

PhD Subject

Towards a Methodology for Co-constructing Digital and Sociotechnical Commons in Social Organizations

From Individual Frustrations to Collective Commons -- Application to the UTTOP Campus

Context and Ambition

Supported by funding from the Occitanie Region and the NUTTÉO program of UTTOP (SYMBIOSIS project), this PhD will explore how to design, experiment with, and sustain digital and sociotechnical commons -- that is, shared resources (platforms, tools, data, practices) collectively managed by a community according to rules it defines (internal information systems, collaborative workspaces, shared knowledge bases...).

Our experimental field is UTTOP (University of Tarbes Occitanie Pyrénées – <https://www.uttop.fr>), France's 4th technological university created in 2024. The challenge is to anchor research in the real experience of users: students, staff, teachers, and partners. Starting from daily irritants, the project aims to transform these obstacles into collective opportunities through a co-construction approach centered on user experience and continuous improvement.

This interdisciplinary project crosses information sciences, STS (Sciences and Technologies Studies), and technological design. This transversal approach is essential to understand commons in both their technical AND social dimensions. The project can build on the foundational work of Ostrom (1990) on commons governance, enriched by Hess & Ostrom (2007) for knowledge commons, and ethical approaches to digital technology (Stiegler, 2015; Rouvroy & Berns, 2013).

The long-term ambition is to create a reproducible methodology for co-constructing digital commons for other organizational contexts.

Methodological Principles

The co-construction methodology will be developed according to an iterative logic inspired by continuous improvement methods such as the PDCA cycle (PLAN DO CHECK ACT). We have identified 3 actions that will be carried out during the PhD (see Figure 1):

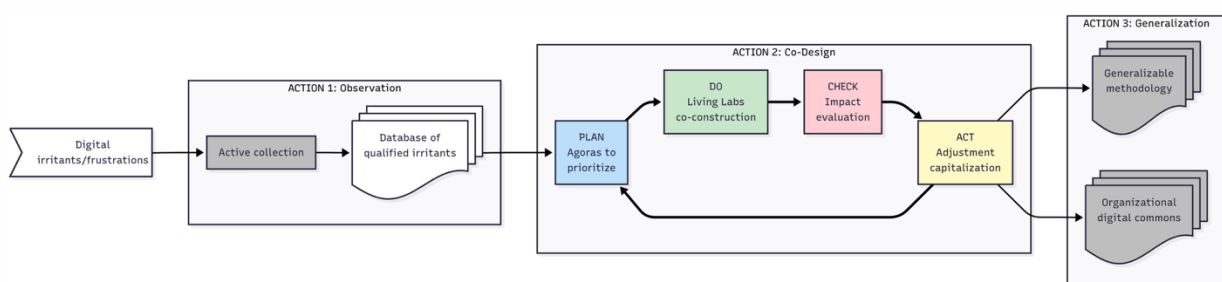


Figure 1 - Methodological principle of co-construction through frustrations

Action 1 – Observation and Continuous Collection

Initiate a participatory dynamic by collecting frustrations and irritants (anomalies, inconsistencies, usage barriers). The following actions will be conducted:

- Deploy qualitative and quantitative survey methods within a strict ethical framework (GDPR, informed consent, ethics committee)
- Map, model, and share identified irritants and frustrations
- Mobilize the UTTOP community, and coordinate with services and steering committees related to the project (IT Services, management, DDRS)

Action 2 – Co-construction, Experimentation and Capitalization

Transform irritants identified in action 1 as priorities by the Agora into concrete use cases, co-constructed and tested, and capitalize these experiences in a Living-Lab logic with a methodology inspired by the PDCA methodology. The following actions are envisioned:

- Organize agoras (open exchange sessions) to explore systemic causes and choose solutions to prototype
- Establish multidisciplinary working groups (Living-Labs) to develop and test solutions
- Document, trace, model the knowledge engaged and mobilized
- Evaluate and capitalize at each iteration to feed the modeling action (feedback & lesson learned)

Action 3 – Consolidation and Generalization

Formalize organizational commons and a generalizable methodology based on concrete results through the actions:

- Extend experimentation according to results
- Define evaluation grids (CSR, QWL, functionalities, user experience, process quality, performance, representativeness and/or social acceptability)
- Formalize the methodology
- Disseminate results

Expected Results

This research plans to produce results articulating tool development, experimentation in real context and methodological formalization, contributing to the advancement of knowledge and its transposability.

- Deployment of an active collection system for digital irritants/frustrations
- Co-construction and evaluation of digital commons in real context
- Interdisciplinary scientific publications based on collection and experiments
- First formalization of an operational and transposable methodology
- Generalization perspective to other contexts.

Required Profile

The candidate must have training allowing them to understand both technical AND social issues. They should also have:

- Interest in action research and participatory design
- Taste for interdisciplinarity and co-construction
- Motivation for digital social innovation

Supervision and Work Environment

The PhD student will benefit from the support of a multidisciplinary team (61st and 71st sections) and a concrete experimental field within UTTOP. They will have an experimental posture, embodied in a local context, and be open to interdisciplinary theorization.

Direction: Laurent GENESTE (PR, CNU 61), Isabelle BAZET (MCF, CNU 71), Cédric BÉLER (MCF, CNU 61), Philippe MARRAST (MCF, CNU 71)

Located on the UTTOP campus in Tarbes (65), this PhD is based on a stimulating research environment and a unique context. UTTOP is the result of the recent merger between an IUT and an engineering school (ENIT) historically neighbors, once separated by a simple barrier. This human-scale campus, still developing, offers the opportunity to participate in an academic and territorial dynamic to be invented. Located in a pleasant and affordable medium-sized city, between the Pyrenees, nature and ocean, this location promotes a quality living environment and a concrete opening to the territory.

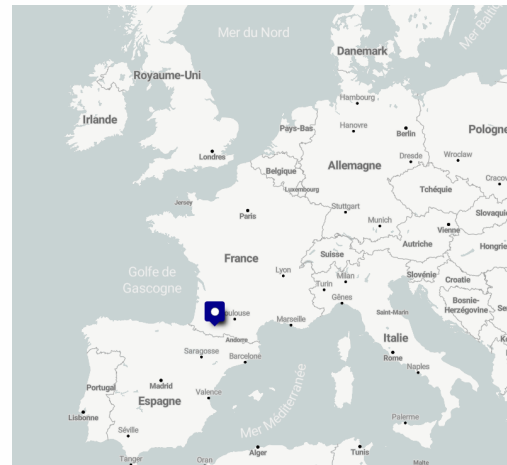


Figure 2 - UTTOP Localization

Salary: €2200 gross/month

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Application

Applications on a rolling basis. Please contact us as soon as possible to discuss your motivations and questions. Interviews will be organized by the end of August and eventually the first week of September to specify the match between your profile and the project

PhD start date: October 1st, 2025

Figure 3 – Contact QRCode

