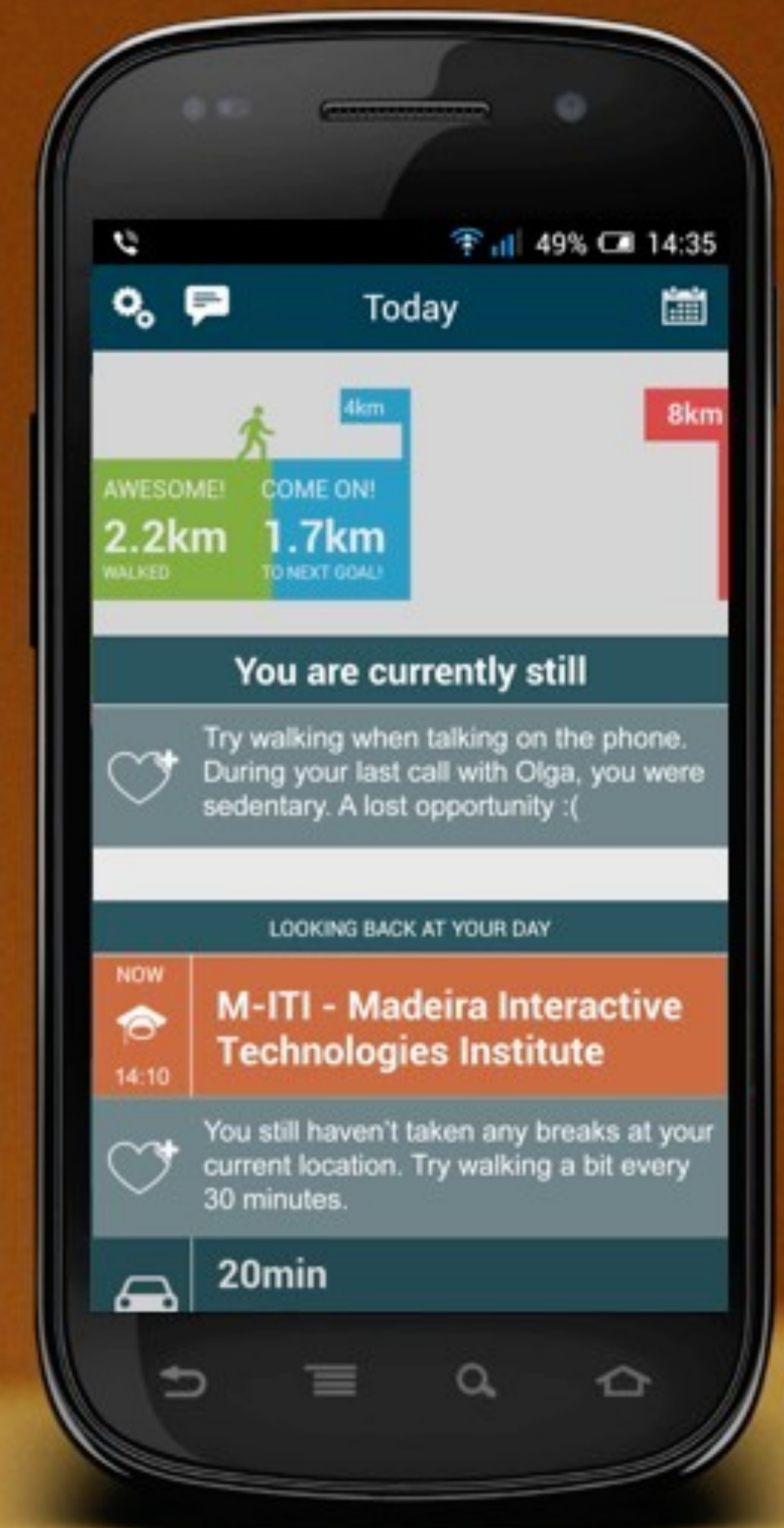
