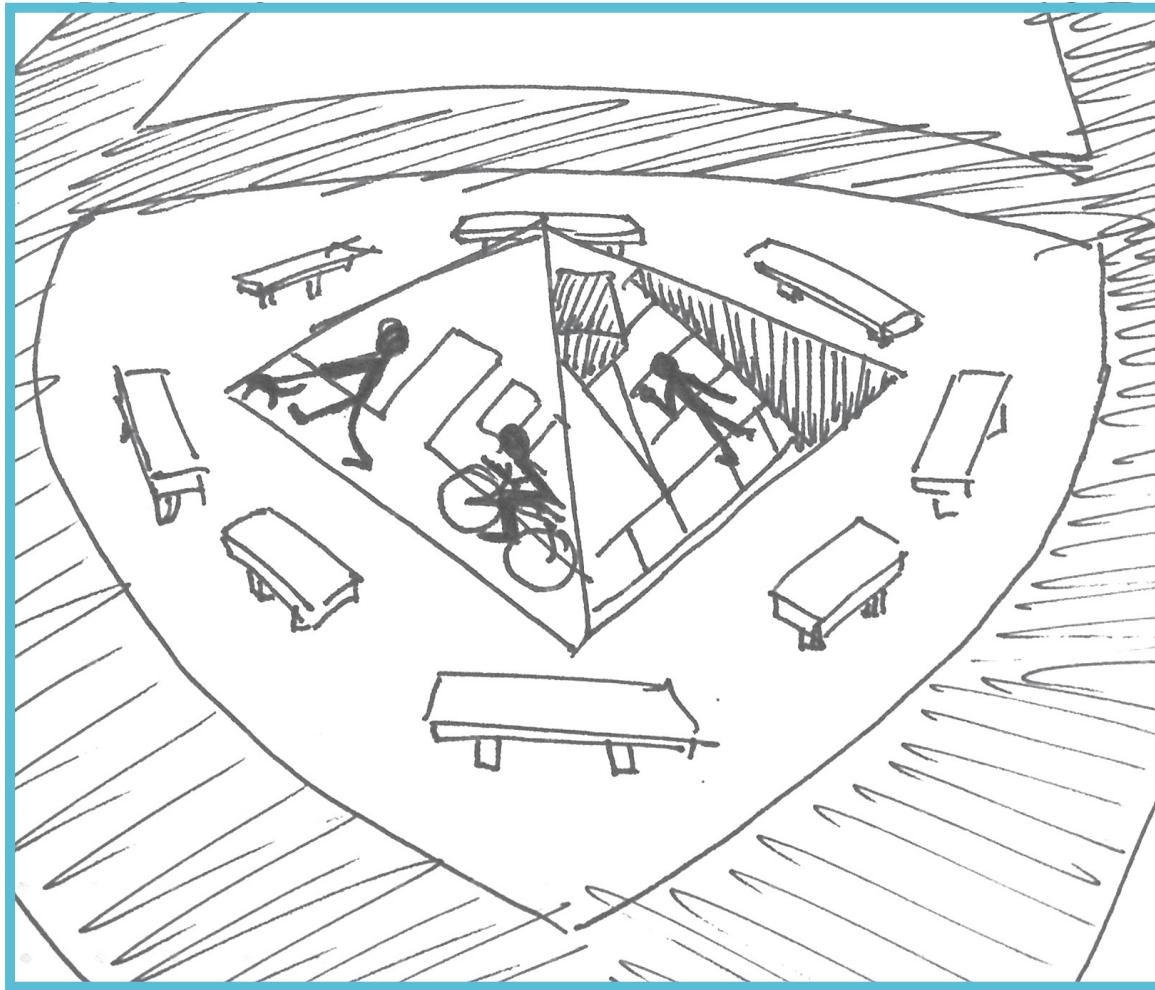
smile mile

ideation

research

synthesis

design



