



Utilizing **mobility** to improve  
**collaboration** on the **smart campus**

 + **ID**



# Mobility is changing

Mobility is becoming boundaryless. Today, mobility encompasses more than the act of moving from one physical place to another.

*“We don't need to be in one place to be productive. We have a choice. Where you go and work is now a choice, you have options.”*

Design expert from Gensler





# Motivation for mobility

Different motivations are driving individual's mobility preferences. We discovered that one of the biggest motivations to move is to meet with other people, moreover, to **COLLABORATE** with them.

*"You have to spend a lot of time communicating by phone, by email, by powerpoint where things can be lower key **by being in the same room.**"*

Design expert from Allstate Innovation



# Collaboration on the Smart Campus

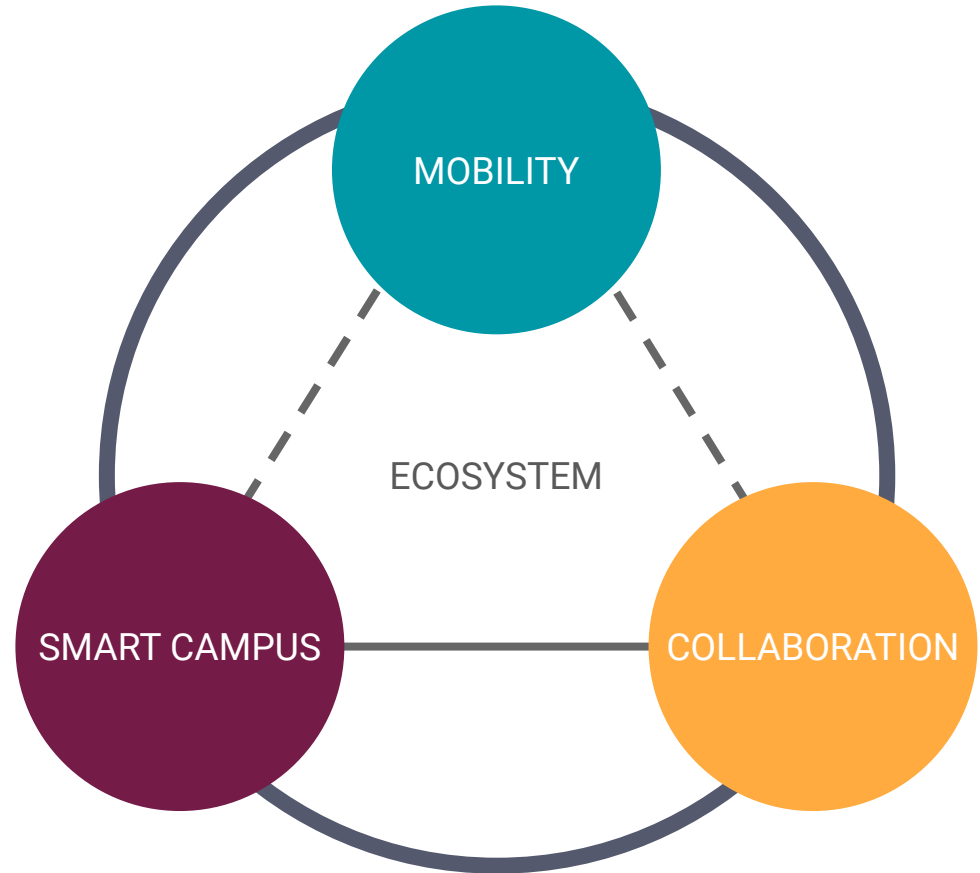
We wanted to explore this change in mobility in the context of a smart campus environment. The smart campus provides an opportunity space where integrated technologies can be harnessed to better facilitate collaboration and mobility.

*"Smart campuses will not only use technology and IoT to support tasks like collaboration, virtual meetings and autonomous mobility, but they will also securely gather data on how students and staff move."*

Vasileva, R, author of smart campus report

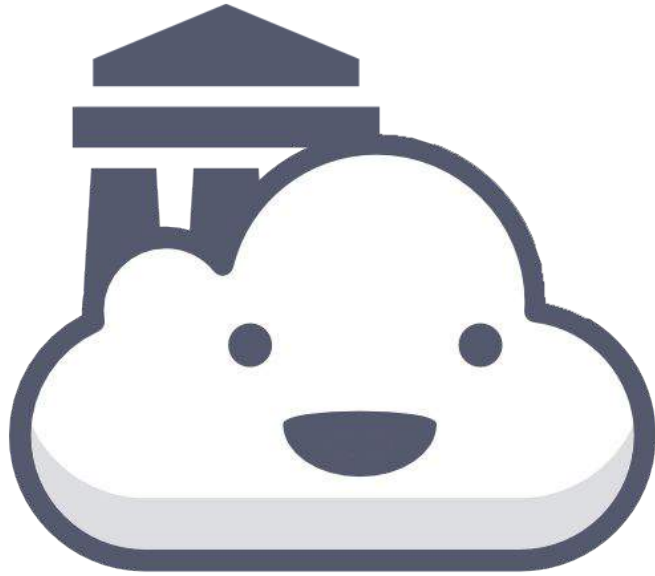
## MOBILITY IN THE CONTEXT OF COLLABORATION

Mobility is **less about moving** people and things from point A to point B and increasingly about **service ecosystems** that support people's changing motivations to move.





Let's see how **mobility, collaboration,**  
**and the smart campus** can play  
together in the future.



Hi, I am **scAI**.

Taking campus to the cloud



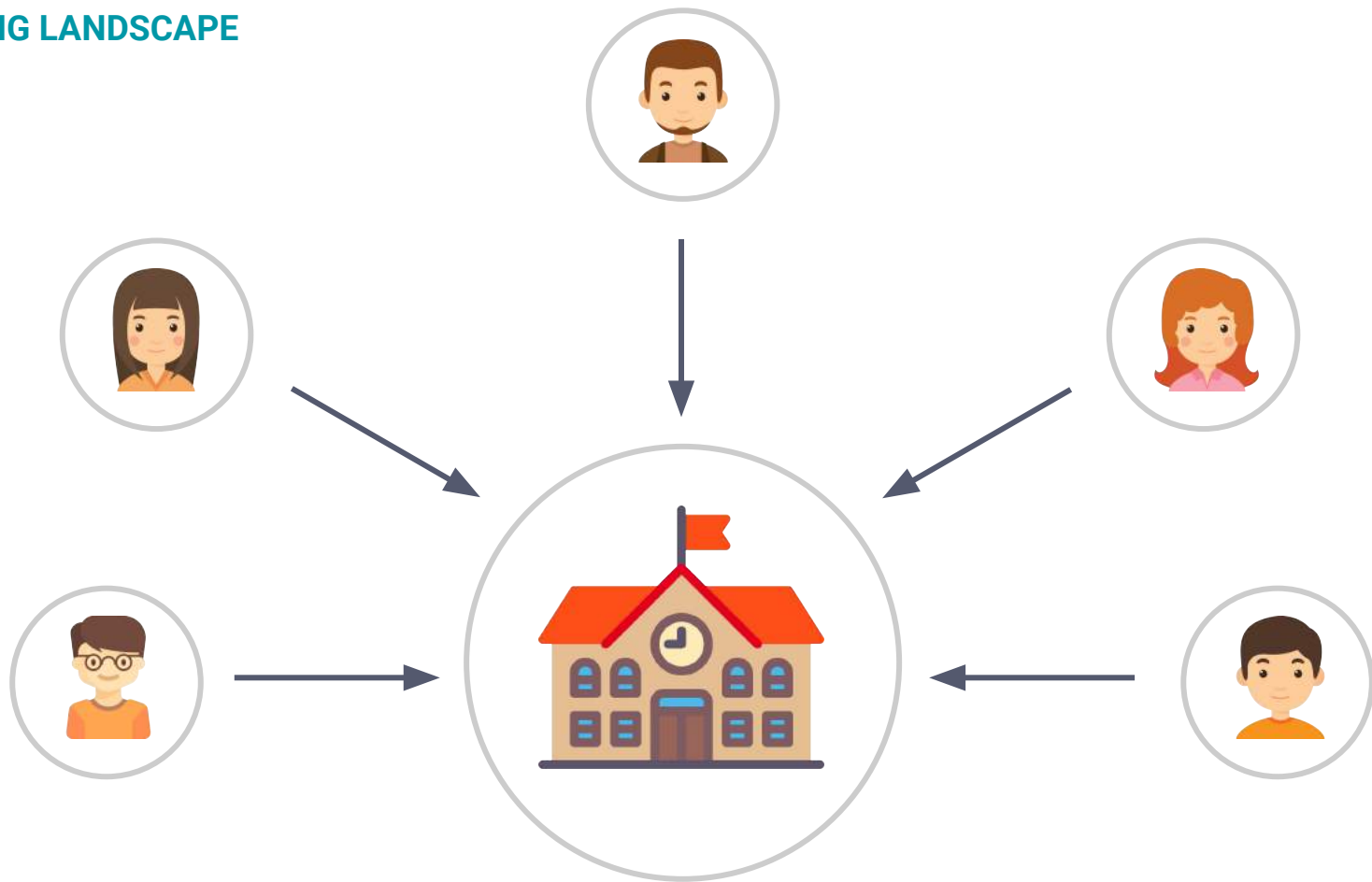
“

I am an **online platform** that helps students and educators by integrating smart technologies and **optimizing their experiences** across virtual and physical place.

