

# A study to understand Emotion and Status Sharing in Remote Knowledge Work Teams

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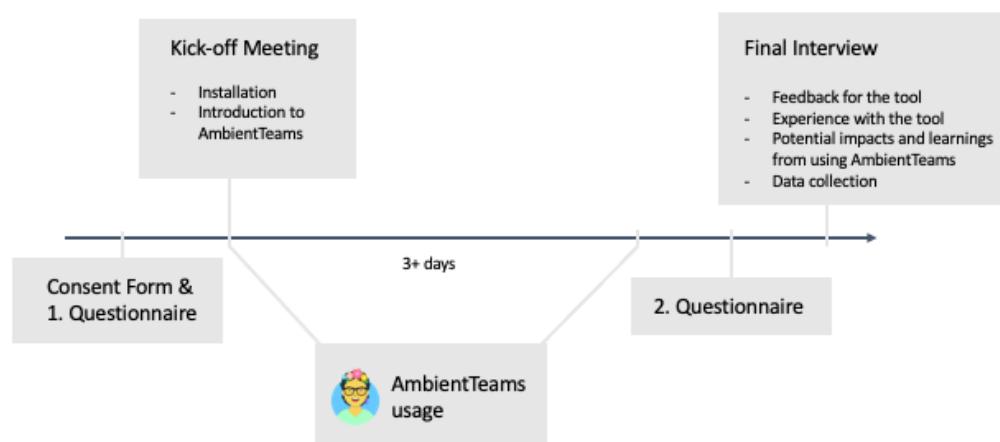
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## Introduction

Common challenges of remote work include the feeling of not belonging to a team and feeling lonely, not knowing who to turn to in case of a problem, or not knowing what others are working on. While the latter has received a lot of attention in previous research, the existence of tools focusing on the social challenges of remote work is still lacking. By sharing moods and status messages, or more generally, fostering informal communication, team members can develop more personal relationships and teams feel more connected despite the distance. For this reason, we developed AmbientTeams, a research prototype which with we want to better understand social interactions within teams working remotely.

## Study Overview



## Study Procedure

Overall, the study spans across at least 3 workdays and consists of the following three steps:

1. A **kick-off meeting** where the study is explained and the opportunity for questions is given. **Before attending the kick-off meeting you are kindly asked to fill out a short questionnaire** on demographics and your work (taking about 5 minutes to complete). To submit this questionnaire, you will be given a pseudonym with which you will be identified with during the study. After the study is explained and there are no more questions regarding the consent form or other topics, you will be asked to install the application on your work computer. Upon successful installation, you will join the team and the main functionality of the application is explained by one of the researchers running the study.
2. During at least three workdays, we will ask you to **continue to work as usual with AmbientTeams running on your computer**. While running AmbientTeams, you are completely free in how and how often you use of the application.
3. At the end of the study we will ask you for feedback about how using **AT impacted your work** and productivity. Similar to the kick-off, we will kindly ask you to fill out another questionnaire prior to that meeting. In the **interview**, you will be asked to export the locally stored data and explanations will be given on how the data can be obfuscated before uploading it to a secure drop-folder. All in all, the final interview will not take longer than 30-45 minutes.

## Installation (optional before the kick-off meeting)

*TL;DR*

Installation MacOS: <https://vimeo.com/563689368>

Installation Microsoft Windows: <https://vimeo.com/563689849>

### MacOS

1. Download from <https://ambientteams.ifi.uzh.ch/releases/AmbientTeams-0.9.1.dmg>
2. Drag icon into applications folder
3. Open AmbientTeams
4. You will be asked to give AmbientTeams permissions for
  - Microphone: Required for making voice calls
  - Camera: Required for making video calls
  - Accessibility: Required for retrieving information about the currently active window
  - Screen Recording: Required for retrieving information about the currently active window
5. Grant the permissions and restart AmbientTeams
6. Please check the following file: /Users/{your user name}/Library/Application Support/ambientteams/localDb/activeWindows

**If the file is not empty, everything worked! All the remaining steps will be done together with us in the kick-off meeting.**

### Microsoft

1. Download from <https://ambientteams.ifi.uzh.ch/releases/AmbientTeams-Setup-0.9.1.exe>
2. Please select "keep" on the downloaded file