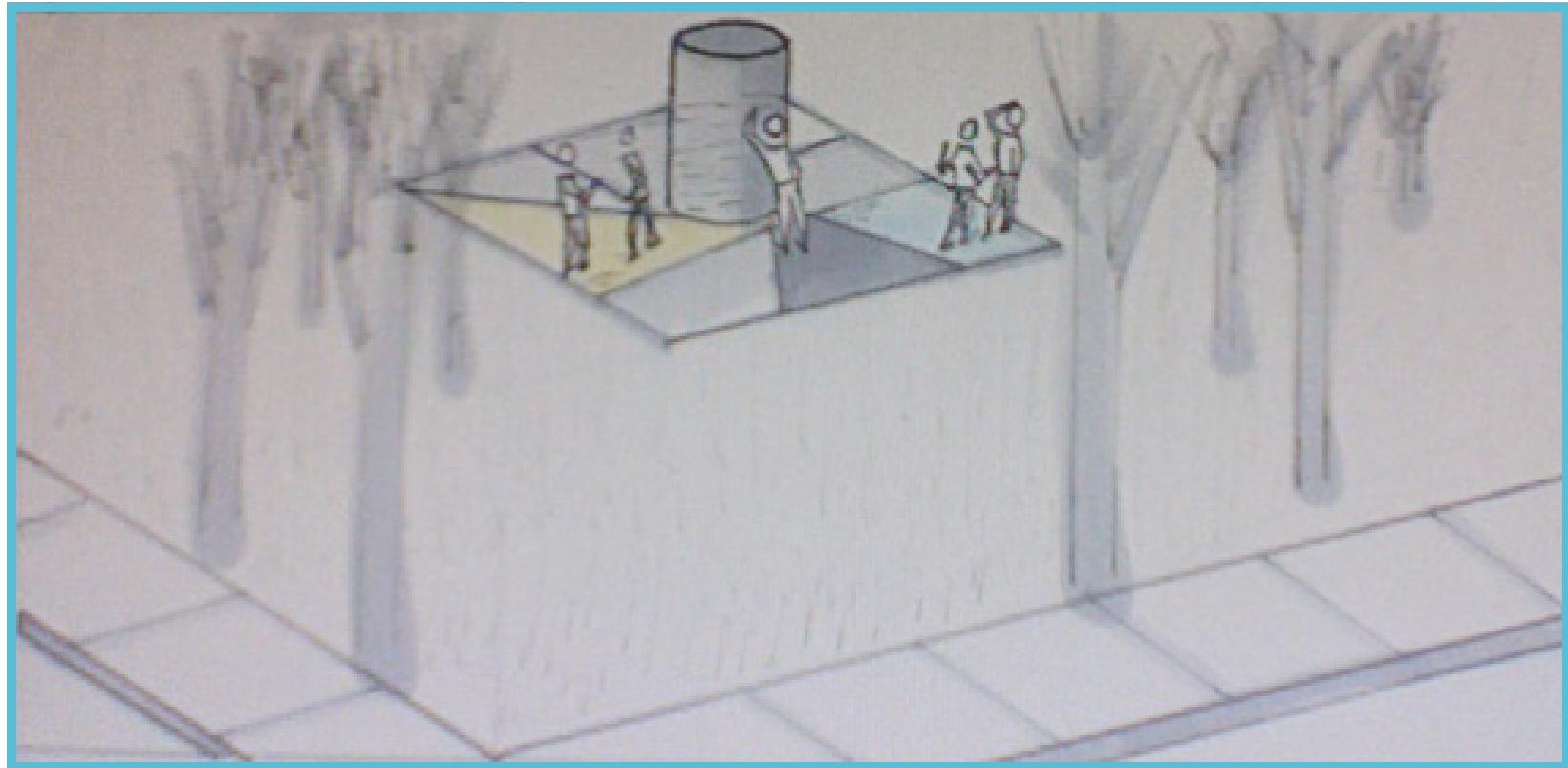
crossroads

validation

research

synthesis

design



storyboarding