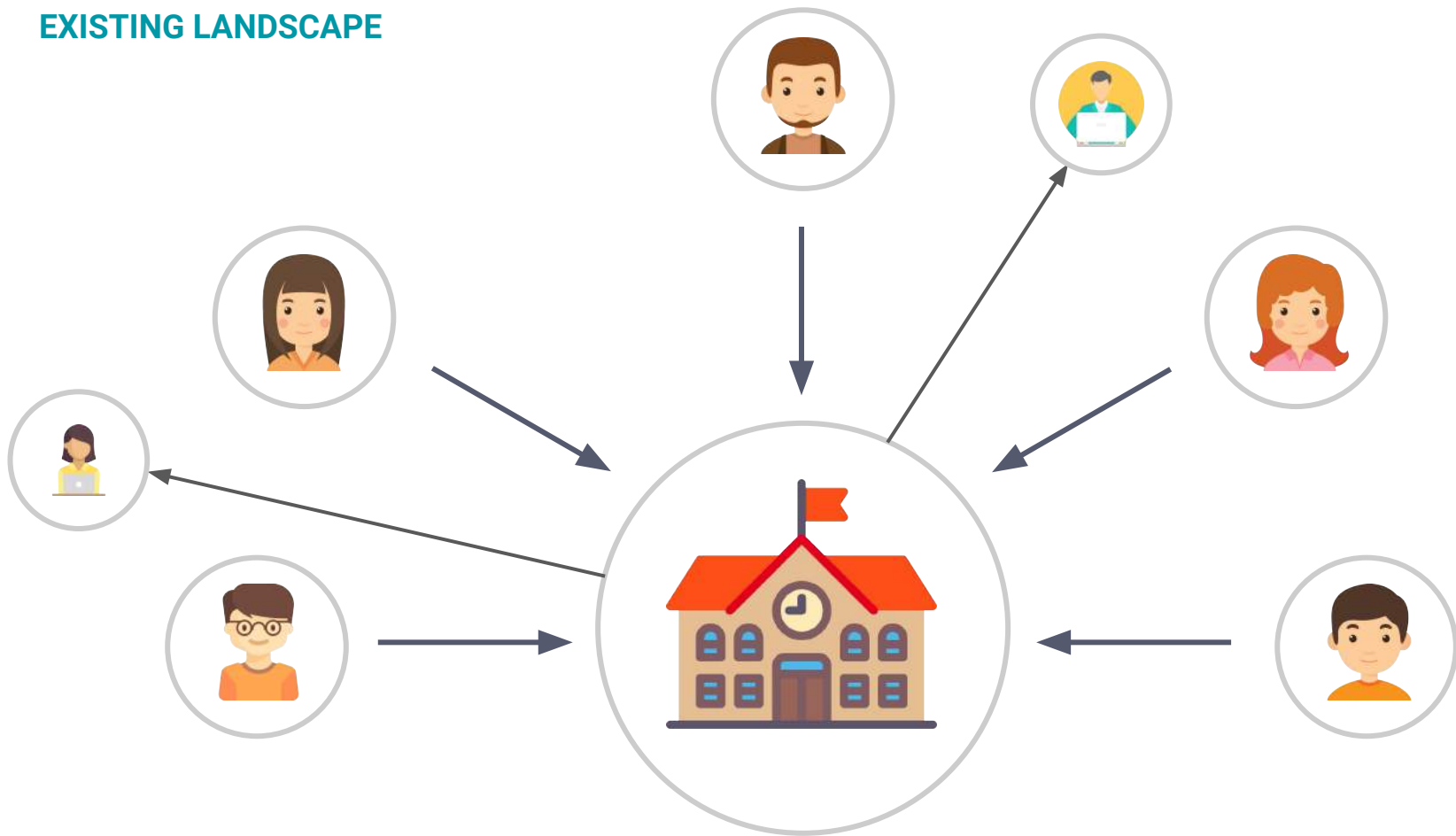
”



