

UX Requirements Engineering for COSE Platforms: A Cultural Perspective

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Abstract

Cultural factors significantly influence both Requirements Engineering (RE) and Human-Computer Interaction (HCI), affecting how software requirements are elicited, specified, and translated into usable and useful interfaces. Despite this, existing research offers limited guidance on how to systematically integrate cultural insights into software engineering artifacts. Our approach combines conceptual mapping and practical prototyping to operationalize cultural insights into testable software requirements. In this work, we turn to Community-Oriented Sharing Economy (COSE) initiatives (e.g., makerspaces, food cooperatives, and libraries of things) as a case study to apply the proposed method. To frame the investigation, we reviewed major cultural frameworks and selected Hofstede's Theory of Cultural Dimensions [26] as the primary lens. We then mapped these cultural insights onto Bødker et al.'s affordance framework [9], given their role in supporting user participation and trust in COSE. As a main contribution, we present a method to translate cultural insights into Behavior-Driven Development (BDD) scenarios. We illustrate our approach through a practical example, which includes scenarios in the Gherkin language, visual interface representations, and step definitions in Python. These examples demonstrate how cultural factors can be converted into functional and testable requirements, supporting culture-sensitive software design. Additionally, the method helps improve communication between design and development teams by connecting user experience (UX) insights with technical requirements.

CCS Concepts

• **Human-centered computing** → **Human computer interaction (HCI)**; • **Software and its engineering** → **Designing software**.



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Sharing Economy, Community-Oriented Platforms, User Experience, Behavior-Driven Development, Translational Resource

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1 Introduction

Requirements engineering (RE) is an essential part of software development that ensures that resulted systems meet the real needs of involved stakeholders. Improper RE can jeopardize functionality, cost, and overall software quality [27]. A successful RE “requires intensive communication between requirements engineers and software stakeholders” to correctly elicit, validate, and refine requirements [7]. This requires not only comprehensive communication skills of software engineers but also an understanding of individuals’ behavior and culture [22].

The need to integrate cultural factors into RE has become widely recognized. Culture fundamentally shapes how people think, communicate, and prioritize their goals [7]. According to Hofstede’s definition, culture is the “collective programming of the mind that distinguishes members of one human group from another” [26]. This shows that different countries carry distinct values and communication styles. In RE, these cultural differences can profoundly influence outcomes. For example, Hanisch and Corbitt [22] note that the social and cultural aspects of RE “affect the success of software development and cannot be ignored”. Alsanoosy et al. [7] similarly conclude that “culture influences the way in which individuals communicate; therefore, RE activities could be strongly influenced by individuals’ cultures”. Thus, incorporating cultural requirements (features or behaviors reflecting users’ cultural values) has become an important RE challenge in global software projects [7].

Community-Oriented Sharing Economy (COSE) is an umbrella term for various resource sharing grassroots initiatives, cooperatives, and collectives that prioritize social cohesion, trust, and reciprocity among their community members. These

initiatives subscribe to principles of collaboration and collective benefit rather than predominantly commercial logics [39]. They go beyond the mere distribution of goods and services within the local communities they operate and strive for economic sustainability, solidarity, and community resilience [42, 47]. To support their operations, many COSE organizations employ technological solutions or even establish bespoke platforms to facilitate their everyday activities (e.g., inventory management, task distribution, and member communication).

COSE initiatives face significant challenges, especially regarding community engagement and building trust to foster their sustainable development and proliferation (e.g., [19]). These challenges become even more complex in the context of digitalization, which demands technological and design interventions capable of effectively supporting these organizations in their everyday tasks and practices.

Although there is a growing awareness of the importance of cultural sensitivity in (web) design [10, 25, 31, 35], the literature remains limited when it comes to the systematic integration of cultural factors in the development of COSE platforms. The nascent work of Yildiz and Altan [46] explored the role of culture in the sharing economy by analyzing cross-cultural studies on motives, attitudes, and theoretical approaches, reinforcing the broader need for culturally sensitive design approaches [2, 3, 29, 44] in COSE design [21].