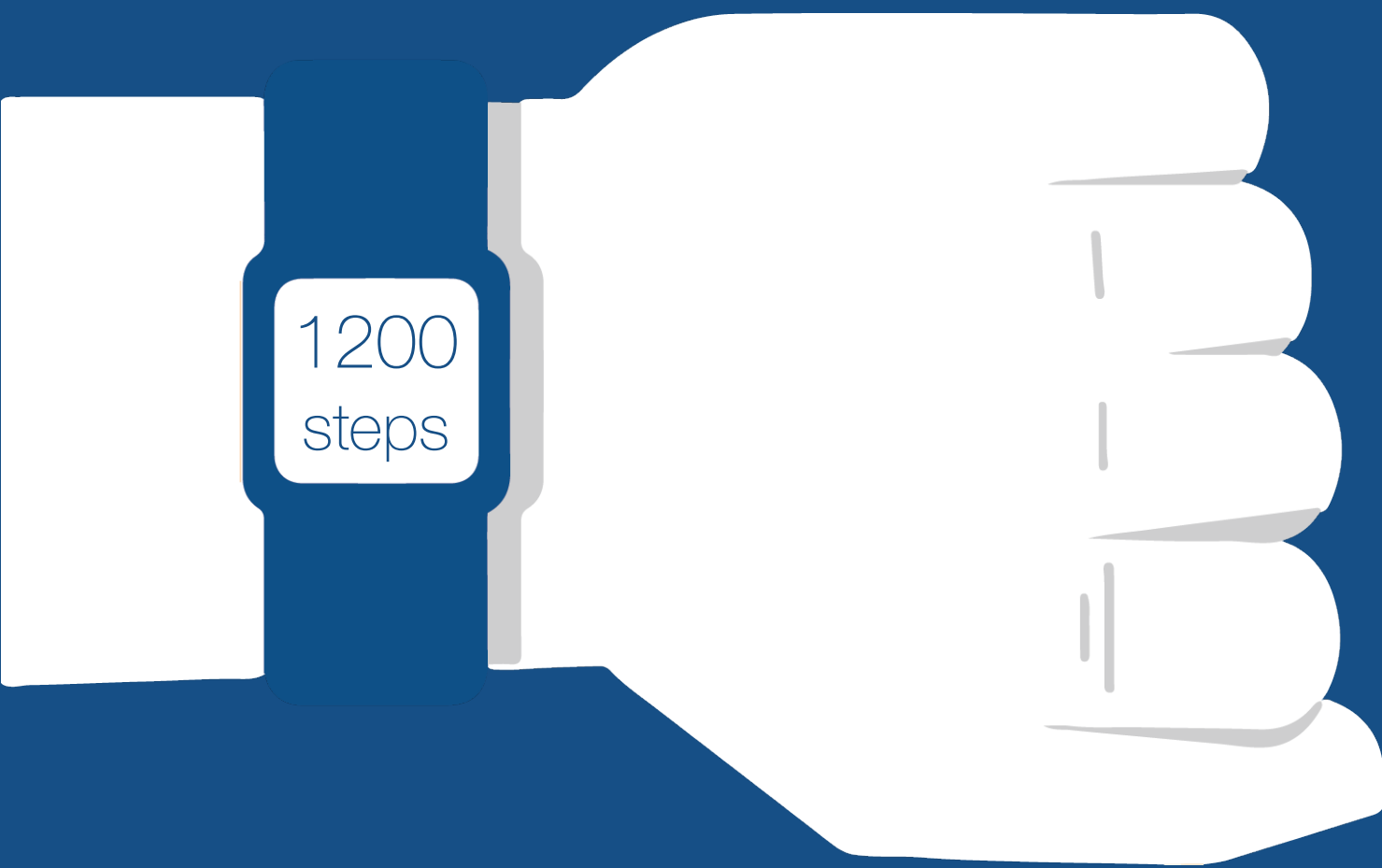