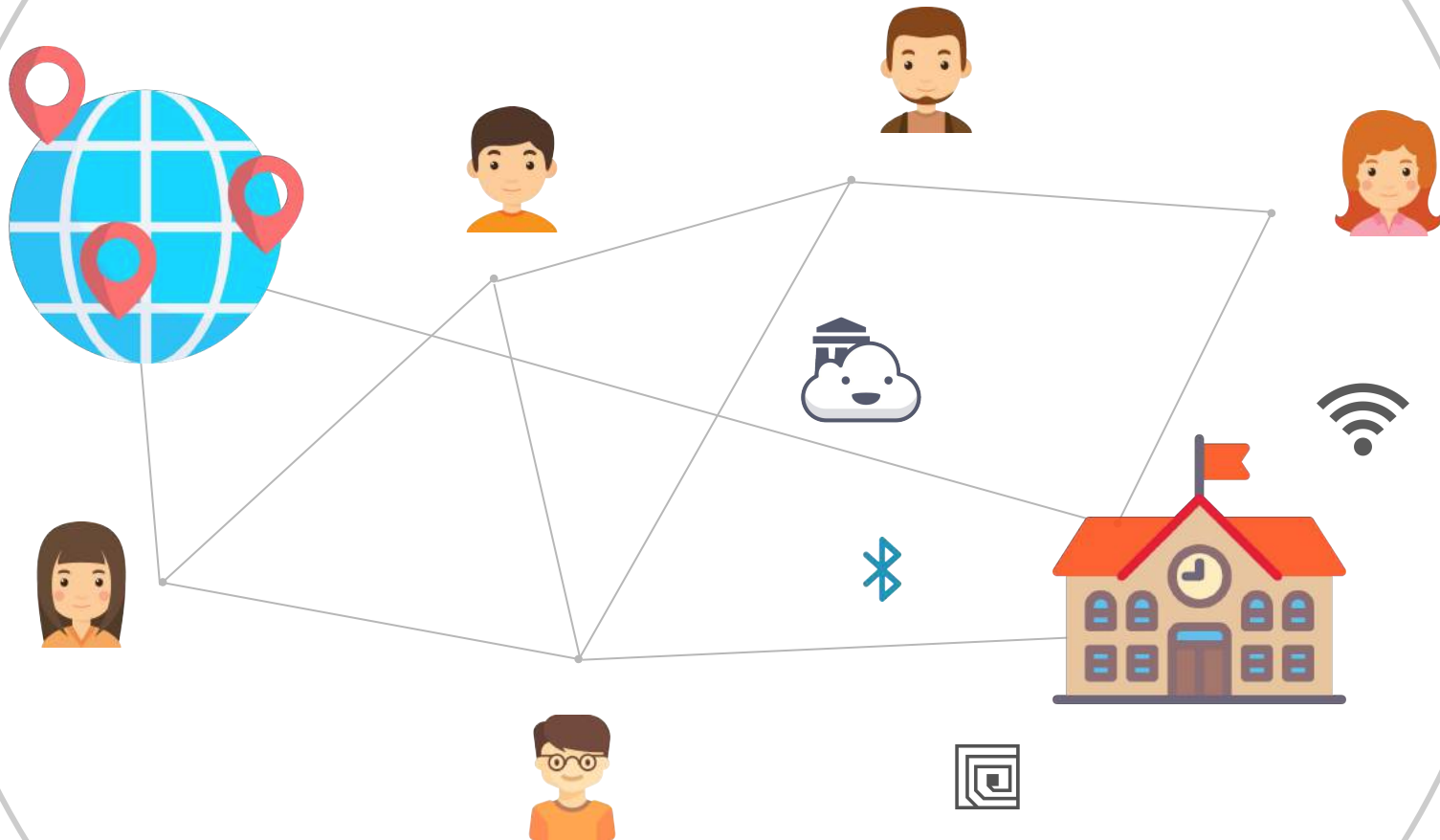
## EXISTING LANDSCAPE

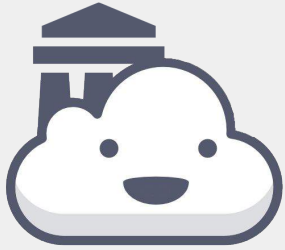


## EXISTING LANDSCAPE



# FUTURE LANDSCAPE *with me*



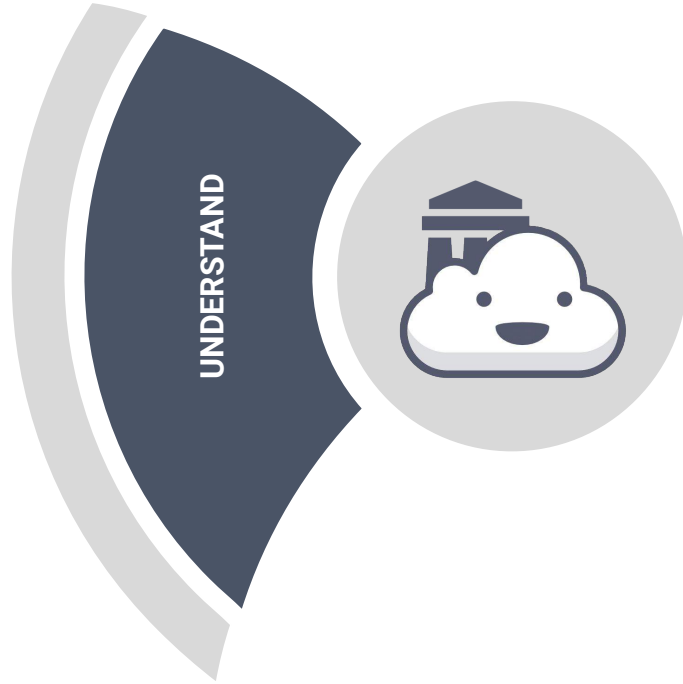


“

I operate as a **plug-in** to the university portal which also extends to individual applications.

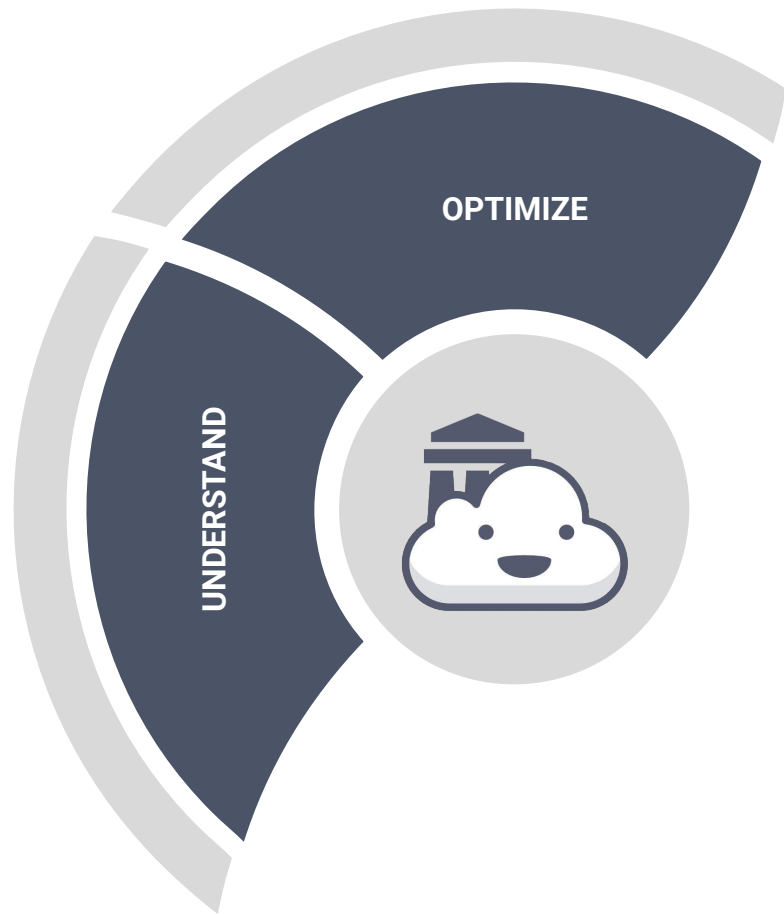
”