3. On the following popup, please select "show more" and "keep anyways" (this is because the application is not signed on windows due to very expensive code signing certificates)

4. Chose "more info" and then "run anyways"

5. Plase navigate to the following file:

%USERPROFILE%\AppData\Roaming\ambientteams\localDb\activeWindows

**If the file is not empty, everything worked! All the remaining steps will be done together with us in the kick-off meeting.**

Note: To quit AmbientTeams completely on Microsoft Windows, you have to click "exit" in the system tray

## **Additional Information**

### **What if someone wants to join after the study has started?**

Should anyone be interested in also participating in the study (and has not been in the kick-off) during the first day of the study, he/she is welcome to join. However, I kindly ask you to inform me beforehand.

### **Troubleshooting**

In case you face an issue with AmbientTeams, either reach out directly to us (dario.bugmann@uzh.ch), or first try the following steps:

1. Refresh the window (either via keyboard shortcuts: macOS: cmd + R, windows: CTRL + R, or via right-click inside the team overview window)

2. Quit and restart application (macOS: cmd + Q or in the Menu Bar, windows: exit via system tray)

3. Clear local storage (team overview window → click on your avatar in the top right corner → "Clear storage")

Note however that this step will **delete** your favourite teams, color and device settings, and the team member selection displayed in the ambient window.

4. If none of the above helped, contact me via email (ideally with a screenshot and/or your exported logs (settings→ "Open logs")) at dario.bugmann@uzh.ch.

### **If you have a question**

Don't hesitate to contact us via email (dario.bugmann@uzh.ch) or MS Teams (dario.bugmann@uzh.ch).

### **In case you find a bug**

If you could write an email to dario.bugmann@uzh.ch, ideally with attached screenshots or even logs, that would be highly appreciated.

### **In case you have feedback (can be anything, really!)**

Simply click the "Feedback" button in the "AmbientTeams - Teams Overview" window.

Thanks for your help making AmbientTeams better! Please note that your user ID is stored with your message, so this feedback is not anonymous. This information is needed to contact you in case there is any ambiguity.

## Updates

AmbientTeams automatically checks for updates on application startup. Further, there is the option to manually check for updates in the settings.

Note: After the update has been downloaded, a restart of AmbientTeams is required (on windows the user must quit the application via the system tray) for the update to take effect.

## Export of locally collected data

At the end of the study (please don't upload before you received the email asking you to do so) you will be asked to export your locally stored data. To do so, please perform the following steps:

1. "AmbientTeams: Teams Overview" window: click on your avatar in the menu bar at the top right and select "Open Local Data"
2. Inside this folder you will find 4 files:
  - 1) windowActions: all the window actions (timestamps of when you opened, closed, minimised, or restored windows of AmbientTeams)
  - 2) appUsage: timestamps of when you started and quit AmbientTeams
  - 3) teamChanges: timestamps when you switched teams inside the ambient window
  - 4) activeWindows: information about the active windows when AmbientTeams is running (see <https://github.com/sindresorhus/active-win> for more information)

- Check to see that you don't share any window titles/URL you don't wish. You are free to delete entries from the activeWindows files to protect your privacy.

- Zip the four files and name the archive in following way: {{your pseudonym}}.zip

Example: "P1234.zip"

- Upload zipped file to: <https://dropfiles.uzh.ch/dropzone/6dc8afbf>

## Data, Storage & Confidentiality

The following list only serves as a summary! You may find details in the consent form.

1. Your data is stored on a **server hosted at the University of Zurich** and will never leave the research group. This does not include the data under the section "Data collected by AmbientTeams", which is stored locally on your computer until you decide to upload the exported files.
2. Your anonymised data will be stored no longer than 5 years. Any identifiable data will be deleted after the project is published (if it is) and at the latest after 2 years.
3. Messages (both status messages and private messages) are not encrypted. We strongly advise against sharing confidential data within AmbientTeams.
4. Video and audio calls are end-to-end encrypted and are not recorded.
5. Your information will be kept confidential, but keep in mind that all of your colleagues / team members who use AmbientTeams can potentially see your status updates.