## How Are We Engaging With Activity Trackers? Lessons Learnt From a Ten-Month Study of Habito

Ruben Gouveia, Evangelos Karapanos & Marc Hassenzahl





Activity trackers have the potential of **encouraging physical activity**

Steps per day increased from **7,029** to **10,480** after 4 weeks of intervention.

Chan et al., 2002.





**1** in every **10** US adults has purchased an activity tracker for personal use

Hammond, 2014.



**One third** of these **stop using** their devices within **6 months** of receiving it.

Hammond, 2014.

do activity trackers create new practices up  
to a point they are **no longer necessary** or  
**fail to address users needs?**

inquiring into the **adoption, engagement**  
and **discontinuation** of activity trackers

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and **discontinuation** of activity trackers

**#1** look at the **frequency**, **duration**, and **nature** of users' engagement

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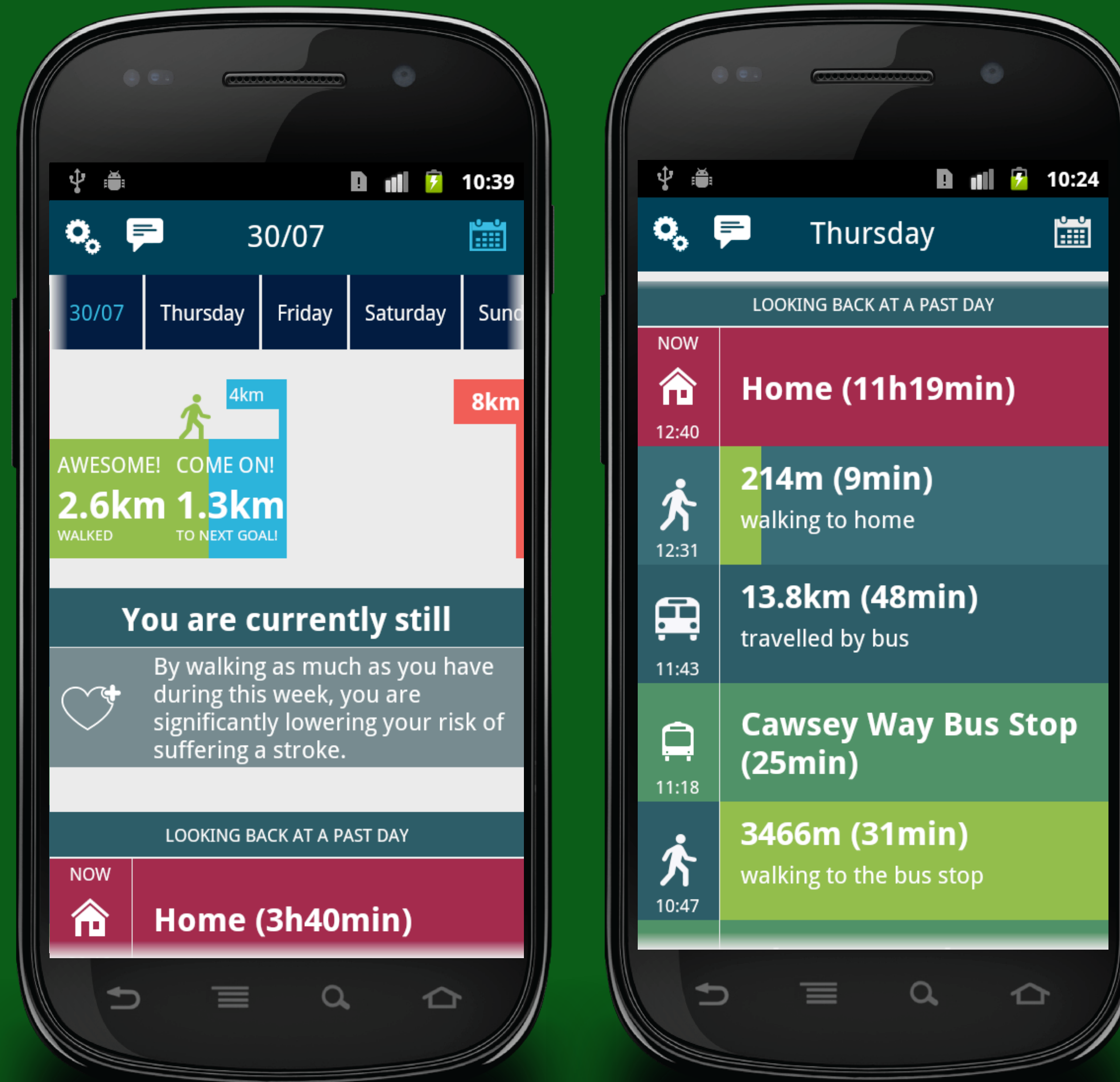
**#3** acquire a **long-term, naturalistic** estimate of adoption rates