## WHAT I DO?

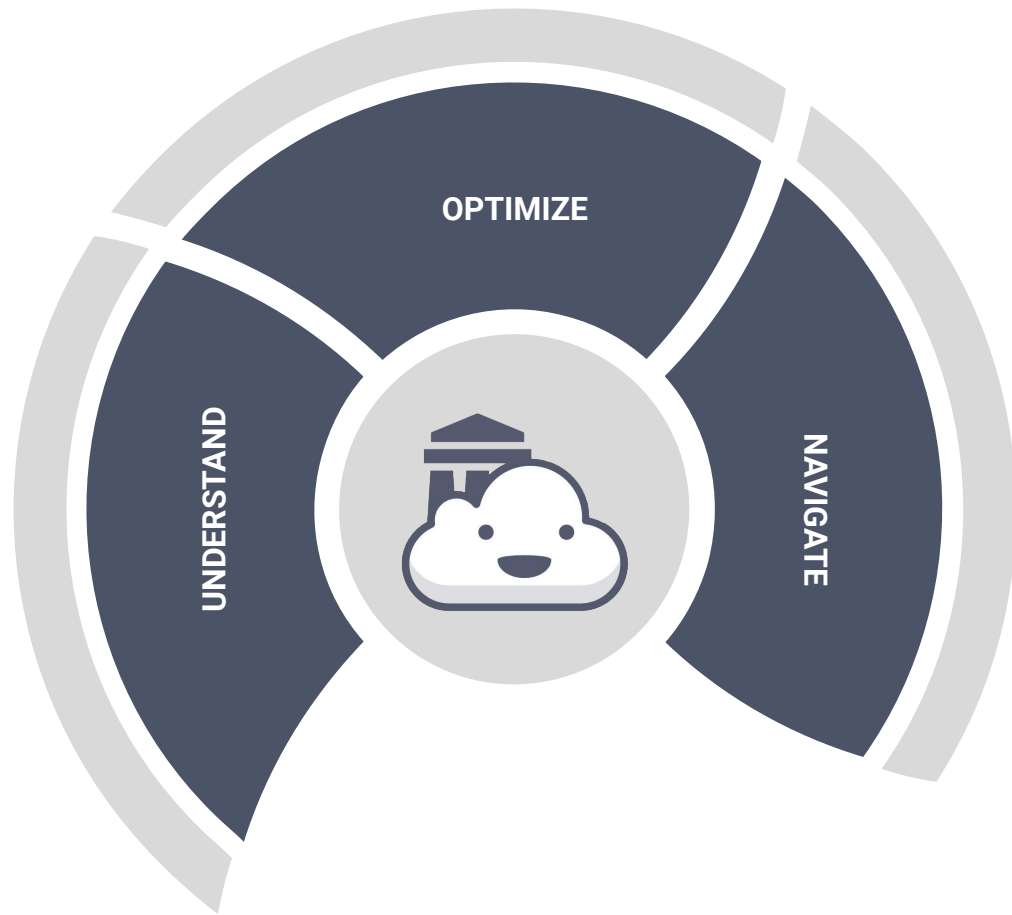




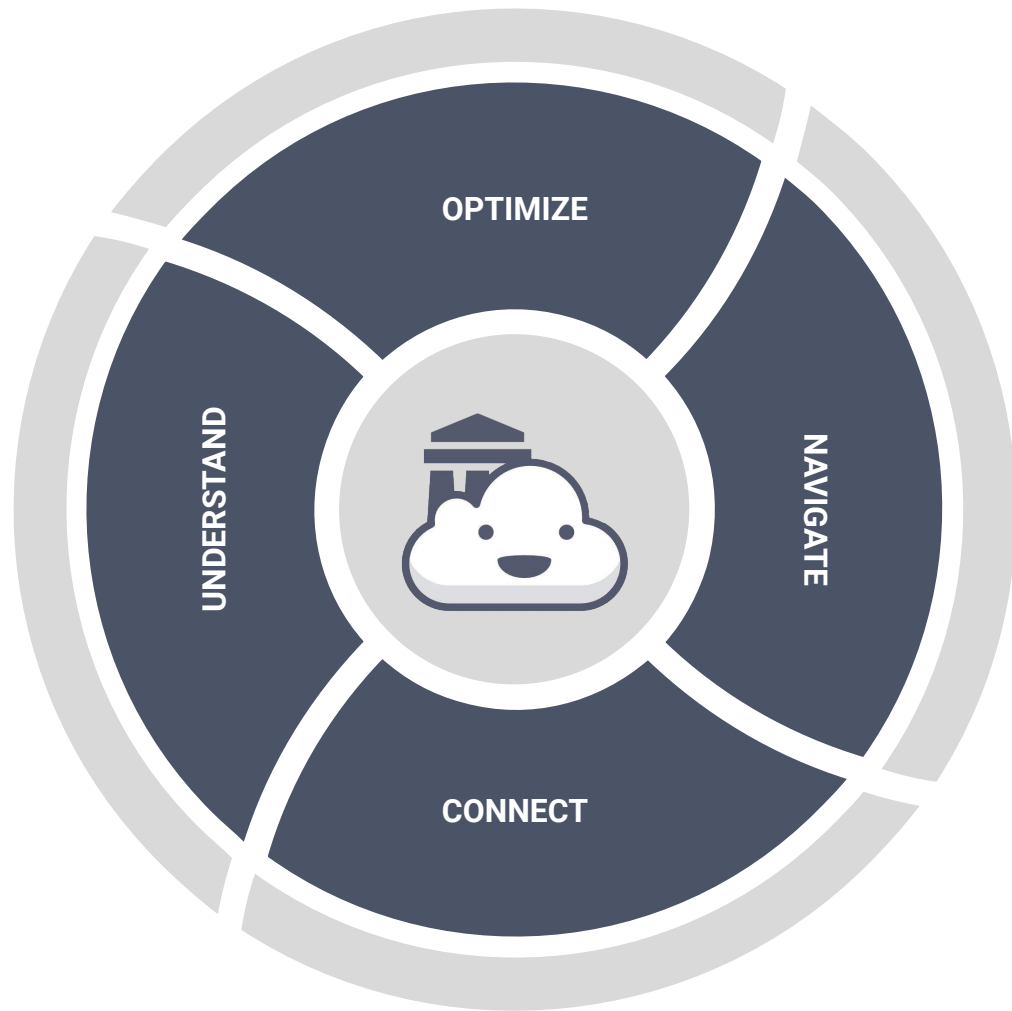
## WHAT I DO?



## WHAT I DO?



## WHAT I DO?



## HOW I WORK

### scAI harnesses the power of AI

scAI learns from user behaviors and preferences while using the platform, making scAI's suggestions smarter and more personalized each time.

### scAI connects to smart campus technologies

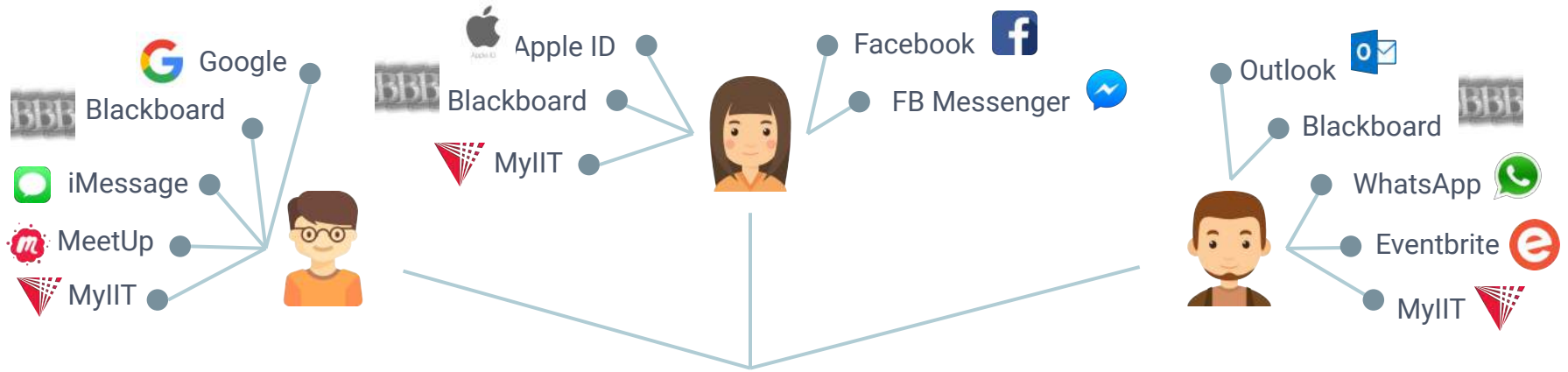
scAI connects people to people by harnessing and analyzing data collected from smart campus technologies to reduce barriers of collaboration across distance and time.

### scAI integrates disparate tools

scAI integrates **users' preferred communication and organization applications on one platform** allowing each person to work with the tools that best support their needs while eliminating disparity.

### scAI shares data between applications

scAI is a platform that allows for data sharing between different products and services to allow for an optimized collaboration experience.



scAI





“

Let's see how a smart campus  
life would be like  
with me.

”

## THE TEAM



**Tom** mostly works from home when he does not have class. For commuting, he uses his own car.

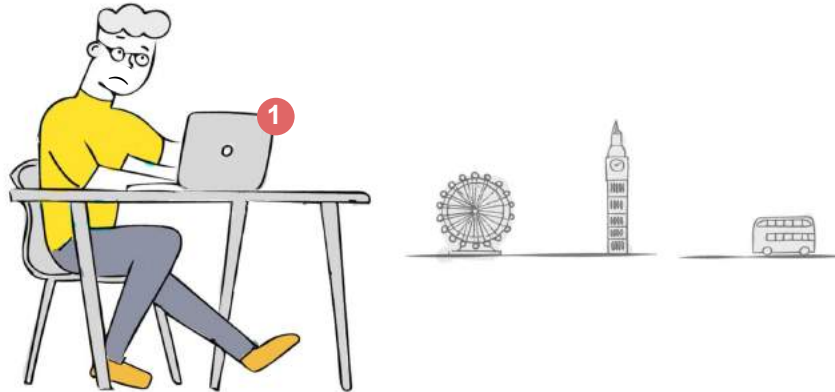
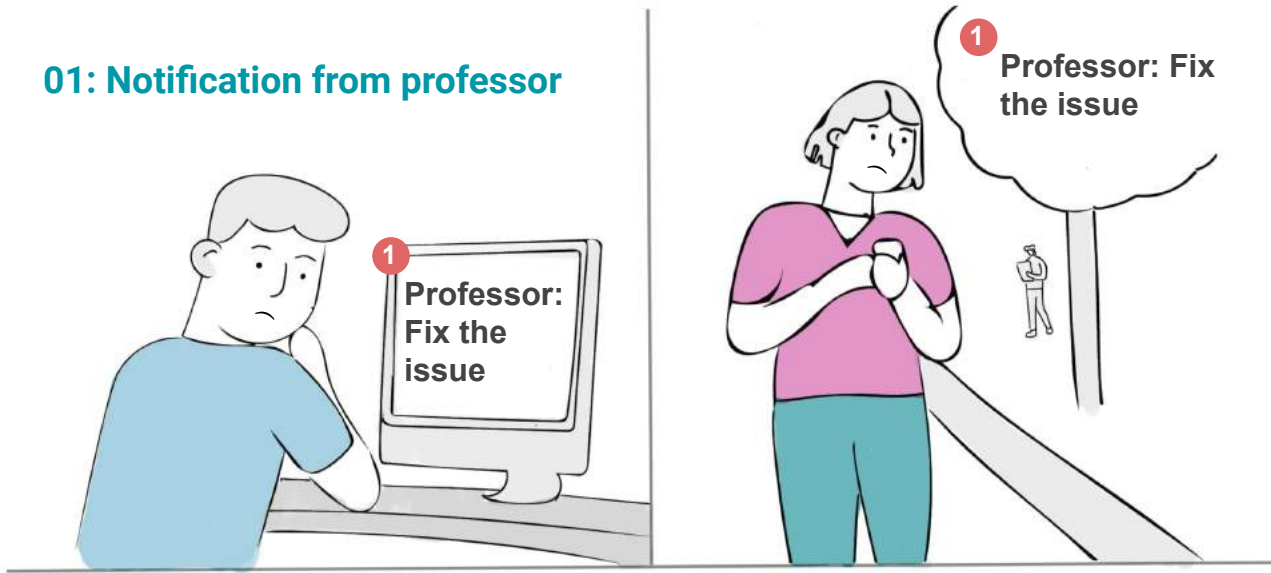