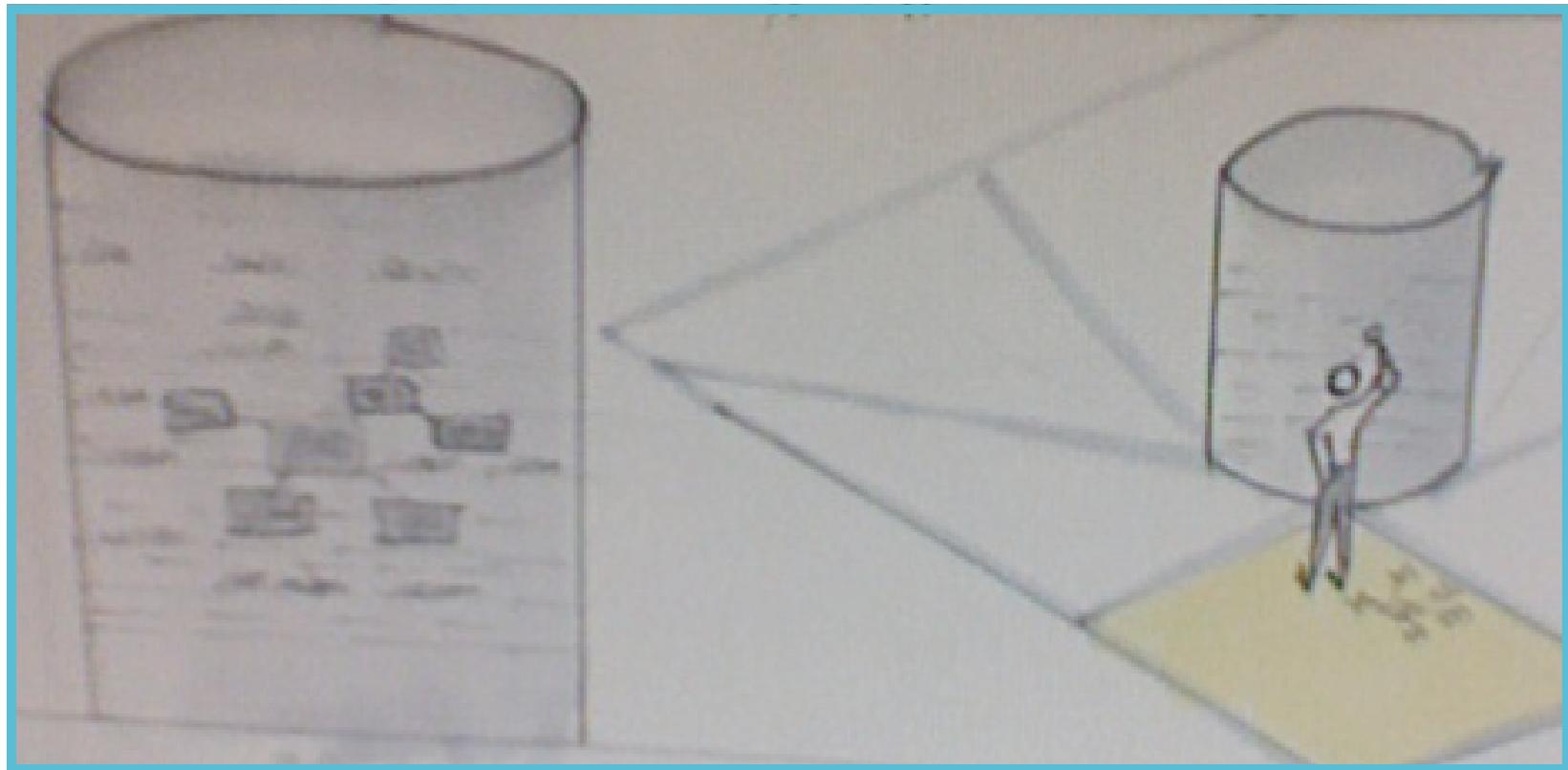
chad has some time while
waiting for his bus outside of
the carnegie library.