A promising approach to integrating cultural factors into the design of COSE platforms is the use of methods that *translate* sociocultural knowledge into practical and actionable design requirements (e.g., [18]). In this context, co-design approaches [40] deemed sensible to be employed to incorporate cultural perspectives by integrated voices of multiple stakeholders into the design process. Within the context of COSEs, these approaches can be used to develop or enhance digital platforms, ensuring that the final solutions are culturally relevant, user-centered, and adaptable to local contexts.

Against this backdrop, we argue that explicitly encoding cultural requirements into platform design can help address the aforementioned challenges. By capturing culturally specific expectations (e.g., preferences for privacy, risk-taking, group norms), developers can design platform features that resonate with diverse user groups. In this work, we present a novel method to translate cultural insights, specifically Hofstede’s national cultural dimensions [26], into concrete Behavior-Driven Development (BDD) scenarios. BDD is an agile practice where requirements are written as concrete examples of system behavior from the user’s perspective. Our approach uses Hofstede’s theory (e.g. power distance, uncertainty avoidance, individualism vs collectivism, etc.) as a basis for generating BDD scenario templates that reflect cultural variations. To operationalize these templates, we adopt the *Scenario Outline* feature in Gherkin (<https://cucumber.io/docs/gherkin/reference/>), which allows executing the same scenario multiple times with distinct sets of values.

In this paper, we demonstrate this method using a fictional COSE platform as a case study. More specifically, in our context, our cultural BDD scenarios guide the design of features

related to trust and participation. By bridging cultural theory and executable requirements, our contribution provides a structured way to incorporate socio-cultural awareness into the design of COSE platforms.

2 Background

2.1 Cultural Influences on Requirements Engineering and Human–Computer Interaction

Hofstede’s model identifies six key cultural dimensions [26]: (1) Individualism vs. Collectivism, which describes whether people prioritize personal autonomy and self-reliance or group cohesion and loyalty; (2) Power Distance, which reflects how much a society accepts hierarchical power distribution as opposed to valuing egalitarianism; (3) Uncertainty Avoidance, indicating how comfortable a society is with ambiguity and risk versus preferring structure and clarity; (4) Success vs. Well-being Orientation, referring to the extent to which a culture emphasizes ambition, competition and material achievement or places greater value on quality of life, social support and collective welfare; (5) Long-Term Orientation, which captures whether a society values future-oriented planning, perseverance and delayed gratification or focuses on immediate results and tradition; and (6) Indulgence vs. Restraint, measuring the degree to which a society allows free gratification of desires, enjoyment and self-expression or emphasizes regulation of desires and self-discipline through social norms.

Prior work on cultural influences in requirements engineering examined how national culture impacts software requirements. For example, in 2019 Alsanoosy and Others’s systematic literature review [5] identified 16 culture-related factors (e.g., hierarchical decision-making, communication style) affecting RE activities and mapped them to Hofstede’s dimensions. Chowdhury and Others [13] extended this review to 2019–2023, extracting additional cultural influences and highlighting the pervasive role of culture in requirements for mobile apps. Additionally, Alsanoosy [4] proposed a framework linking a country’s Hofstede scores to expected RE challenges. However, this line of research stops short of applying these factors as formal requirements. It underscores the need to adapt RE processes (e.g., more collaborative elicitation in collectivist contexts), but does not offer any concrete requirements or scenarios.

In the HCI literature, Hofstede’s model (and related cultural theories) has long informed interface design guidelines. Early works (e.g., [32]) used cultural dimensions to highlight web interface preferences across countries. More recent studies continued this trend. For example, researchers have analyzed smartphone apps from multiple countries, mapping usage differences to Hofstede’s factors [37]. These studies affirm that interface aesthetics, interaction flows, and feature emphasis vary by culture. Building on this, Reinecke and Bernstein [38] leveraged cultural dimensions to demonstrate systematic cross-country differences in interface preferences and showed

how these differences can be used to automatically adapt fundamental UI elements, such as icons, navigation structures, and layout, to users' cultural contexts. What remains rare is translating such findings into a requirements document; that is, explicitly stating "because users are collectivist, we must include feature X." Our work aims to fill this gap by linking high-level HCI insights to specification artifacts.

