FREQUENTLY ASKED QUESTIONS - FAQ - EN

1) What is UXAPP?

UXAPP automatically evaluates user experience (UX) based on three elements: usability, effect, and user value.

It uses emotion recognition obtained from audio and video recordings of the user while they use a web or mobile digital product.

The user experience (UX) and its elements are evaluated based on the user experience evaluation model proposed by [anonymized].

2) Where can I find and install UXAPP?

UXAPP is available at our website uxapp.com.br. It is a project still under development, but if you want to try this app, just request a free invitation on our website. Then you can download and install UXAPP from here:
https://www.appsheet.com/newshortcut/f957e997-5459-46e9-ab42-d8d41236de32.

3) How can I use UXAPP?

The working process of UXAPP is straightforward.

- Firstly, the user installs the UXAPP from the appsheet.com store, logs in, and creates their first experiment following the steps in the APP.

- Next, the user creates a meeting in the Google Meet app, shares the screen using a digital product, and records the interaction. Make sure to record your audio, video, and the digital product's screen.

- Next, the user performs tasks or freely uses the product following the think-aloud protocol, which means thinking out loud and verbalizing their thoughts, feelings, and doubts.

- Then, the user shares the recording in our email account, inserts the shared link in UXAPP, and submits the experiment for analysis.

Now, wait for UXAPP to update the experiment status to the completed UX evaluation. You will receive an email from us with the link to the evaluated video.

4) What is the User Experience (UX) Evaluation Model?
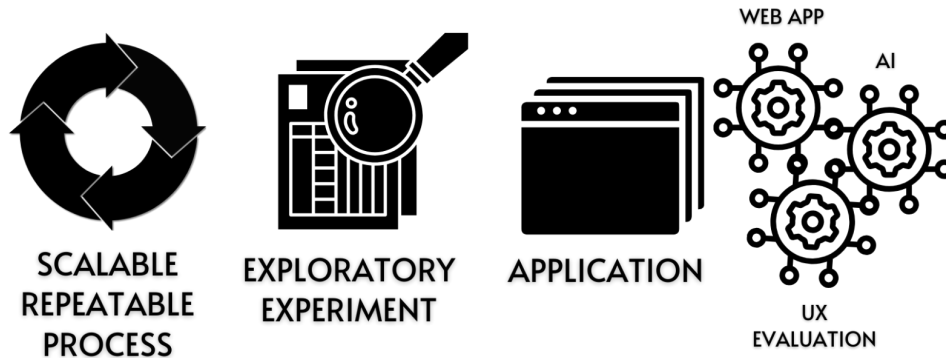
This model suggests a scale for evaluates each UX element and how it relates to emotion recognition obtained from user's audio and video.

The model is composed of a scalable and repeatable process, an exploratory experiment, and an application architecture with web app, AI component, and UX evaluation component.

You can access the model first version with user value evaluation in the paper below. The full user experience model is still to be published.

Access the paper: https://dl.acm.org/doi/10.1145/3629479.3629488

5) What is the theoretical background of UX Evaluation Model?

The User Experience (UX) Evaluation Model is based on over 60 references, but the main framework is provided by the work from Park et al. [1], from which we extract the image above, but also the works from Brooke [2], and Likert [3].

[1] Park, Jaehyun, Sung H. Han, Hyun K. Kim, Youngseok Cho, and Wonkyu Park.
Developing User Experience Elements for Mobile Phones and Services:
Survey, Interview, and Observation Approaches, July 2013.
ISSN 10908471. xii, 3, 18, 19, 22, 28, 50

[2] Brooke, John:
SUS: A quick and dirty usability scale
Usability Eval. Ind.. 189, 1995.
https://www.researchgate.net/publication/228593520. 13, 21, 22, 28

[3] Likert, Rensis:
A technique for the measurement of attitudes.
Archives of psychology, 1932. 10, 21, 54.

6) What are the main concepts of User Experience (UX)?

User Experience, in the context of products and services experiences, can be defined as "an overarching experience that consists of all aspects of users' interaction with a product or service" [1].

User experience is related to the "experience context", a set of elements that form the experience. If any element of this set changes, then the experience will be different. This set is made up of person, event, environment, and point in time [2].

It can be said that "an individual experiences an event (i.e., action) through a specific medium at a particular point in time". [2]. The user experience is composed by [1]:

- Usability: is defined as "the effectiveness, efficiency, and satisfaction with which specific users can achieve specific objectives in specific environments".
- Affect: is considered "as an emotion that is a consequence of interaction with a product or service".
- User value is defined as "a subjective value that the user attributes to a product. Value can be related to how significant the user thinks the product is in their life".

[1] Park, Jaehyun, Sung H. Han, Hyun K. Kim, Youngseok Cho, and Wonkyu Park:
Developing User Experience Elements for Mobile Phones and Services:
 Survey, Interview, and Observation Approaches, July 2013.
ISSN 10908471. xii, 3, 18, 19, 22, 28, 50

[2] Gahler M., Klein J.F., Paul M.
Customer Experience:
 Conceptualization, Measurement, and Application in Omnichannel Environments
(2023) Journal of Service Research, 26 (2), pp. 191 - 211.
DOI: 10.1177/10946705221126590

7) What is the User Experience (UX) Evaluation Model Process?