validation

research

synthesis

design



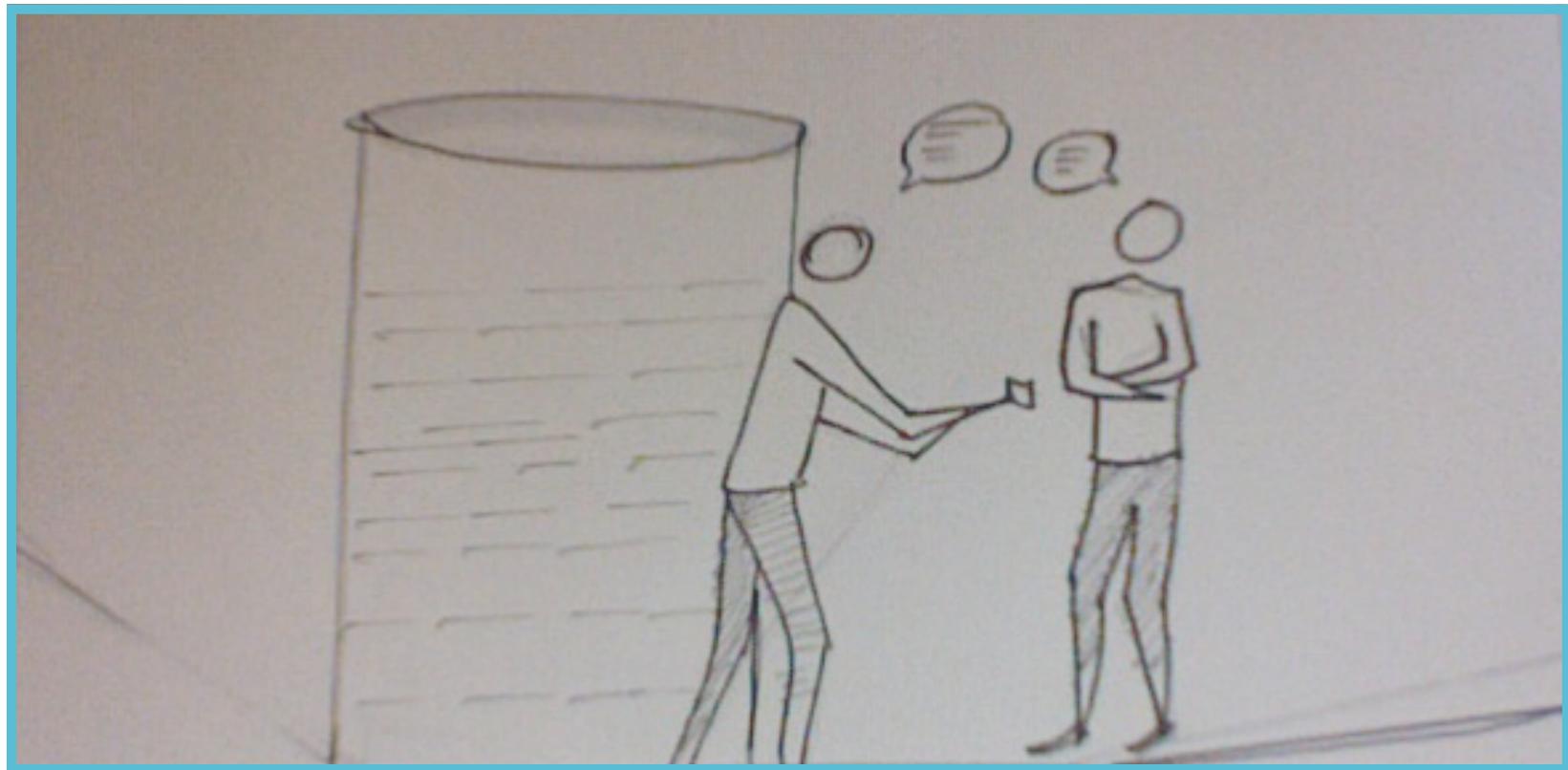
chad approaches the center of the square.

validation

research

synthesis

design



another person in the square
also has a yellow-colored shape.

validation

research

synthesis

design



speed dating lead questions

have you ever wanted to broadcast your availability for conversation?

have you ever wanted to strike up a conversation with someone, but didn't know how to start?

validation

research

synthesis

design



speed dating findings

“It’s hard to connect with people you don’t know. Twitter helps bridge that, and so does this.”

“There could be privacy concerns. I wouldn’t feel comfortable exploring the news topics in public.”

