EUROPEAN COMMISSION
Directorate-General for Communications Networks, Content and Technology

CNECT.E – Future Networks
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WP5 - Introduction to each delivered document

Project 101136078 — Fediversity

Introduction

Overview

The WP5 - Enhancement & Usability (OID) work package focuses on improving the usability and user experience (UX) of the Fediverse by incorporating a User-Design-Driven Development (UDDD) approach. Usability remains a challenge for users when joining and staying in the Fediverse. To address this issue, WP5 aims to improve the Fediverse's technology and user experience by identifying user requirements, designing a consistent and accessible UX, conducting usability studies, and iterating designs based on feedback.

Objectives

The key objectives of WP5 are as follows:

- **Ascertain User Requirements (OID):** To improve the user experience of the Fediverse, we first need to know what users would like to see changed. We will collect information from the community about current hurdles for (new) users. Additionally, researching accessibility features to enhance the usability of the platform for users with disabilities (which includes older adults) is an essential consideration in improving the UX design. The outcome may be that we need different designs to cater to various user groups.
- **Build UX Design (OID):** With the user requirements, we will start designing the initial UX for this task. We want consistency across different applications.
- **First Implementation of UX Design (OID):** After our test panel approves the design, we implement it. We take special care to ensure consistency across all platforms and devices for a seamless user experience.
- **Conduct and Analyze User Studies (OID):** Through in-person tests, we will validate the usability of the changed UX design with representative users to determine whether users are encountering usability issues. We will use open-source (NGI-funded!) privacy-friendly analytics tools—such as GoatCounter and Offen—to assess the effectiveness of the new designs. We will also closely monitor user feedback, which we will document in a final report.
- **Setup UX Design Test Lab (OID):** To ensure designs work on all relevant recent devices, a test lab will be set up to allow testing of real-world usage. Testing is an integral part of each phase in

this work package.
- **Adjust Design for Final Release:** Based on the outcome of the user studies, we will iterate over the design and make a final 1.0 release.

Open Source, Open Standards, Open Dependencies

All software used, produced, or needed by our project and its outcomes will be licensed under a valid Open-Source license. Software licenses will not be encumbered by patents unless covered under the Open Invention Network, and APIs or services that are not reproducible will not be used entirely free. The only exception is for the UX design test-lab environment, which will ensure maximum interoperability with closed-source but widely used systems and software (like operating systems and web browsers).

Methodology

User-Design-Driven Development (UDDD)

UDDD is a human-centered approach that places end-users at the core of the design and development process. Unlike traditional software engineering methods, where usability is often a secondary concern, UDDD ensures that:

1. User Needs Define System Requirements: Instead of fitting users into pre-defined functionalities, features emerge from actual user workflows and pain points.
2. Iterative Design & Testing: UX is continuously validated through user testing and feedback loops, leading to frequent refinements.
3. Collaborative Approach: Developers, designers, and stakeholders work closely with end-users to create a user-friendly experience.
4. Empirical Validation: Design decisions are driven by data, usability metrics, and real-world usage rather than assumptions.

By adopting UDDD, WP5 aims to develop a product that aligns with real-world needs, reduces cognitive load, and enhances user satisfaction.

Glossary

- **User Experience (UX):** The overall experience of a person using a product, including ease of use, efficiency, and satisfaction.
- **Usability:** The degree to which a system is easy to learn, efficient, and satisfying for the user.
- **Wireframe:** A low-fidelity design that outlines the structure and layout of a user interface.
- **Prototype:** An interactive representation of a design used to test and refine usability before development.
- **A/B Testing:** Comparing two versions of a webpage or interface to determine which performs better in user engagement.
- **Heuristic Evaluation:** An inspection method where experts identify usability issues based on established principles.
- **Cognitive Load:** The amount of mental effort required for a user to complete a task within a system.
- **Iterative Development:** A process where design and development undergo multiple refinement cycles based on user feedback.

References

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