The following image illustrates the User Experience (UX) Evaluation Model Experiment.

Process Flow

Row 1:

The user accesses Google Meet → The user access UXAPP → The user identifies himself/herself → The user reads and accepts the service's terms of use → Terms of use are stored → The user informs experiment data

Row 2:

The user reads the orientations about think-aloud protocol → The user accesses the digital product to be tested → The user shares screen and records the meet → The user uses the produ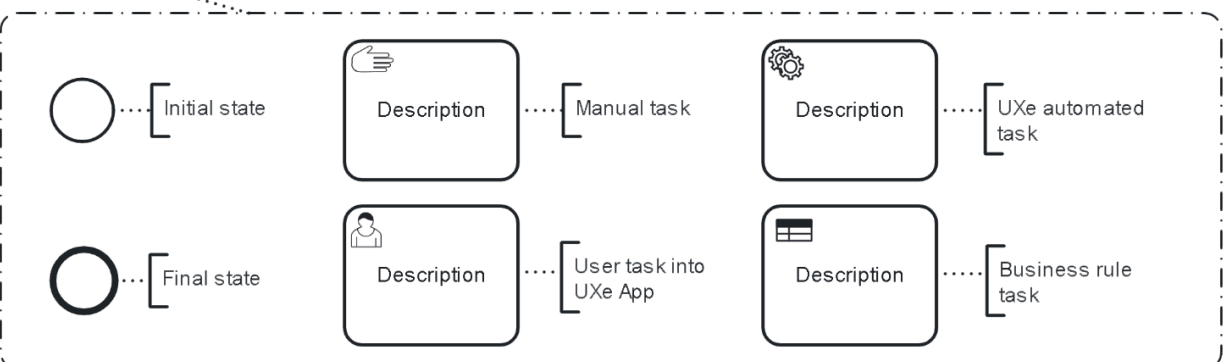ct following think-aloud protocol → The user informs and registers the task's end → The user explains what he/she thinks and feels about the product

Row 3:

The user stops recording and screen sharing → The user informs whether he/she achieved the task goal → The user answers SUS questionnaire → The user informs your emotional state → The user informs the negative and positive peaks of satisfaction → The user answers satisfaction's level

Row 4:

UXAPP evaluates emotional usability → UXAPP evaluates user's emotional state (affect) → UXAPP evaluates emotional user satisfaction (user value) → UXAPP evaluates digital product's User Experience → UXAPP presents video with emotional evaluation over time → UXAPP presents report with manual and emotional evaluation

Annotations:

- UXAPP evaluates emotional usability: Measurement of usability based on the sentiment analysis of user's speech and sentence similarity with SUS questionnaire.

- UXAPP evaluates user's emotional state (affect): Assessment of user's emotional state based on sentiment analysis of user's speech and visual emotion recognition

- UXAPP evaluates emotional user satisfaction (user value): Measurement of satisfaction based on the intensity and valence of emotions.

- UXAPP presents video with emotional evaluation over time: It shows the digital product's positive, negative, and neutral points.