inquiring into the **adoption, engagement**  
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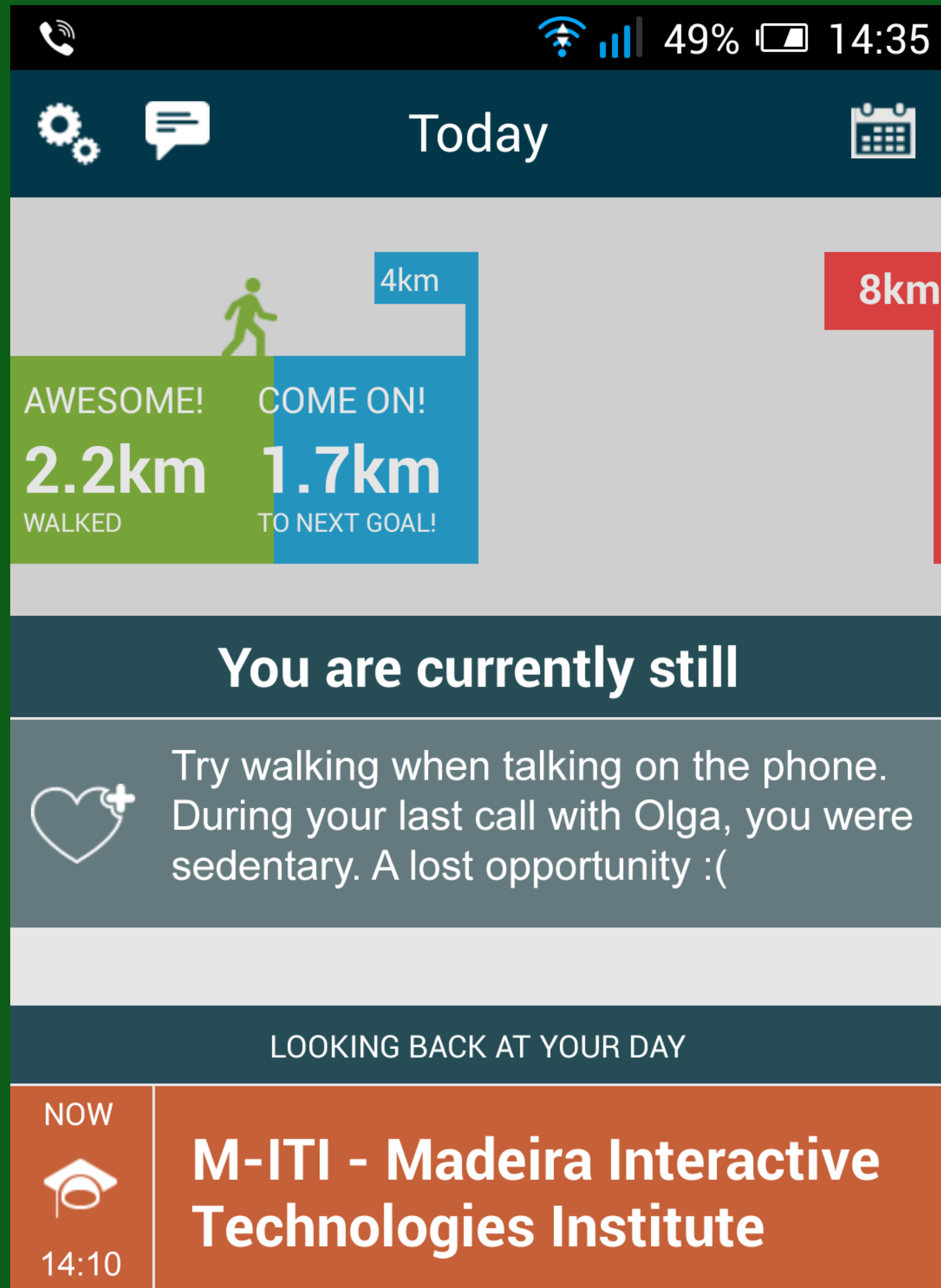
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*Habito*