In sum, prior work has established that culture matters in RE and HCI [5, 13] and that sharing economy platforms require trust- and participation-oriented features [23, 28]. Our contribution is to explore these threads: we propose a concrete method to embed cultural values from models like Hofstede into the requirements artifacts themselves. This closes a loop from social science-based insights through design to executable specification, an integration not yet widely explored in the existing literature.

2.2 Affordances in Community-Oriented Sharing Economy (COSE)

In the context of Human-Computer Interaction (HCI), the concept of *affordances* describes the action possibilities that an environment or artifact offers to a user, depending on their capabilities and the context of use [36]. Bødker [11, 12] reinterpreted affordances from an *activity-theoretical perspective*, arguing that they are not fixed properties of artifacts but rather emergent relations between the user, the artifact, and the context of use. In this sense, affordances are relational and situated concepts that arise from social and cultural interactions rather than merely technical characteristics of a system or capabilities of a user.

Within the COSE context, affordances represent action possibilities emerging from the interaction between users and digital platforms, considering both participants' capabilities and the community's objectives. Although not equivalent to concrete features or functionalities, affordances may indicate how technology can support collaborative behavior, trust-building, and community engagement. For example, affordances such as *Generating Flexibility* or *Match-Making* describe opportunities to access resources dynamically or connect participants with complementary needs and skills, without specifying how these actions will be implemented in the platform.

In this work, we consider that these affordances can serve as a basis for designing concrete UX features that materialize these action possibilities. Each affordance can inform the development of digital functionalities. For example, *Match-Making* can inform dynamic scheduling systems, search filters, and matching algorithms; *Managing Transactions* can be translated to integrated payment mechanisms; or *Facilitating Collectivity* can inform the design of forums and chats. By translating affordances into digital features, designers can align technology with the social and collaborative objectives of COSE, ensuring that platforms not only provide technical functionalities but also promote participation, cooperation, and community sustainability. Additional affordances such as *Extending Reach*, which enables participants to access different

or distant resources and peers, and *Trust Building*, which empowers the platform to establish legitimacy, transparency and confidence among participants, further charting the design space for COSE platforms.

2.3 Behavior-Driven Development (BDD)

Behavior-Driven Development (BDD) is an Agile software development methodology that emphasizes collaboration among developers, testers, and business stakeholders to define system behavior through user stories or scenarios. These scenarios are typically written in a natural language format known as Gherkin, which employs the Given-When-Then structure to describe the expected system behavior [45].

A core principle of BDD is the creation of a "ubiquitous language", a shared vocabulary that all stakeholders can understand. This common language helps bridge the communication gap between technical and non-technical team members, ensuring that everyone has a clear understanding of the system's behavior and requirements [45].

In the context of multicultural and cross-cultural software development, BDD is particularly beneficial. Research has shown that cultural influences can significantly impact the requirements engineering process, affecting how stakeholders perceive and define system behaviors [6]. Using BDD's shared language and collaborative approach, teams can mitigate cultural differences misunderstandings, ensuring that the software is in line with the diverse expectations of its users [34].

Designing software that aligns with cultural contexts is essential for optimizing human-computer interaction [24]. Taking cultural aspects into account helps not only in accurately defining functional and non-functional requirements but also in steering the entire RE process effectively.

In recent years, there has been increasing interest in understanding how stakeholders' cultures affect software development processes, especially in activities related to Requirements Engineering. The recognition of cultural influences in these activities has gained prominence, underscoring its critical role within the broader landscape of software development [6].