“Striking up a conversation is difficult—it’s not a problem of finding a topic, but more a question of the other person’s personality and willingness.”

feedback

research

synthesis

design

design

summary
key features
video sketch
technology & sensors
interaction

research

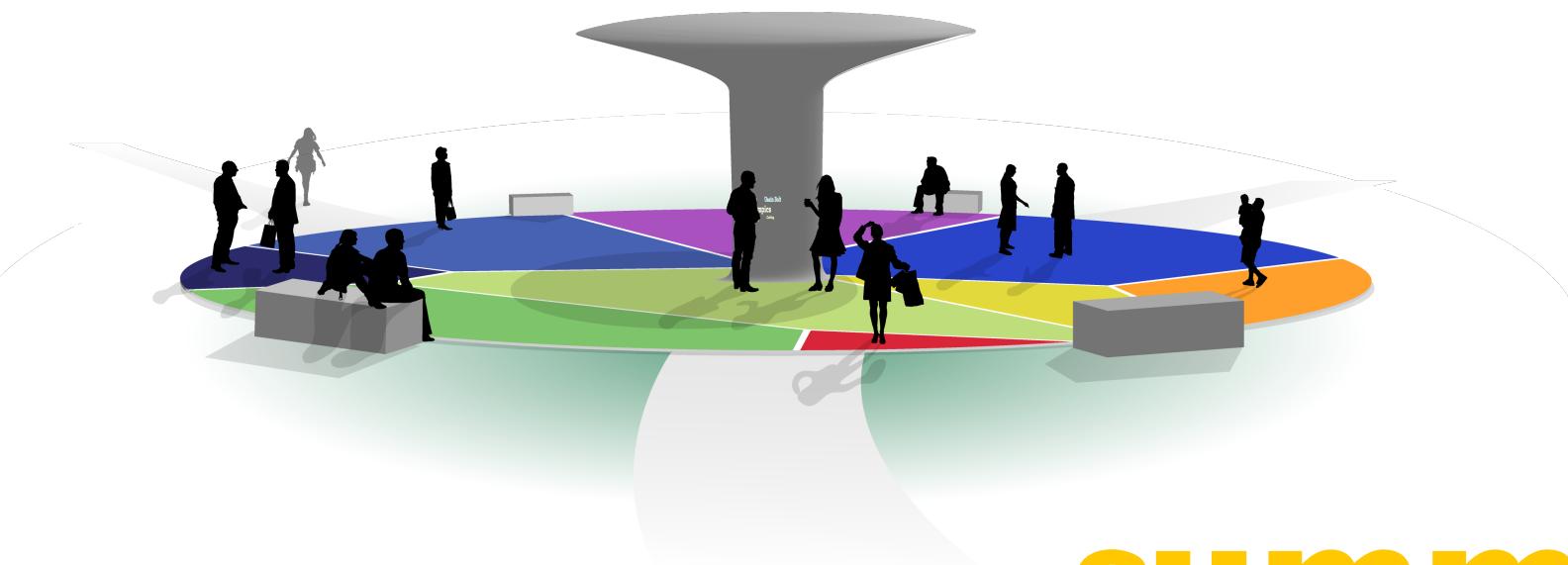
synthesis

design

Parley is a **public interactive system** designed to initiate and mediate spontaneous conversation between strangers

The installation delineates **conversation spaces** on an interactive floor that are occupied by users