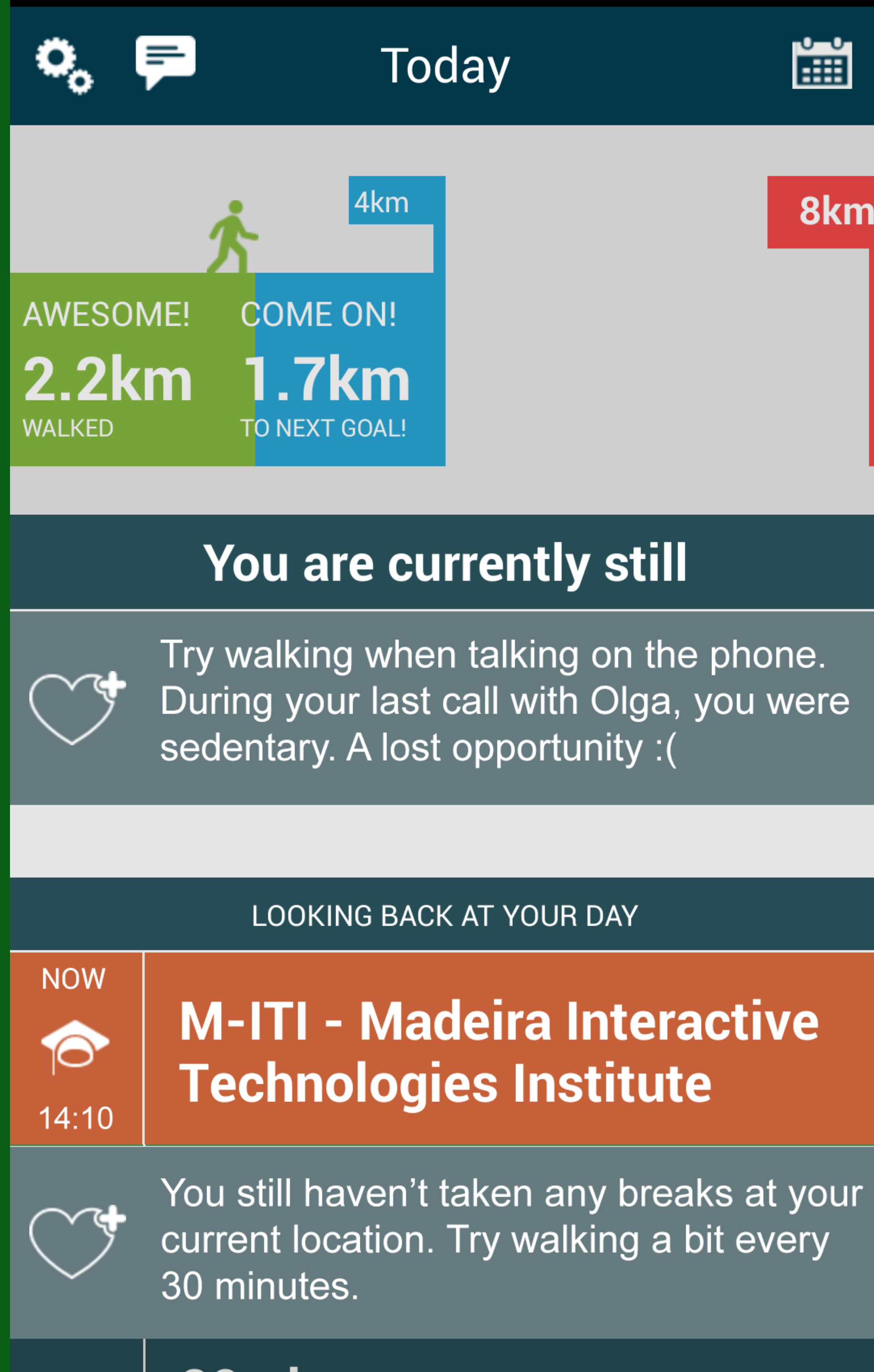


goal setting

how frequently do users update their goals?

do people with different goals engage differently?

how do people engage with their activity trackers as they progress towards their goals?



informational and  
persuasive messages

how many messages do users read per session?

how do informational strategies trigger action  
compared to persuasive?