3 Methodology

An overview of the methodological pipeline used in this study is provided in Fig.1, which integrates the scoping review, the cultural-affordance mapping, and the construction of culturally grounded BDD scenarios. To frame our investigation, we first reviewed major cultural frameworks, selecting Hofstede's Theory of Cultural Dimensions as the primary lens for analysis. Hofstede's model has been widely applied across disciplines, including healthcare [14, 33] and HCI [20, 41], and provides a structured approach for analyzing participation, trust, and engagement in digital platforms such as COSE. We conducted a structured scoping review [8] across IEEE Xplore, ACM Digital Library, and Scopus, targeting studies on COSE platforms, UX design, and applications of Hofstede's dimensions to digital participation. Screening prioritized the first 100 results

from each database, complemented by purposive inclusion of key studies [1, 15–17, 21, 30, 43, 46]. Backward and forward citation analysis extended the corpus, resulting in 43 studies, of which 14 were analyzed in depth for their relevance to the interplay between cultural dimensions and UX affordances. Based on insights from the literature, we organize the cultural influences onto Bødker et al.’s affordance framework [9]. Table 1 presents a synthesis derived from our conceptual contribution, mapping each COSE affordance to the Hofstede cultural dimensions that influence it. This structure provides a coherent and systematic way to visualize how cultural factors may shape affordances in COSE platforms.

Table 1: Sharing economy affordances and the Hofstede cultural dimensions that influence them

Affordance	Influencing Hofstede Dimensions
Generating Flexibility	Power Distance, Individualism / Collectivism, Uncertainty Avoidance
Match-Making	Individualism / Collectivism, Uncertainty Avoidance
Extending Reach	Individualism / Collectivism, Long-Term vs. Short-Term Orientation
Managing Transactions	Power Distance, Uncertainty Avoidance, Masculinity / Femininity
Trust Building	Uncertainty Avoidance, Individualism / Collectivism, Power Distance
Facilitating Collectivity	Individualism / Collectivism, Power Distance, Long-Term vs. Short-Term Orientation

These insights were then translated into structured BDD scenarios using Gherkin, forming a translational toolkit that captures culturally grounded behavioral specifications. Each Gherkin step is linked to executable test functions in a BDD framework such as Behave, allowing systematic validation that platform behavior aligns with cultural requirements, including UX adaptations like labels, navigation, and content prioritization (Fig 2).

We argue, that this methodology bridges cultural analysis and concrete software artifacts in COSE platforms, supporting communication between designers and developers and guiding the implementation of context-sensitive, culturally informed platform features.

4 Incorporating Cultural Insights into Development Processes

To bridge the gap between cultural insights and platform design and development practices in COSE organizations, we propose a translational methodology that organizes cultural dimensions into Behavior-Driven Development (BDD) scenarios using the Gherkin syntax. The toolkit is composed of two main components. First, the Gherkin scenarios, which capture culturally-informed user behaviors and expectations in natural language, representing both functional and non-functional requirements. Second, the step definitions, implemented in

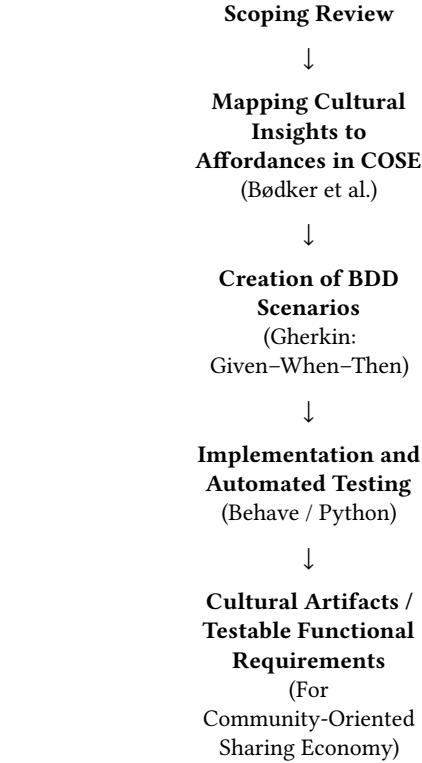


Figure 1: Pipeline for designing culturally informed features in COSE platforms

a BDD framework such as Behave, which link each Gherkin step to automated test functions in Python. This setup enables validation of the software against culturally-relevant requirements, ensuring that UX adaptations, such as labels, navigation paths, and content prioritization are correctly implemented.