**Alice** lives near school, so she spends most of her time on campus. She prefers walking to school.



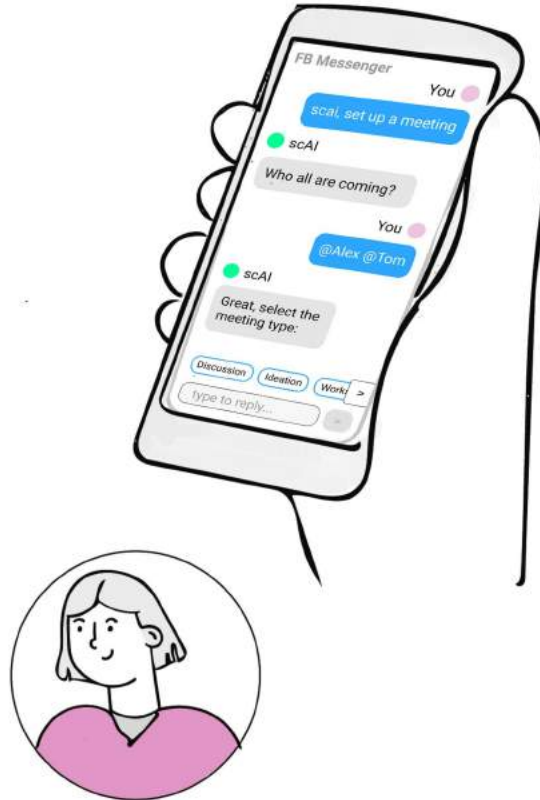
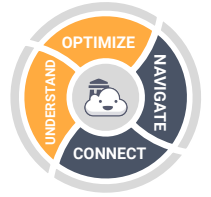
**Alex** is a part-time student who travels a lot due to work. Currently, he is in London.

## 01: Notification from professor



The team receives feedback from their professor on a project they are working on together. They are missing a piece of their presentation that is due the next day and need to organize a last minute meeting to fix the problem.

## 02: Initiating the meeting

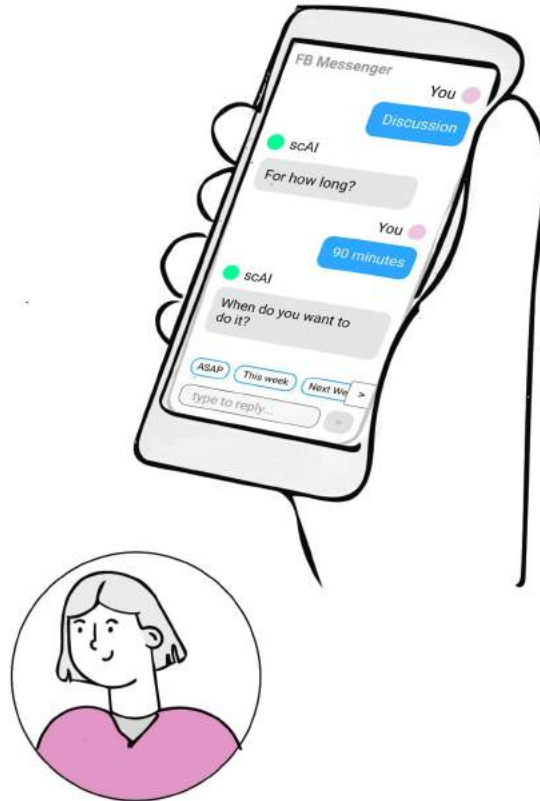
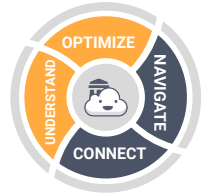


Alice initiates the meeting request to the other team members.

Platform prompts with questions for:

- Who are the members?  
**@Alex @Tom**
- What is the meeting type?  
**Ideation**
- Meeting immediacy?
- What is the meeting length?

## 02: Initiating the meeting



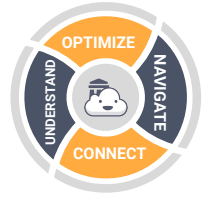
Alice initiates the meeting request to the other team members.

Platform prompts with questions for:

- Who are the members?  
**@Alex @Tom**
- What is the meeting type?  
**Ideation**
- What is the meeting length?  
**90 Minutes**
- Meeting immediacy?  
**ASAP**



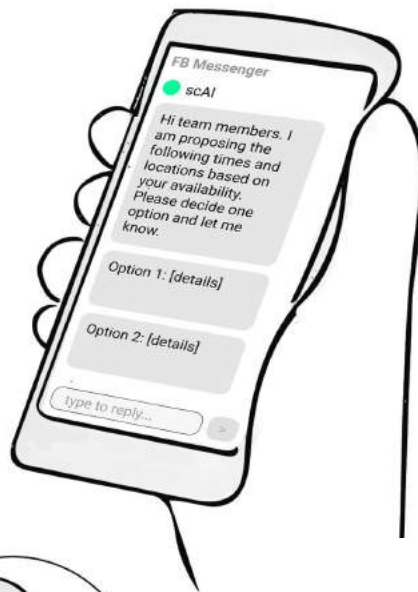
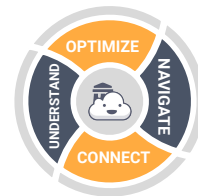
## 02: Initiating the meeting



scAI prompts Alice that the meeting has been initiated and provides a link to the new group created for further discussion.



### 03: Receiving meeting notification



Team receives request with two options that is best suited to them according to their schedule and location.

**Channels**  
# Ideation Meet

**scaI:** 10:00 am  
**Ideation meeting with Alice and Jon**

Hi Alex!

Alice has requested for an urgent meeting with you and Max. Based on your availability, I am proposing the following options:

Option 1: [details]    Option 2: [details]

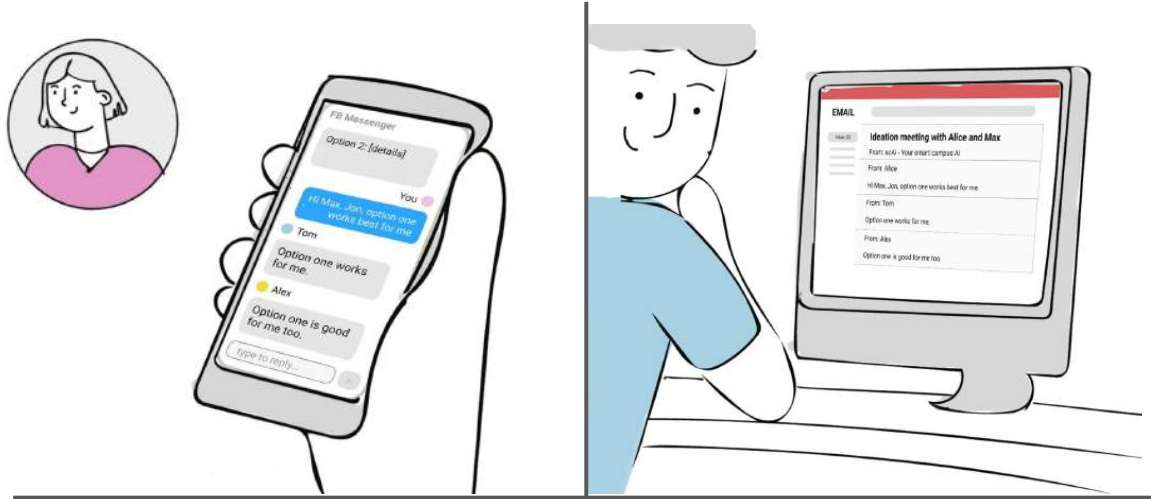
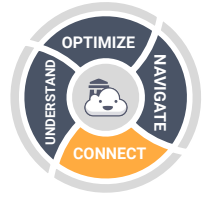
Reply to this email to accept the meeting, chat with your team-mates, or ask for information.

