We redesigned an app that **connects blood donors** with **hospitals**, and made it **measurably better** at keeping donors engaged, satisfied, and **saving lives.**

How to Save a Life with Good UX

UX Design for Volunteer Applications: The Case of LifePulse, a Blood Donation App

Panagiotis Karadaglis, *UX Designer and Founder of LifePulse NGO*
Dr. Christos Katsanos, *Associate Professor @AUTh*

life pulse

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Research Objective

Sustaining engagement is a challenge shared across volunteer-based applications. This project investigates how targeted UX improvements can enhance usability, efficiency and engagement in volunteer platforms, using LifePulse- an app that promotes voluntary blood donation- as a case study.

Methodology

A new version of LifePulse (V2) implemented UX enhancements inspired by literature, best practice, and other volunteering applications.

31 participants completed a set of representative scenarios on both versions, in random version and scenario order:

- **S1:** responding to a donation request,
- **S2:** interacting with post-donation features (gamification and progress tracking),
- **S3:** locating nearby donation needs

Performance was assessed through:

- Quantitative usability metrics: task completion rate, time on task, and error rate
- Qualitative feedback: open-ended questions and the User Experience Questionnaire (UEQ).

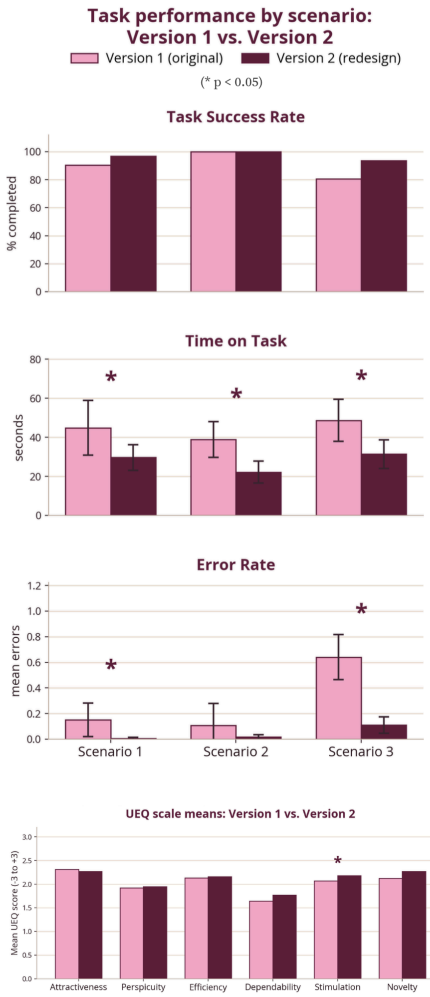
LifePulse Today

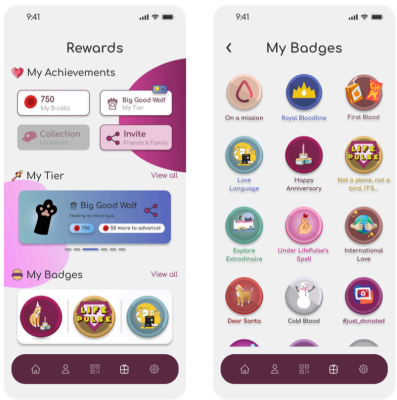
In operation	**1 year**
Active users	**~2000**
Partner hospitals	**1**
Donations enabled	**39**

Findings

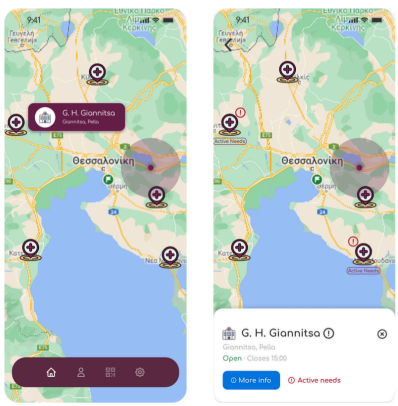
LifePulse V2 vs V1:

- Task success rate remained high in all 3 scenarios.
- Time on task significantly decreased in all 3 scenarios.
- Error rates significantly decreased in 2 scenarios.
- UEQ Stimulation's score significantly improved.
- Novelty and Dependability showed the largest, but still non-significant, increase.





The new Gamification page, with points, tiers, and missions, behind the significant improvement in Stimulation.



Hospital map, before (left) and after: an "Active Needs" indicator now lets users instantly spot which hospitals need donations, behind Scenario 3's drop in Time on Task and Error Rate.

Conclusion & Future Work

This work offers transferable design principles for other volunteer-driven platforms facing retention challenges.

Longer-term research should track how engagement with gamification and interactive notifications evolves over time, and extend testing beyond this study's young sample to include older adults with different usability expectations.