To operationalize these cultural expectations, we constructed a set of culturally sensitive BDD scenario. Each feature corresponds to a key design affordance and includes Gherkin-based scenarios tailored to both individualistic and collectivist cultural contexts. These scenarios serve as a translational layer between ethnographic insights and actionable design/development tasks, helping interdisciplinary teams create more inclusive and culturally attuned COSE platforms. The labels and options within each scenario are dynamically adapted to reflect the nature of the specific COSE domain, whether focused on object-sharing, space-sharing, or other forms of collaborative exchange.

As a representative example of this translation, in this work we chose an affordance, *Generating flexibility*, and a single cultural dimension, *Individualism vs. Collectivism*, to illustrate how cultural insights can inform non-functional software requirements in COSE. Generating flexibility affordance emphasizes how different cultural expectations shape user interaction on COSE platforms.

Listing 1: Gherkin Scenario Outline for flexible interaction across cultural contexts

Feature: Flexibility in navigating and accessing shared items

Scenario Outline: User from different countries customizes platform experience

Given I am a user from <country>
And I am on the home page of the platform
When I <action>
Then I see the options <labels>
And I can click on <menu>
And I can <feature>

Examples:

country action labels menu feature
Switzerland open the filters "Auto Reservation", "Available Now", "For You" "Dashboard" manage my bookings and notification preferences
Brazil browse available items "Trusted by Neighbors", "Community Favorites", "Most Popular" "Community" view items shared by people in my groups or neighborhood

Listing 2: Python step definitions for the Scenario Outline in Listing 1.

```
from behave import given, when, then

@given('I am a user from {country}')
def step_impl(context, country):
    context.user_country = country

@when('I open the filters section')
def step_impl(context):
    context.filters_opened = True

@when('I browse available items')
def step_impl(context):
    context.items_browsed = True

@then('I see the options {labels}')
def step_impl(context, labels):
    expected = [label.strip().strip('"') for label in labels.
                split(',')]
    assert all(option in context.page_options for option in
               expected)

@then('I can click on {menu}')
def step_impl(context, menu):
    assert menu in context.menu_items

@then('I can {feature}')
def step_impl(context, feature):
    context.last_action = feature
```

To visually illustrate the impact of cultural dimensions on interface design, we include a comparative interface of the COSE platform's home page tailored to two cultural contexts: individualistic and collectivistic (Figure 2) for the affordance *Generating Flexibility*.

In the collectivistic version (e.g., Brazil), the interface emphasizes community trust and social validation. It showcases UI elements such as: Labels like "Trusted by Neighbors," "Community Favorites," and "Most Popular." (see Fig. 2.1) A central

Community button (see Fig. 2.2) that invites users to connect with others who have shared similar experiences or are planning related activities, reinforcing social bonds and group alignment.

In the individualistic version (e.g., Switzerland), the interface highlights personal control and customization. It features: Filters such as "Auto Reservation," "Available Now," and "For You." (see Fig. 2.3) A navigation bar that includes a Dashboard link (see Fig. 2.4), allowing users to manage bookings and preferences independently.

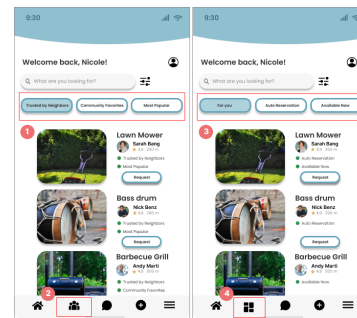


Figure 2: Interface Comparison: Generating Flexibility for Collectivism vs. Individualism. (1) Filters prioritize community validation, encouraging decisions based on collective trust. (2) The bottom navigation highlights dedicated access to the community, creating space for social interactions, discussions, and peer recommendations. (3) Filters emphasize personal preferences, personalized recommendations, and autonomy in decision-making. (4) The bottom navigation functions as a dashboard, optimized for managing personal settings.