## You are currently still



Try walking when talking on the phone.  
During your last call with Olga, you were  
sedentary. A lost opportunity :(

### LOOKING BACK AT YOUR DAY

NOW



14:10

**M-ITI - Madeira Interactive  
Technologies Institute**



You still haven't taken any breaks at your  
current location. Try walking a bit every  
30 minutes.



13:50

**20min**

travelled by car



13:47

**100m (3min)**

walking to the car

NOW



12:32

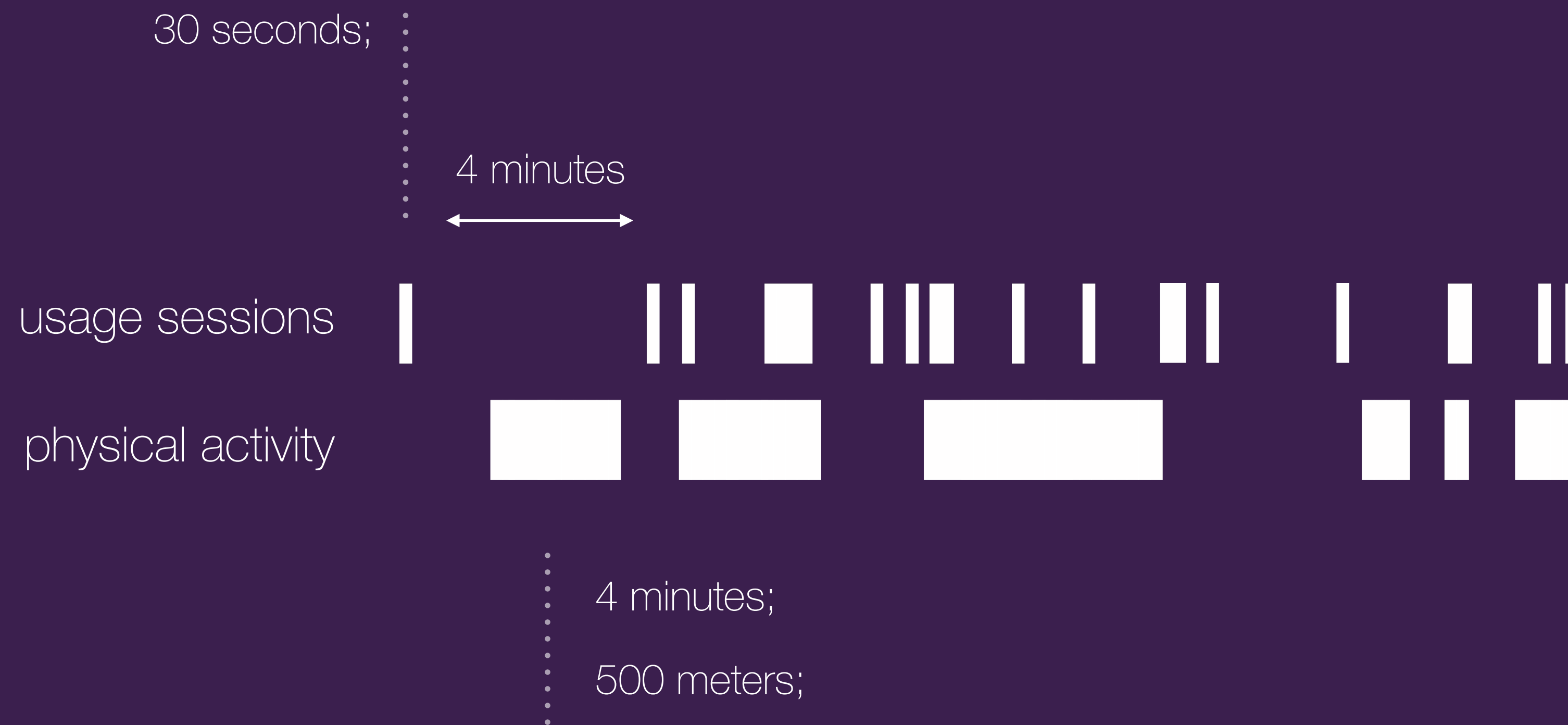
**Universidade da Madeira  
(1h15min)**

contextualising historical  
data through location

how frequently do people engage  
with their historical information?