Alternatively, you can join here:

FB Messenger    Text Message



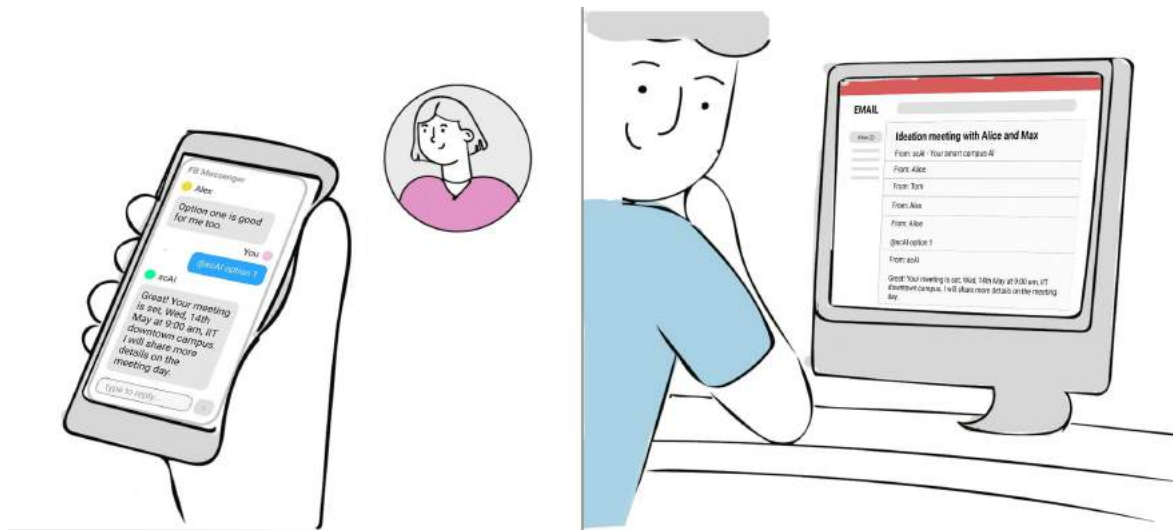
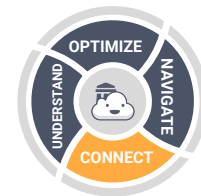
### 03: Receiving meeting notification



The team chats to decide on best choice and tell scAI about their selection.



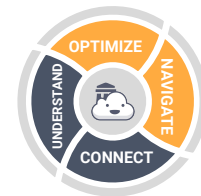
## 04: Confirming the meeting



scAI confirms meeting time, date and place. Sends a booking confirmation to each member.



## 04: Receiving meeting details




FB Messenger

scAI


Hi Alice! You are meeting with Tom at IIT Downtown campus and Alex will join virtually from Heathrow Airport.

Take the CTA bus at 9.00 am

Scan the barcode at scAI Kiosk in the location to find room and unlock it:



Type to reply...



EMAIL

Inbox (2)

**Ideation meeting with Tom and Max**


From: scAI - Your smart campus AI

From: scAI, Alice, Alex


From: scAI

Hi Tom! You are meeting with Alice at IIT Downtown campus and Jon will join virtually from Heathrow Airport.

Start from your home at 9.30 am to reach the Downtown campus on time



Scan the barcode at scAI Kiosk in the location to find room and unlock it:




Channels

# Ideation Meet


scAI

Hi Alex! You are meeting with Alice and Tom by joining them virtually from WeWork location at the Heathrow Airport.


Take uber from your hotel at 1.30 pm to reach the location at time. Click on the link below to **Book the Uber Directly.**



Scan the barcode at scAI Kiosk at the Airport to find the WeWork location and unlock it.

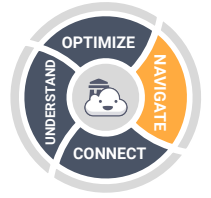
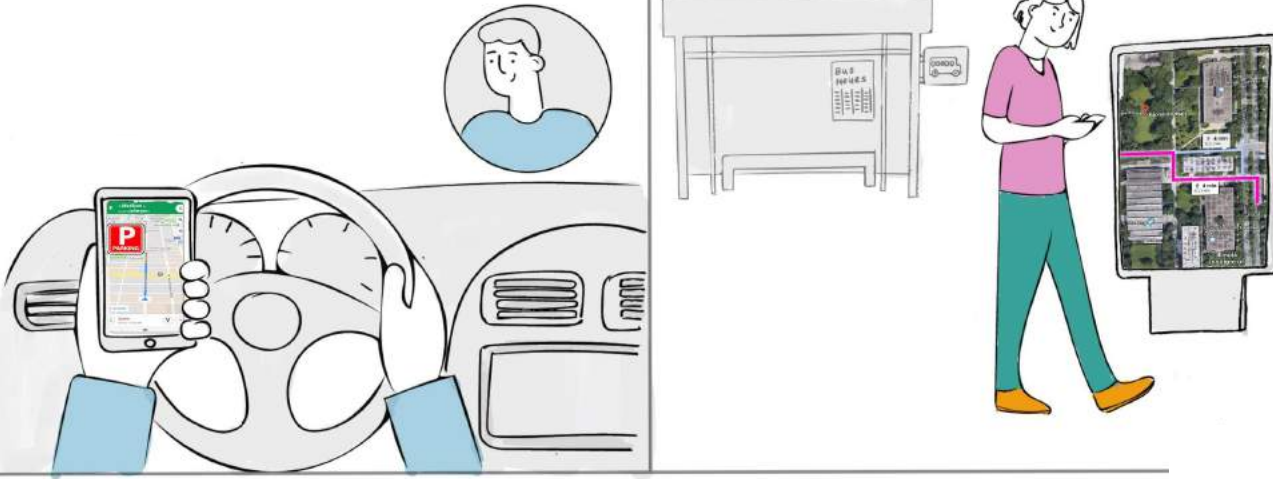


Type to reply...



On the day of the meeting, scAI sends the users additional details about the meeting location, access, and navigation to the location.

## 05. Navigating



### User Perspective

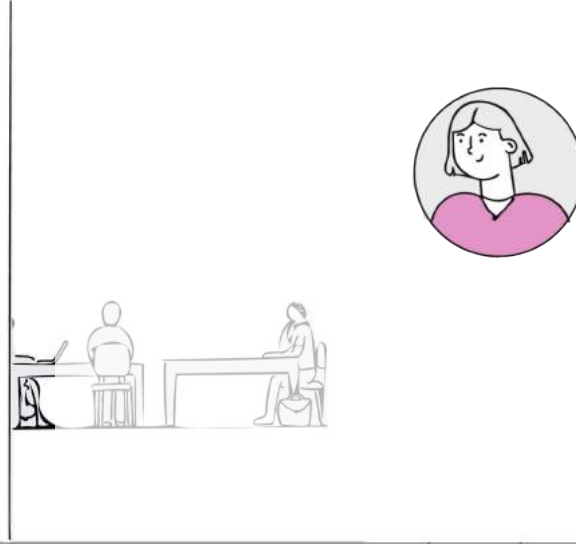
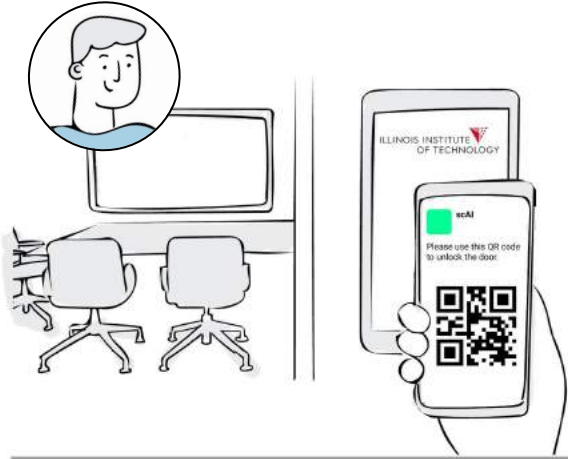
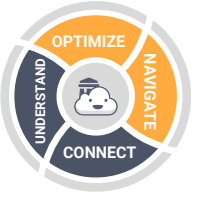
Each team member is provided with navigation and meeting instructions.

### Technology/ System

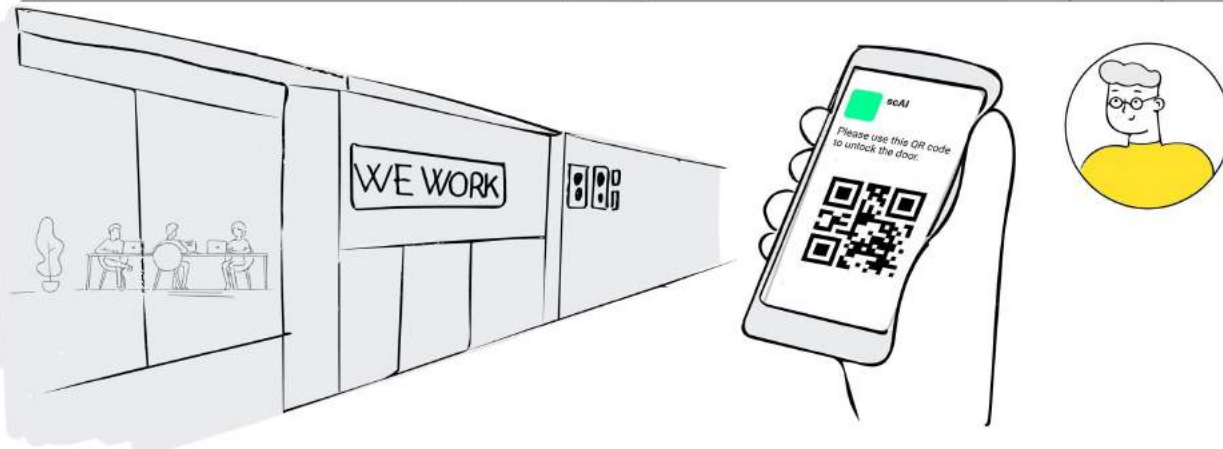
sCAI syncs to smart campus devices and analyzes data to provide the team with optimized route planning, directions, and access to spaces/places if necessary (parking, buildings, rooms, etc.)



