

A Cooperative Business Model for a Local Tourism Platform

A case study of LocalWanderer in Rwanda and Uganda

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Extended abstract

An explorative mission was initiated in September 2023 in collaboration with the Global Mind Fund, the University of Rwanda and the Mountains of the Moon University in Fort Portal, Uganda, for the development of a cooperative digital platform 'LocalWanderer'. The goal of this platform is to intermediate between tourists and local organisations to boost sustainable tourism in the Lake Victoria region, with a primary focus on Rwanda and Uganda. With a web and mobile application, tourists can come into contact with local activity providers and book (community) experiences including hikes, bike rides, pottery classes, farming experiences, camping and homestays in an easy, efficient and trustworthy manner. Currently, the tourism industry is largely controlled by massive tourism agencies and corporations including Airbnb, TripAdvisor, and Booking.com. These companies hold significant power and charge large commission fees, thereby limiting support for local initiatives. Intermediation by a cooperative organisation between tourists and local activities can lower barriers and costs, and with a rating system trust can drive tourists to

local, less touristic places where local entrepreneurship can thrive (Acquier, Daudigeos and Pinkse, 2017).

As a first step, we choose an appropriate business model and developed a high level architecture of the envisioned platform using the digital platform taxonomy and ontology (Derave *et al.*, 2021, 2022b). After, we developed a first version of the responsible web application, a so called Minimum Viable Platform¹ (MVP) following the platform development method of (Derave *et al.*, 2022a). An MVP is a product with enough features to validate the digital platform idea with potential users and our partners in an early stage of development (Gracia, 2022). In a follow-up paper (Derave *et al.*, 2023) we describe the complete process of how these artifacts and methods are used in the development of the LocalWanderer MVP.

Despite the initial progress in developing methods and artifacts for digital platforms, there remains uncertainty about how to effectively integrate a cooperative structure into the MVP development process. No clear classification, taxonomy or architecture was found for cooperative structures in the digital platform domain. To address this, it's crucial to investigate and integrate cooperative principles within these digital platform artifacts, and ultimately in the Localwanderer MVP. Therefore, we need to consider the possible governance structure of digital platforms. A cooperative model suggests that local providers have a say in the platform's operations and development, possibly through a voting system or representation in the platform's decision-making body. This level of involvement would not only empower local communities but also ensure that the platform evolves in a way that aligns with their needs and values. Let's take the aspect of the financial model as an example; Unlike the Silicon Valley tourism platforms that charge high fees, a cooperative structure could implement a more equitable revenue-sharing model. This might include lower transaction fees for local providers or a system where a portion of the profits is reinvested into the local communities.

Hence, we intend to expand our research by concentrating on following research questions:

1. What types of cooperative platforms are currently available?
2. What business models are utilized by these cooperative platforms?
3. For a local tourism platform in Rwanda and Uganda, what specific type and business model would be most suitable?
4. How would the chosen platform type and business model influence the software architecture of the LocalWanderer MVP

For the first and the second research question, we plan to use the taxonomy development method of (Nickerson, Varshney and Muntermann, 2013). This method is a systematic approach for classifying and understanding complex domains by identifying their

¹ A first version of the LocalWanderer MVP can be found on createyourtrip.ugmarket.ugent.be

dimensions and corresponding characteristics and will be used in an iterative way based on a sample of existing cooperative platforms and literature. Therefore, a taxonomy of cooperative platforms could help in the effective comparison and benchmarking, identifying best practices and areas for improvement. The taxonomy could aid in strategic decision-making, fosters improved communication and collaboration between developers, potential users and other stakeholders by providing a common language for discussing platform types and business models. Finally, its adaptable nature ensures it remains relevant in the dynamic digital platform landscape, promoting continuous learning and innovation.

For the third and fourth research question, we rely on the taxonomy for the expansion of the Digital Platform Ontology (Derave, Gailly and Sales, 2023), a modular high-level architecture that aids in the development of envisioned digital platforms. Subsequently, we will use this enhanced taxonomy and ontology to validate their effectiveness through their application in refining the LocalWanderer MVP.

To implement these cooperative elements effectively, it will be necessary to engage in continuous dialogue with both potential tourists and local providers. Gathering feedback and conducting regular assessments will help in refining the MVP to meet the needs of all stakeholders. Moreover, partnerships with local NGOs or community groups could provide valuable insights and support in aligning the platform with local interests.

Overall, while the development of the LocalWanderer MVP has made significant progress, the successful integration of a cooperative structure demands a deeper understanding of the cooperative platform domain. Utilizing a taxonomy and ontology in this context aids in systematically classifying and defining the key concepts and relationships within the cooperative platform domain. This structured approach will not only improve the LocalWanderer application's functionality but hopefully also encourage the development of other cooperative platforms towards a more sustainable and equitable (tourism) industry in the Global South.

Keywords

Cooperative, Digital platform, Taxonomy, Minimum Viable Platform

References

Acquier, A., Daudigeos, T. and Pinkse, J. (2017) 'Promises and paradoxes of the sharing economy: An organizing framework', *Technological Forecasting and Social Change*, Elsevier, 125(xxxx), pp. 1–10. doi: 10.1016/j.techfore.2017.07.006.

Derave, T. *et al.* (2021) 'Understanding Digital Marketplace Business Models : An Ontology



Approach', in *POEM*, pp. 1–12.

Derave, T. *et al.* (2022a) 'A Method for Ontology-Driven Minimum Viable Platform Development', in *EMMSAD*, pp. 1–15.

Derave, T. *et al.* (2022b) 'Sharing Platform Ontology Development : Proof-of-Concept', *Sustainability*, 14(4), pp. 1–19. doi: <https://doi.org/10.3390/su14042076>.

Derave, T. *et al.* (2023) 'One Model to Rule Them All: A demonstration of ontology-driven minimum viable product development for a local tourism platform', in *ER 2023: OntoCom workshop*, pp. 1–13.

Derave, T., Gailly, F. and Sales, T. P. (2023) 'A Taxonomy and Ontology for Digital Platforms', *Information Systems*, pp. 1–58.

Gracia, C. (2022) *Your marketplace MVP – How to build a Minimum Viable Platform*. Available at: <https://www.sharetribe.com/academy/how-to-build-a-minimum-viable-platform/> (Accessed: 13 February 2023).

Nickerson, R. C., Varshney, U. and Muntermann, J. (2013) 'A method for taxonomy development and its application in information systems', *European Journal of Information Systems*. Nature Publishing Group, 22(3), pp. 336–359. doi: 10.1057/ejis.2012.26.