**256 users** downloaded Habito over  
the course of **10 months**

none of these users were recruited or rewarded towards usage



# **stages of behavior change questionnaire**

understanding how different stages of 'readiness' impacted adoption

**precontemplation** currently have no intention of being active

**contemplation** not active but intend to be soon

**preparation** trying, but not regularly active

**action** regularly active, but for less than 6 months

**maintenance** regularly active for 6 months or more

# stages of behavior change questionnaire

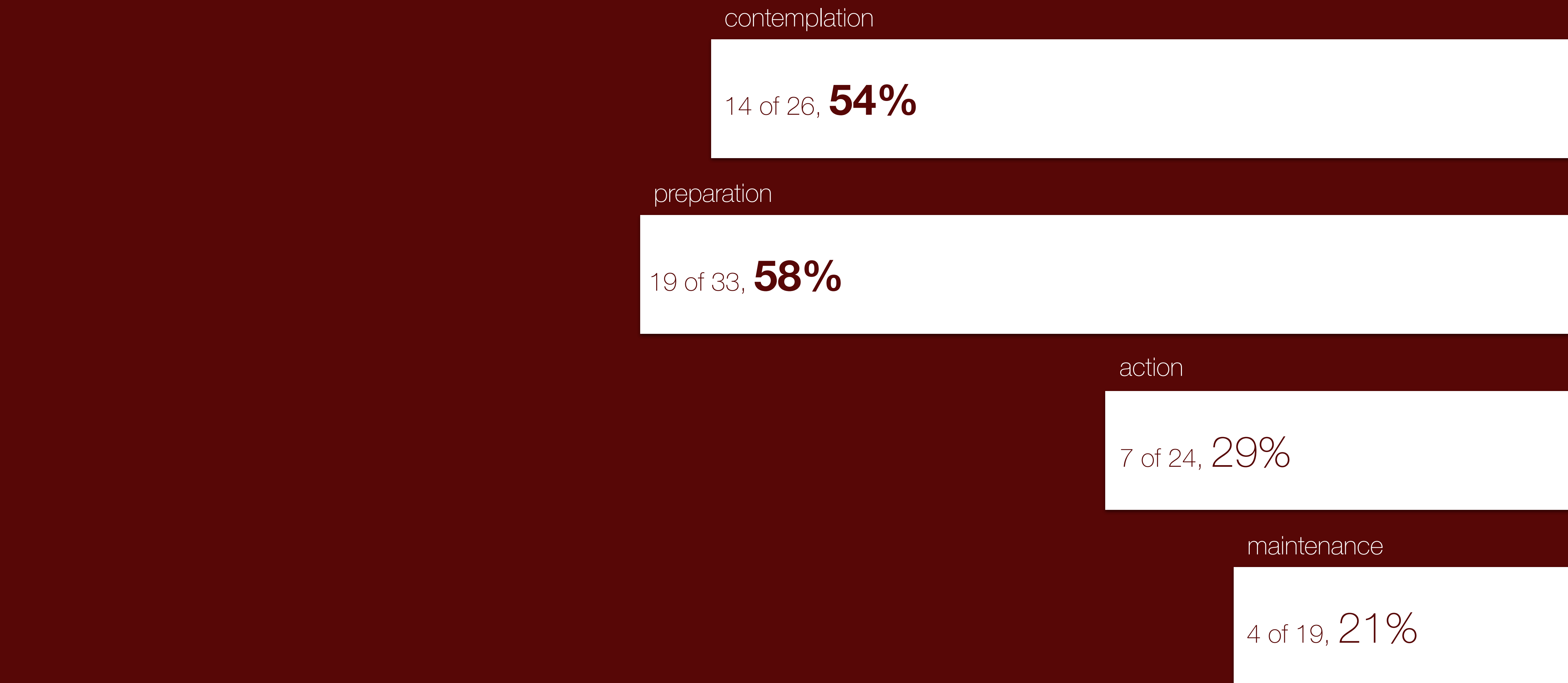
understanding how different stages of 'readiness' impacted adoption