## 05: Accessing the locations

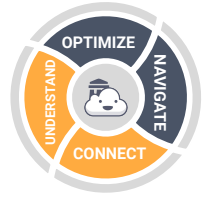


Team members enter their reserved work areas by using the QR codes provided by the platform.





## 06: Collaborating and Transcribing



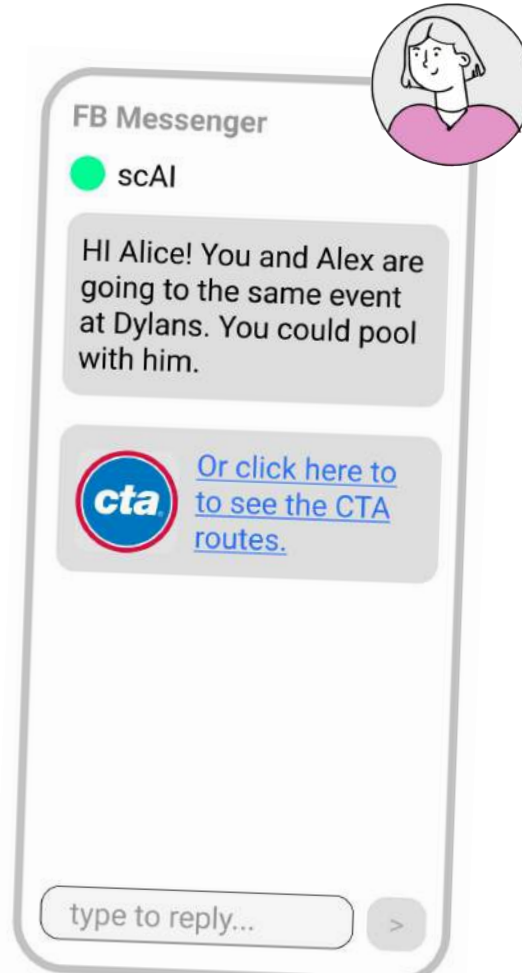
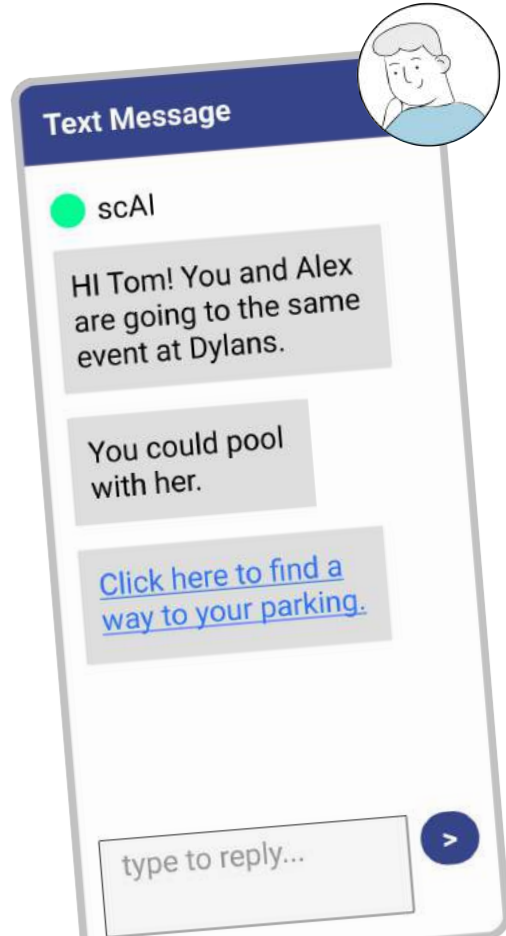
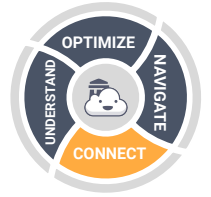
scAI records collaboration / meeting assets (notes, voice recordings, images, etc.)

It integrates with existing collaboration platforms

- Miro/Mural
- Skype
- Google Drive
- Cisco Collaboration




## 07: Social Extension



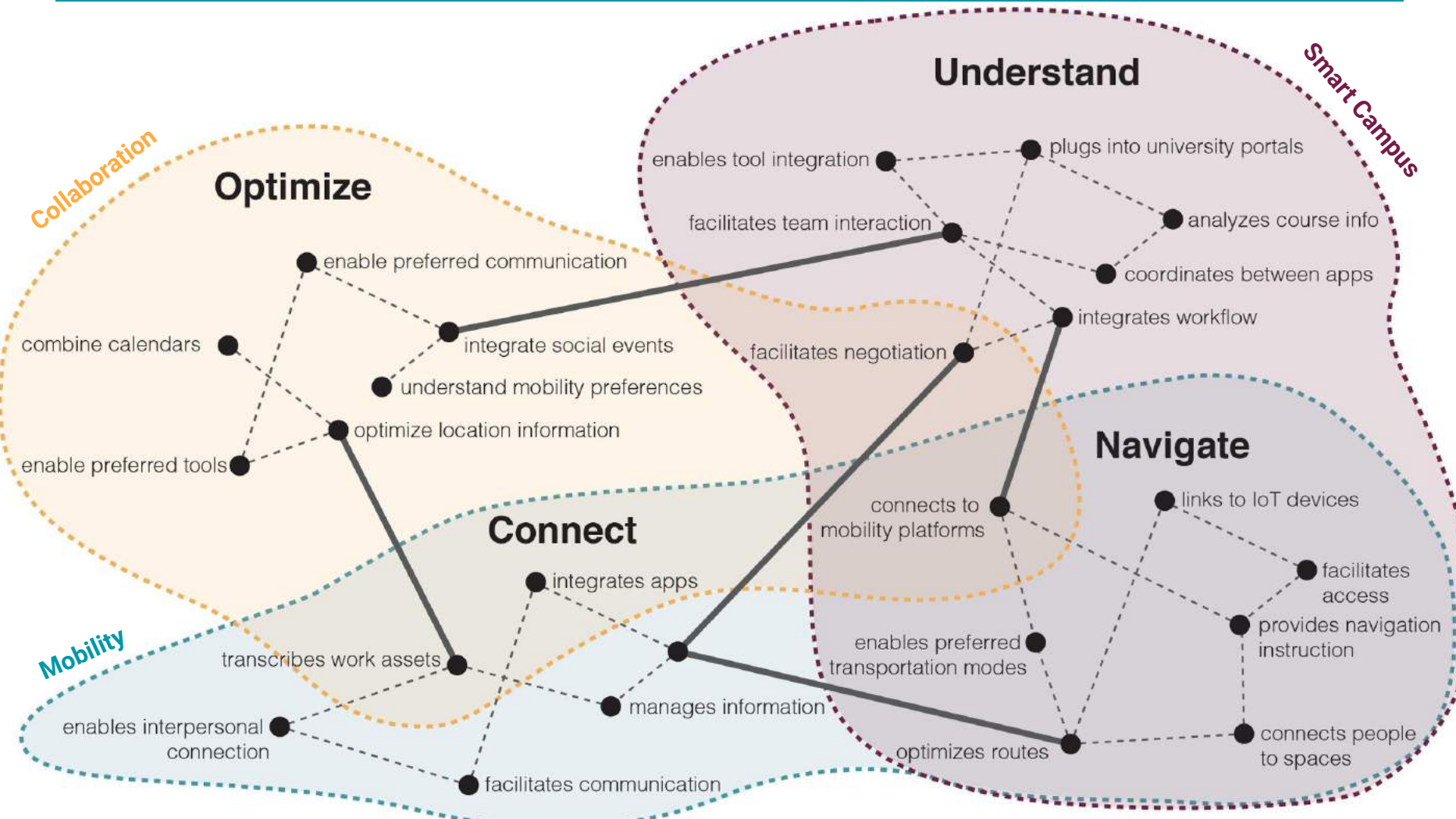
Tom and Alice get an update about a social event that they are both attending.

scAI integration with Facebook, MeetUp, and other social platforms.