A large cylindrical touch screen allows users to choose topics of conversation

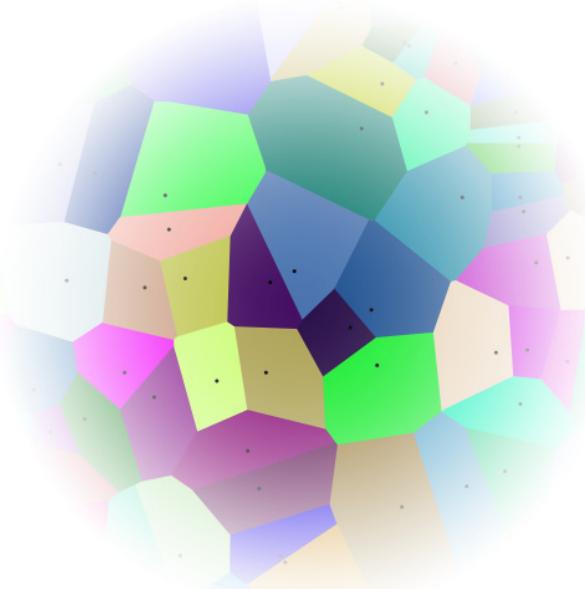


summary

research

synthesis

design



Interactive Floor: Voronoi Diagram

The conversation spaces which surround each person are Voronoi diagrams

Central Cylinder Touch Screen

displays an interactive word cloud



Mobile phone web application

links to Parley to online profile information

key features

research

synthesis

design

video sketch

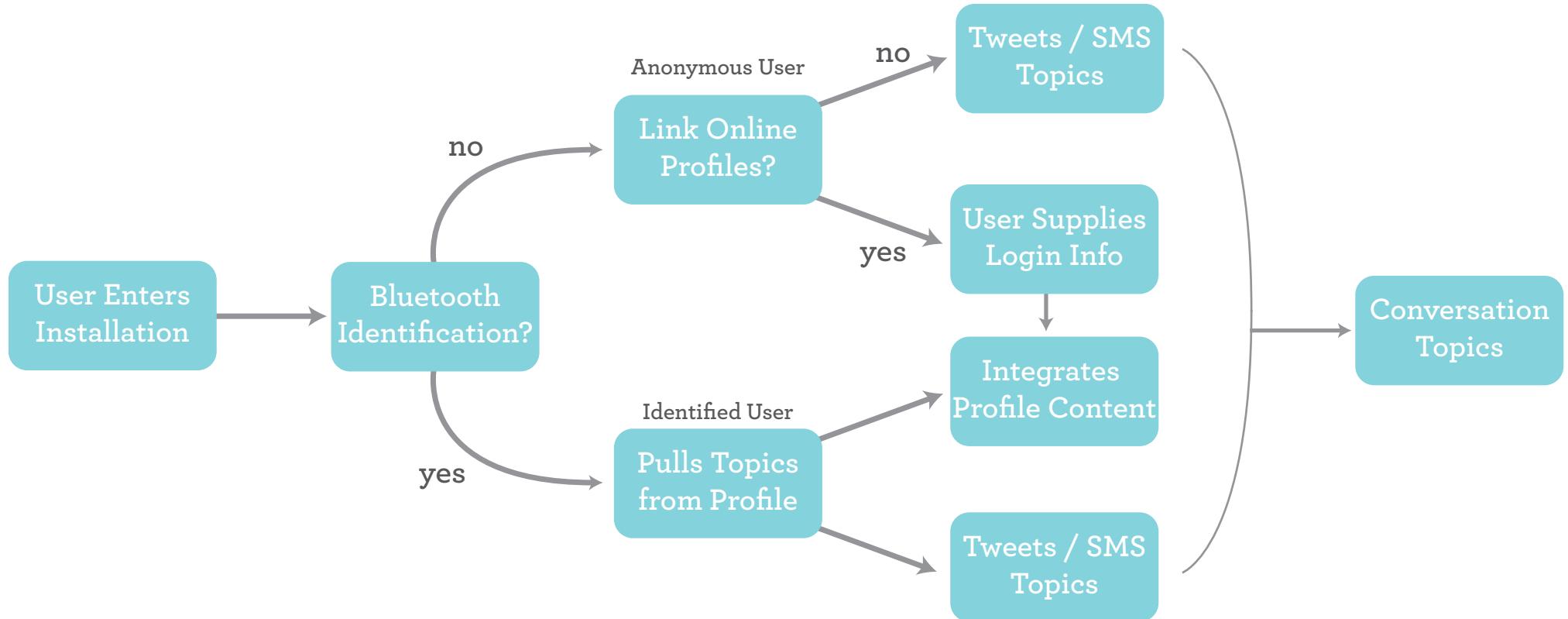
research

synthesis

design

Conversation topics are generated from:

- a) contemporary news topics
- b) user profile information
- c) tweeted or SMSed topics

