

***Digital Experience Theatre:
Ideation Tool for Developing Socially Significant Digital Products***

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Abstract

The problem identified in the Digital Experience Theater (DXT) research project is related to the development of interactive digital products, particularly mobile devices, with relevance for empowering a place and its community. Digital products, increasingly ubiquitous in contemporary societies, are a powerful medium for the sociocultural mapping of a community in a simultaneously local and global context. The contribution of design and technology in this field has supported economic and cultural progress. Still, this development only sometimes promotes an integrated economic, social, cultural and environmental sustainability model. The research aims to experiment with a UX design ideation tool to enable a reflection and a clear conscience around the sustainable and holistic creation of digital products and thus promote community development. The DXT leitmotiv is the theatre of the oppressed, created by August Boal, through which users of web and mobile applications are considered vulnerable citizens, subject to a profusion of digital products and their features of questionable usefulness. Following the theatre of the oppressed methodology, the DXT has been collecting the opinion of experts in the field and developing an ideation tool to support creatives, namely students and designers in the field of digital interaction, to contribute to the transformation of this reality and promote the appearance of innovative and sustainable solutions.

Keywords: UX Design, Theatre of the Oppressed, Humanity-Centred Design

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Introduction

Whether web applications and apps for mobile devices are sufficiently relevant for defining a particular place and its community was the starting point of a collaborative research being developed at IADE - Universidade Europeia, in Lisbon, Portugal. These digital products, increasingly ubiquitous in contemporary societies, are a medium with a potential vocation for the sociocultural mapping of a community in a simultaneously local and global universe. The contribution of design and technology in this domain has supported economic and cultural growth. Still, this development not always promotes an integrated model of sustainability at the economic, social, cultural and environmental levels.

Aiming to develop digital products with more quality, the logic has been using a human-centred design approach, whose processes prioritise the needs, capabilities, and behaviours of the human being to provide a creative and technological response that enables the design of digital solutions (Norman 2013).

The research aims to define and systematise a UX design methodology that enables digital products' sustainable and holistic creation. It also aims to promote community development and empowerment and show how heritage, relationships, memories and rituals constitute the different places and communities and make them more meaningful. The project's broader ambition is that digital product concepts arising from the developed methodology may influence a new design paradigm based simultaneously on technological improvement and social innovation, thus representing a worldview centred not only on humanity but on other phenomena that are beyond the idea that the human being is the measure of all things.

The leitmotiv of the research is the methodology of the *theatre of the oppressed*, created by Augusto Boal from the philosophy of Paulo Freire, through which the users of digital products are considered vulnerable users, subject to a profusion of solutions of questionable utility. Following the *theatre of the oppressed* methodology, the DX Theatre (DXT) project aims to create an ideation tool that works as a mechanism with the ability to operate with participant designers and creatives in the sphere of digital technologies to contribute to the transformation of this reality and promote community-based innovative and sustainable solutions.

The *theatre of the oppressed* ought to contribute as methodological support for designers and creatives of digital products to place themselves more consciously in the shoes of the user of digital products – thus perceiving the contradictions and weaknesses reproduced in society. The main goal is to demonstrate, through the analysis, evaluation and interpretation of scientific and empirical data, that a UX design methodology focused on principles of functionality and use, informed by the user's actions and emotions, can contribute to the transformation of the dominant logic in the creation of digital products and, consequently, leverage community relationships in a glocal sphere.

As for specific objectives, it is important to prove that the design of web applications and apps for mobile devices, focused on the valorisation of a particular place and its community, is an eclectic design domain with a vocation for social innovation and sustainable development. Finally, it is essential to validate the added value of an interdisciplinary approach in this domain with specialists in design, creative technologies, and theatre studies. It is also a specific goal to create a website that makes available to the scientific community

and the communities of practice the experimented ideation tool, as well as other results produced during the research.

The Expanded Field of Human-Centred Digital Product Design

Contemporary design, including the human-centred design philosophy, is still strongly marked by a patriarchal culture, where attributes commonly associated with the masculine tend to become the central values, such as reason, which is appraised to the detriment of emotion, typically associated with the feminine. We consider emotion to be one of the pillars of human existence, and it is indeed more kindred to the notion of a community if we assume the fundamental distinction Ferdinand Tönnies established between the two forms of social formations: *Gemeinschaft* (community) and *Gesellschaft* (society). Nonetheless, the development process, which shifts social formations from the former to the latter, tends to be accompanied by the homogenisation of relationships and rituals.