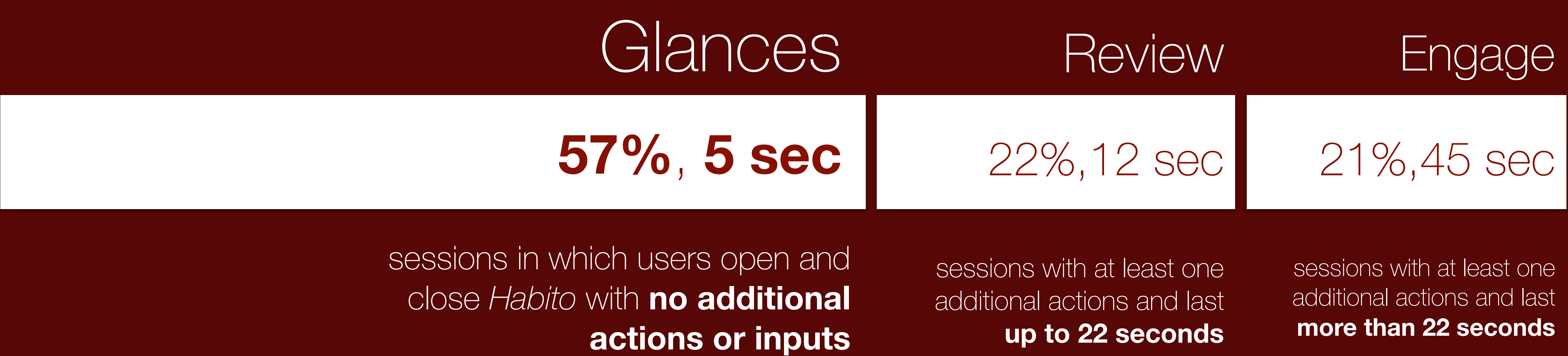
**62% (159)** stopped using Habito  
within their **first week of use**

97 adopters, which used the app for more than a week

# Readiness for use: motivation and adoption



# Usage sessions



Usage sessions

Glances

Review

Engage

73%

18%

9%

Usage sessions

historical information was only accessed  
in **30%** of all usage sessions

even more, 87% of these concerned an ongoing day



Design strategies

Only **31%** of users **updated** their  
**preset goal** of 1000 steps

**novel** content **prolongs engagements**  
and **brings users back quicker**

	<b>Recurring</b>	<b>Novel</b>
session duration :	7sec	<b>15sec</b>
time to next session :	21min	<b>13min</b>

dual nature of persuasive messages: **short-term change**, yet **aversion** and **reactance**

	Informational	Persuasive
time to next walk	38min	<b>29min</b>
distance walked to next session	203meters	<b>359meters</b>
session duration	<b>13sec</b>	7sec
time to next session	<b>13min</b>	22min

implications for design

designing for different levels of readiness

current trackers work at intermediate stages of behaviour change, where users have the intention but not the means to change, but they only represented **50% of our population**

strategies for remaining stages is still a pressing question

implications for design

designing for different levels of readiness

increasing **self-efficacy** and **competence** of people in initial stages of behaviour change



implications for design

designing for playful goal setting

enforcing goal setting can create unrealistic goals

**playful goal setting** to help people reflect upon their  
goal-setting practices

implications for design

designing for sustained engagement

keeping a minimum of engagement with trackers is important.

creating **checking habits** with activity trackers

implications for design

designing for sustained engagement

supporting **novelty** into tracking feedback: information  
gratification leads to **quicker re-engagements**

implications for design

designing for sustained engagement

supporting **just-in-time** comparisons as a means to support checking habits



CatchUp: **just-in-time** comparisons



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