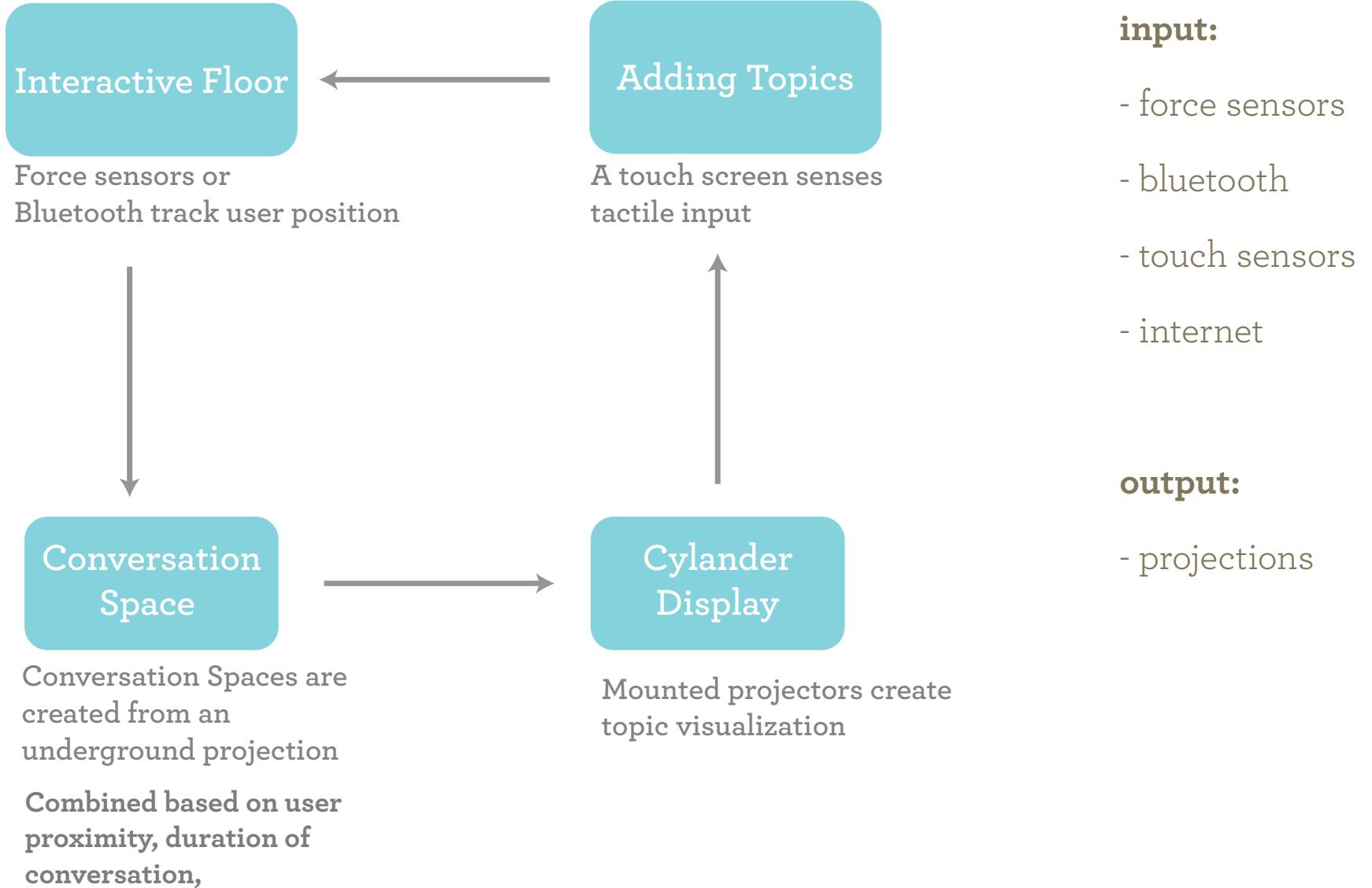


personalization **technology**

research

synthesis

design



sensor **technology**

research

synthesis

design

Visceral & Responsive:

- responds to whole body movements, physical proximity to others' bodies

interaction

Visceral & Responsive:

- responds to whole body movements, physical proximity to other's bodies

Continuously Variable:

- each conversation space changes continuously to reflect body location
- infinite variability in floor composition

interaction

Visceral & Responsive:

- responds to whole body movements, physical proximity to other's bodies

Continuously Variable:

- each conversation space changes continuously to reflect body location
- infinite variability in floor composition

Socially Scalable

- becomes more socially complex, richer with more users

interaction

Visceral & Responsive:

- responds to whole body movements, physical proximity to other's bodies

Continuously Variable:

- each conversation space changes continuously to reflect body location
- infinite variability in floor composition

Socially Scalable

- becomes more socially complex, richer with more users

Socially Familiar

- augments & reinforces existing social behaviors

interaction

Visceral & Responsive:

- responds to whole body movements, physical proximity to other's bodies

Continuously Variable:

- each conversation space changes continuously to reflect body location
- infinite variability in floor composition

Socially Scalable

- becomes more socially complex, richer with more users

Socially Familiar

- augments & reinforces existing social behaviors

Socially Balanced

- users interact with installation as much as they interact with others

interaction



emotional needs

alleviate loneliness

functional needs

*share ideas and
learn from others*

social needs

*broadcast openness,
bridge urban alienation,
mediate with tech*

interaction

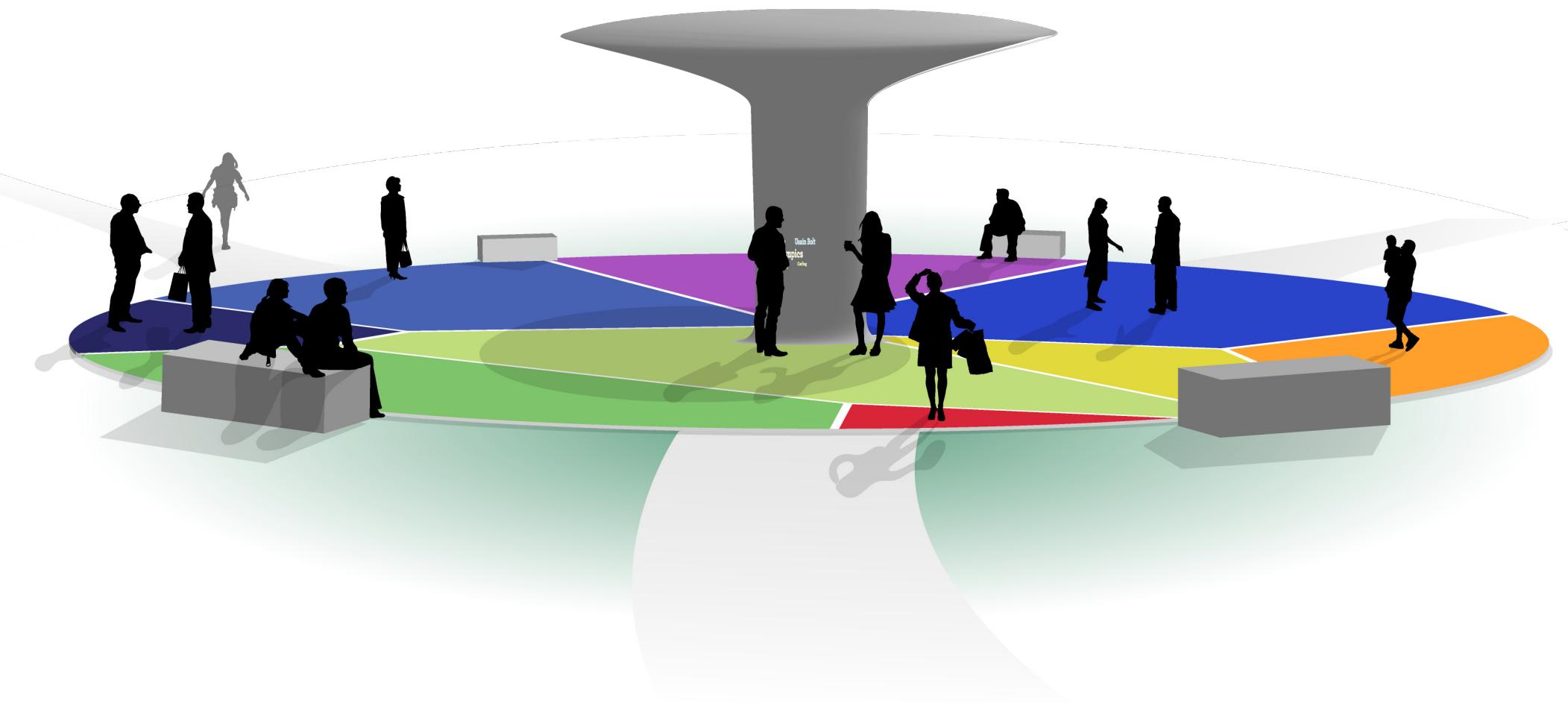
research

synthesis

design



thanks!



research

synthesis

design