*Hey Alice, are you going to Dylan's too? I can give you a ride!*

*Oh that would be awesome! Thanks Tom!*



# ROADMAP



## Users/clients

Students and educators/  
university

## Users/clients

Professionals/  
Business or  
organizational  
campuses

## Digital Assistants

Google Assistant  
Amazon Alexa  
Other virtual  
assistants

## Navigation Services

Apple Maps  
Google Maps  
Here Maps

## Locations

Airports, Train  
stations, Public  
Libraries

## Locations

University campus,  
University locations  
outside the main  
campus

## Locations

Company's campuses  
across different cities,  
WeWork, Convene,  
restaurants, private meeting  
and convention spaces for  
rent.

## Mobility Services

Uber  
Lyft  
CTA  
Metra

## Communication Services

Gmail  
Facebook  
Outlook  
Whatsapp  
Slack

Location Partners

Integration  
Partners

Users/Clients

University

Companies

City

# | **Appendix:** Our Process

# BUILDING CONTEXT: MIND MAPPING, STAKEHOLDER MAPPING, & SECONDARY RESEARCH DATABASE

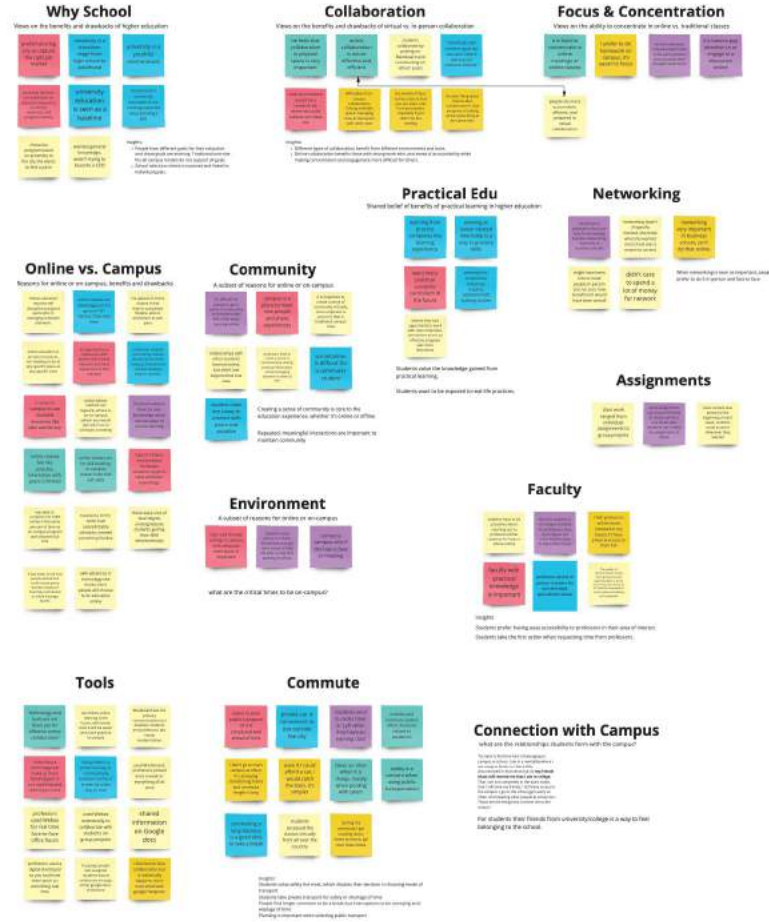


Topic	Abstract Summary	Source	Summary	Observations	Themes	Insights
Autonomous driving service	Waymo officially launches Alphabet's self-driving car service in Phoenix in December 2017	Forbes.com, The Verge, Silicon Business, etc.	This seems possible given the fact that there is a lot of new 'Waymo' vehicles on the road, and it's a very well-funded company. It's a good sign that the industry is starting to move forward. It's also a good sign that the industry is starting to move forward. It's also a good sign that the industry is starting to move forward.	With the fact of autonomous driving services, the sector for public transport is becoming increasingly interesting. It's a sign of a new era of mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility.		
Autonomous driving service	Fast has been building out its autonomous vehicle testing facility in Mountain View, Calif. since late 2016, and now has an autonomous vehicle fleet	Wired.com, TechCrunch.com, etc.	Fast has been building out its autonomous vehicle testing facility in Mountain View, Calif. since late 2016, and now has an autonomous vehicle fleet. This is a significant step towards autonomous driving. It's a sign of a new era of mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility.	Companies are trying to figure out how the technology fits in to the city. It's a sign of a new era of mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility.		
Mobility as a service	Fast and other major transportation companies that have traditionally been car companies are now offering mobility as a service	Wired.com, TechCrunch.com, etc.	Fast and other major transportation companies that have traditionally been car companies are now offering mobility as a service. This is a significant step towards mobility as a service. It's a sign of a new era of mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility.	Mobility is selling more vehicles to transportation services. It's a sign of a new era of mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility.		
Mobility as a service	Uber is now offering its own mobility as a service in several cities	Wired.com, TechCrunch.com, etc.	Uber is now offering its own mobility as a service in several cities. This is a significant step towards mobility as a service. It's a sign of a new era of mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility.	Companies are trying to create mobility ecosystems that require the city, government, and other stakeholders. It's a sign of a new era of mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility.		
Shared mobility ecosystem	Uber and Lyft are now offering shared mobility services in several cities	Wired.com, TechCrunch.com, etc.	Uber and Lyft are now offering shared mobility services in several cities. This is a significant step towards shared mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility.	Shared mobility services, car-sharing, and bike-sharing are becoming more popular. It's a sign of a new era of mobility. It's a sign of a new era of mobility. It's a sign of a new era of mobility.		





# BUILDING INSIGHTS: STUDENT & EXPERT INTERVIEWS AND AFFINITY MAPPING



## INSIGHTS

Increasing the **seamlessness** of people's commute reduces cognitive load, stress, and frustration.

Giving people the ability to customize their mobility gives them a valued sense of **control and choice**.

Individual **needs for physical interaction** change with the **mode of collaboration** (generative, informative, evaluative).\*

\* For generative collaboration, people prefer the physicality of face to face interactions.

Individuals are struggling to find easy **access and connection** with each other when **collaborating across distance**.

People find **collaboration tools** to be more effective when they are **socially desirable** (accepted and used by majority) rather than technologically robust.

**Campus relationships lie on a spectrum** of goal-oriented interactions to emotional interactions.

Students are comfortable **sharing their personal data**, but want an improved **college experience** in return.



## DESIGN PRINCIPLES

### Mobility:

- 1 Seamless Commute**  
Support and streamline the trade-offs people make around their commute.
- 2 Sense of Control**  
Provide customizable mobility options to create a sense of control.

### Collaboration:

- 3 Integrated Tools**  
Collaboration tools should be socially desirable not just technologically feasible.
- 4 Desired Interaction Mode**  
Design should align with people's desired interactions.
- 5 Behavioral Based Solutions**  
Leverage data to enable collaboration that plays to individual strengths.

### Smart Campus:

- 6 Optimizing user experience**  
Use data to optimize the user's experience on the campus.
- 7 Barrier Free Interaction**  
Design for collaboration should enable the immediacy of physical presence.



## IDEATION: WORKSHOP

### WORKSHOP STRUCTURE

**2** Teams

Approximately five participants on each team

**6** Experts

Four strategists from Infosys & two external

**4** Students

Two ID students & two external students

# TOOLS



# PERSONAS & SCENARIOS

**Team Members**

**Helping students collaborate for a research project**

**About the team work**

**Challenge**

**How can we help team members to share information and feel connected?**

# DESIGN PRINCIPLE CARDS

**Barrier Free Interaction:**  
Design for generative collaboration should enable the immediacy of physical presence.

**Desired Interaction Mode:**  
Design should align with people's desired interactions along a spectrum from goal oriented to relationship building.

**Seamless Commute:**  
Support and streamline the trade-offs people make around their commute decisions.

**User Experience:**  
Use data to improve/optimize the user's campus experience.

**Behavioral Based Solutions:**  
Leverage data to enable collaboration that plays to individual strengths.

**Integrated Tools:**  
Collaboration tools should be socially desirable, not just technologically feasible.



# EXPLORING IDEAS

PLANNING

PREPARING

MEETING