5 INITIAL QUALITATIVE EVALUATION

To conduct an initial evaluation of our proposed approach, we conducted qualitative studies with three software engineers, who are employed at our University to receive feedback on feasibility and envisioned challenges of the method. This evaluation sought to understand how software engineering professionals perceive the integration of cultural dimensions into the requirements engineering process through BDD and Gherkin scenarios, prior to a large-scale validation study. Before the interviews we briefed participants about our method and presented them a scenario (See Listings 1-2). During the interviews, participants were invited to reflect on three central questions: (1) which aspects of the approach are technically beneficial, (2) which parts are perceived as weaknesses or potentially difficult to implement in practice, and (3) which suggestions could be made to improve the approach from a technical perspective.

Overall, our participants responses indicate a positive perception of our approach, while also highlighting challenges

related to its practical adoption. All three participants recognized clear technical benefits, particularly regarding requirements structuring and the reduction of ambiguities. The use of well-established Gherkin scenarios was identified as a key strength, as it promotes a clearer specification of expected system behavior and facilitates communication among developers, testers, and non-technical stakeholders. One participant emphasized that translating cultural aspects into testable scenarios helps make abstract requirements more concrete, potentially improving software quality and reducing rework in later development phases.

Despite these benefits, our participants also pointed out some weaknesses. A recurring concern was the time required to adopt the approach, especially in contexts where well-established development processes are already in place. One participant stressed that *“introducing something entirely new into an existing workflow can generate resistance,”* suggesting that the approach would be more successful if integrated incrementally into existing processes rather than replacing them altogether. Another critical issue raised was that testing is often neglected in many projects, and the introduction of the proposed approach could be perceived as *“an additional task to learn and maintain,”* increasing the team’s initial effort. Additionally, participants mentioned the difficulty of consistently operationalizing abstract cultural concepts.

Although the use of Hofstede’s cultural dimensions was considered theoretically sound, the engineers noted that translating these dimensions into technical requirements requires interdisciplinary knowledge and may lead to subjective interpretations. In this regard, one participant suggested that the approach would benefit from more visual artifacts, such as concrete interface examples associated with each cultural dimension, to facilitate understanding and practical application of the derived requirements.

In summary, the approach is perceived as technically valid and aligned with established software engineering best practices, particularly with respect to requirements clarity and testability. However, its practical adoption strongly depends on strategies that minimize disruption to existing processes, reduce initial effort, and provide adequate technical and visual support to transform abstract cultural aspects into implementable requirements.

6 Discussion

This study emphasizes the importance of incorporating cultural factors into software requirements engineering for COSE platforms. In addition to mapping the cultural requirements that influence engagement and trust in sharing economy platforms, this work proposes a method that facilitates the practical application of this knowledge. The use of BDD, an approach already well-established in software development, enables the translation of theoretical findings into clear guidance for development teams. In this way, we provide an accessible overview of how to integrate cultural aspects into software development, making implementation more straightforward and effective.

The proposed method combines conceptual mappings based on cultural dimensions, such as those of Hofstede, with practical prototyping, aiming to incorporate cultural insights already in the early stages of requirements elicitation for sharing economy platforms. In this way, a requirements engineer can embed specific cultural values associated with different dimensions, such as individualism or collectivism, directly into the requirements, enabling the consideration of needs that would be overlooked in a generic approach. Furthermore, by applying BDD through natural language scenarios, a team uses a shared terminology between business and technical perspectives, which enhances collaboration and mutual understanding from the outset of the project.

Although this study illustrates the methodology using only two cultural contexts, Switzerland (individualistic) and Brazil (collectivist), the translation pipeline was designed to be broadly applicable. The approach can be easily extended to other cultural contexts or user groups, providing a replicable and generalizable framework for transforming cultural insights into software requirements. In this way, software developers and design professionals can operationalize ethnographic insights into testable functional and non-functional requirements, enabling the creation of solutions adaptable to multiple COSE platforms and diverse sociocultural contexts. Future applications of the methodology will explore additional cultural dimensions, such as Uncertainty Avoidance, Power Distance, among others.