Legend

- ⭕ Initial state
- ⚫ Final state
- ✋ Description — Manual task
- 👤 Description — User task into UXe App
- ⚙ Description — UXe automated task
- ▦ Description — Business rule task
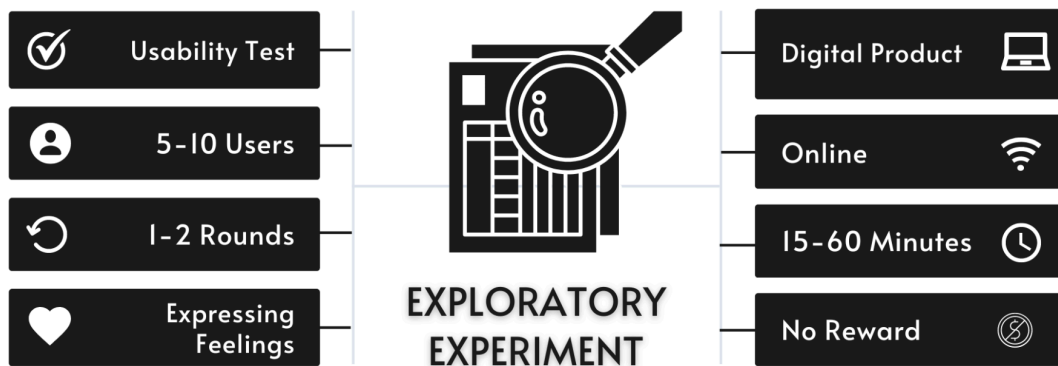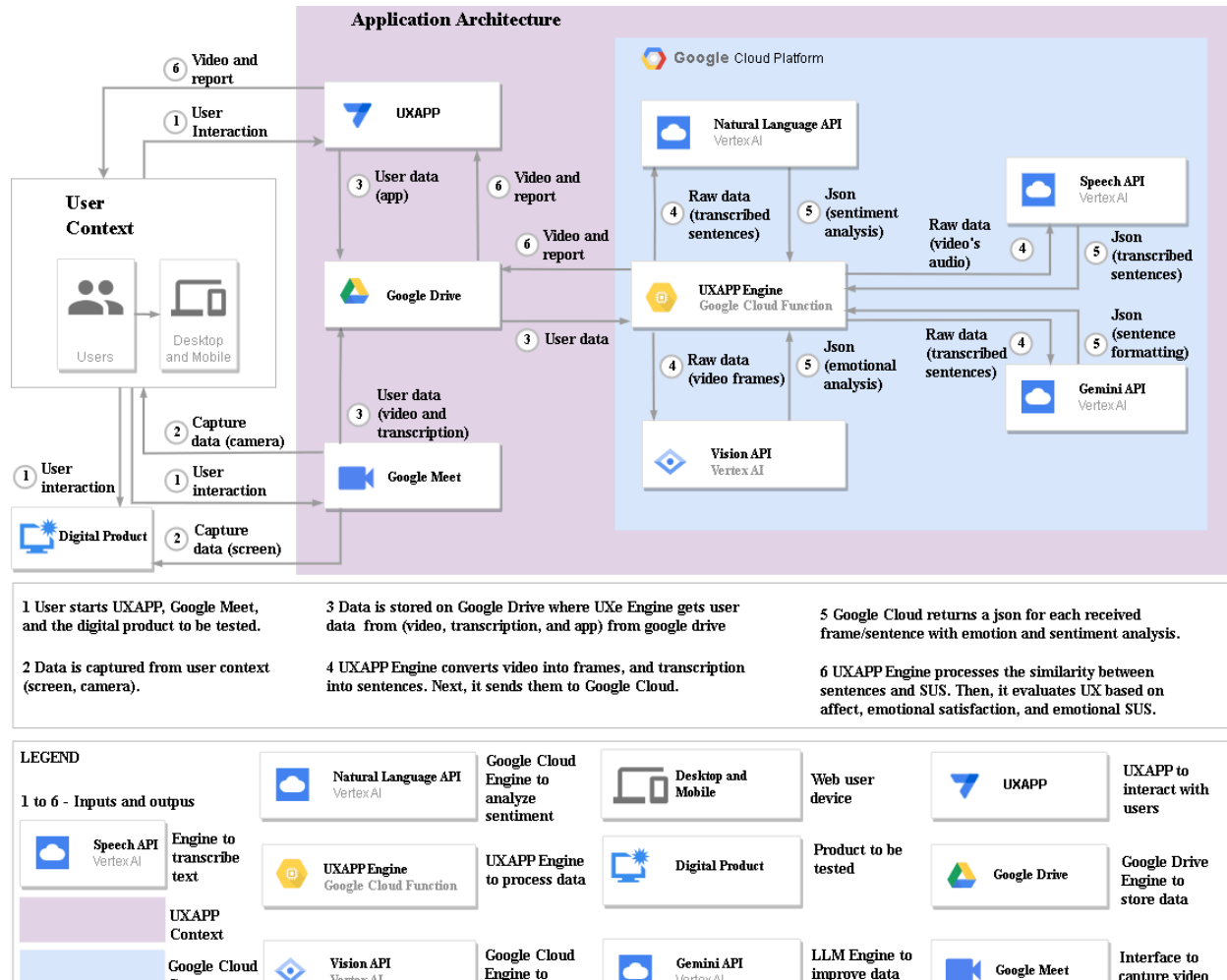
8) What is the User Experience (UX) Evaluation Model Experiment?

The following image illustrates the User Experience (UX) Evaluation Model Process.

☑ Usability Test		Digital Product 💻
👤 5-10 Users	EXPLORATORY EXPERIMENT	Online 📶
🔄 1-2 Rounds		15-60 Minutes 🕐
♥ Expressing Feelings		No Reward

9) What is the User Experience (UX) Evaluation Model Architecture?

The model uses Google Cloud to implement UXAPP. The frontend makes use of APPSHEET environment, the UXAPP engine runs as a Google Function API and it consumes several AI products. Google Workspace tools supports UXAPP with user interface services. The following image illustrates the User Experience (UX) Evaluation Model Architecture.

Application Architecture

1 User starts UXAPP, Google Meet, and the digital product to be tested.

2 Data is captured from user context (screen, camera).

3 Data is stored on Google Drive where UXe Engine gets user data from (video, transcription, and app) from google drive

4 UXAPP Engine converts video into frames, and transcription into sentences. Next, it sends them to Google Cloud.

5 Google Cloud returns a json for each received frame/sentence with emotion and sentiment analysis.

6 UXAPP Engine processes the similarity between sentences and SUS. Then, it evaluates UX based on affect, emotional satisfaction, and emotional SUS.

10) What is UXAPP's privacy policy and terms of service?

You can find our privacy policy at this link: https://uxapp.com.br/privacy-policy/ and our terms of service here: https://uxapp.com.br/terms-of-service/.