This shared foundation allows cultural insights to be translated into functional requirements in a structured manner. Features such as a preference for specific trust mechanisms, collaborative feedback, or individual autonomy are formalized as acceptance criteria within the scenarios. As a result, the specification directly reflects the social practices of the target audience, contributing to software design that respects cultural differences and provides functionalities aligned with user expectations.

Scenario-based documentation also strengthens communication between requirements engineers and developers, reducing noise in the translation of requirements into code. In other words, UX insights derived from users are translated into clear technical terms, aligning the design vision with implementation without ambiguity.

This approach also benefits validation and verification processes. Simultaneously, each scenario becomes an automated test case, resulting in tests that are relevant from the user’s perspective. In this way, validation (with the user) and verification (in the code) operate on the same culturally-informed requirements base.

Finally, the application of these concepts has a direct impact on the quality and usability of the interface on the sharing economy platforms. In summary, by linking user experience insights grounded in cultural context to technical specifications through BDD, the method helps the team develop context-aware interfaces, enhancing user engagement and trust in the software.

To the best of our knowledge, this approach of organizing cultural insights into BDD scenarios constitutes a novel contribution at the intersection of Human-Computer Interaction and Software Engineering. However, our current findings are preliminary and further empirical validation is necessary to understand the broader applicability and effectiveness of the proposed scenarios. However, the study provides a structured approach for integrating cultural considerations into software development, offering practical guidance for teams seeking to improve user engagement and trust in sharing economy platforms. More broadly, our work also provides a conceptual foundation capable of guiding the definition of requirements in context-sensitive, user-centered software solutions across different application domains.

7 Concluding Remarks

In sum, this study introduces an innovative approach to operationalizing cultural insights in software development for sharing economy platforms. The proposal enables the translation of culturally informed knowledge into structured behavioral scenarios using Gherkin syntax. We envision that this approach can contribute to culturally-aware requirements engineering by providing a practical means for multidisciplinary teams to understand and address user expectations rooted in local cultural values.

This study contributes at the intersection of HCI and Software Engineering in sharing economy platforms in three ways: (1) conceptually, by integrating cultural factors into requirements engineering and interaction design; (2) methodologically, by providing a systematic approach to translate cultural insights into BDD scenarios; and (3) through artifacts, by producing BDD scenarios and Python step definitions that operationalize cultural dimensions into testable requirements. A key strength of this method is its ability to establish a shared language among all members of the development team, facilitating communication across diverse roles and ensuring the consistent integration of cultural considerations throughout the software development lifecycle, from requirements elicitation to design to implementation and testing.

Moreover, the use of the Scenario Outline feature (See Listing 1) fosters reuse and parameterization of scenarios. For example, a single behavior flow can be tested with different data sets automatically, without the need to manually repeat the steps. This increases coverage of culturally dependent requirements without requiring extra effort in writing. These factors make the process more scalable and cohesive, simplifying the validation of functional requirements that consider cultural context, and improve alignment between the user experience design and technical implementation.

Consequently, the resulting software products will be more inclusive and better aligned with the needs of culturally diverse user groups. Although the current results are preliminary, they indicate the potential of this approach to inform the design of user interfaces that resonate with culturally distinct audiences.

8 FUTURE WORK

In the next phase of this study, we plan to conduct a series of empirical validations. We will begin with an ethnographic investigation in sharing economy communities in Brazil and Switzerland, with the aim of capturing users' practices, motivations, and culturally-situated behaviors. This will complement and enrich our conceptual mapping of cultural influences derived from Hofstede's dimensions, providing empirical grounding for the framework. We will also conduct semi-structured interviews with community members to further elicit detailed insights into their needs, expectations, and interaction patterns. Additionally, we will conduct co-creation design workshops with UX designers and cultural experts to conceptualize the value-added features for COSE platforms based on the collected needs.

Finally, we will engage requirements engineers to systematically evaluate the translation of these insights into formal UX requirements, employing focus groups to collect structured feedback. This multi-method approach will allow us to close the research cycle, integrating cultural understanding, UX design, and requirements engineering into an empirically-informed methodology for cultural software requirements for COSE platforms.

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