If one recognizes the need to promote the diversity of cultures, ontologies, and worldviews that exist in the world, it appears valuable to embrace a concept such as the *design for the pluriverse*. A new way of thinking about design and its role in shaping our world is needed in order to set forth a mode of design that acknowledges the aforementioned diversity of cultures and aims to create solutions that are responsive to it (Escobar 2017, 2018). Escobar argues that traditional modes of design have been based on a Western-centric worldview that assumes a singular, universal truth. This mode of design has been focused on creating solutions that fit this worldview and often ignores the diversity that exists in the world. This approach to design has led to the homogenisation of cultures and the marginalisation of diverse communities.

Despite theoretically promoting diversity, the globalisation that for the past four decades has characterised human societies excessively pushes economic and political power. This logic contributed to the proliferation of communities of dominators and dominated, intensifying differences and generating ruptures. It is a model of a global economy that damages, sometimes irreversibly, what is less perceived but structuring societies that can be developed innovatively and sustainably. The patriarchal system still mainly in place, alongside the economic, financial, social and cultural dynamics of globalization, reinforces hierarchies and inequitable relations.

Human-centred design must be included in a larger sphere with a humanity-centred design approach, where small changes in different processes impact the planetary system. The still predominant human-centred design perspective that developed since the 1980s should expand into a global humanity-centred logic involving all living things, focusing on air, water and soil quality, as well as combating biodiversity loss and climate change. The difference between the two design modes – human-centred and humanity-centred – is that the latter does not ignore some fundamental issues, such as the phenomena of sustainability, inequality, and prejudice, seeking to have a holistic perspective of development and future scenarios (Norman 2023).

Humanity-centred design starts from the same principle of human-centred design of finding solutions for fundamental problems, not just the symptoms. However, it goes further in other principles, such as not just thinking about people but also perceiving the entire ecosystem of all living things and the environment; considering the situation from a systems perspective in a long-term effect, instead of short-term, recognising that the interactions between the various

parts are what cause the majority of problems for society and the ecosystem, which are perceptible only years after the damage; testing and improving the proposed designs over time to make sure they genuinely address the issues of the target users and the ecosystem as a whole. As a new principle, humanity-centred design enhances community involvement in the process, where designers assist community-generated designs. Professional designers should more often act as enablers and facilitators aimed at assisting the community in addressing the challenges they face (Norman 2023).

Through the prism of *design for the pluriverse* the question is to challenge the human development paradigm that is still dominant to propose a new design approach and way of thinking about design based on the recognition that there are multiple ways of knowing and being in the world and that this diversity is very significant for local and global sustainability. By *designing for the pluriverse* is also possible to recognise that there are distinct cultural, social, and ecological contexts that require responsive solutions to the diversity of contexts. This mode of design enhances the autonomy and self-determination of communities, which can lead to greater social and ecological justice. Communities have the right to determine their solutions to more or less local problems, which should be based on each community's cultural and ecological context (Escobar 2017, 2018).

Regarding the development of significant interactive digital products, pluriversal and humanity-centred designs should follow a logic that starts with understanding psychology and technology, not only of the human as an individual and social being but also through community-based holistic thinking. In this new paradigm, technology's future plays a key role. With increasingly smaller electronics, digital products will use fewer power resources while becoming faster and more accurate. This reduction in size makes it possible for smaller, lighter, and composite portable devices to process complex data, making many other emerging technologies more functional, sustainable and low-cost. Therefore, almost everything of value, such as human and animal behaviour and different ecosystems worldwide, will be tracked and observed due to the development of omnipresent communication technologies (Norman 2023).

The design of digital products in this sphere requires good communication between the machine and the user and between this interaction and other human and non-human dynamics. The principles of functionality and use should focus more on actions and emotions that transform the dominant logic and promote participatory relationships in a more social sphere. Following Escobar (2017, 2018), the interconnection between various human and non-human systems, and the coexistence of different cultures and worldviews, are crucial aspects for rehabilitating civilisation and the planet as a whole.

Methodology to Enhance Vulnerability and Boost Eco-Social Interaction Design

The *theatre of the oppressed* methods created by Augusto Boal, such as the newspaper theatre, the invisible theatre, and the image theatre that inform the DXT research aims at supporting designers and creatives of digital interactive products being user/spect-actors, and not just user/spectators. This is based on Boal's (2019) four stages that he considers most significant for transforming the spectator into an actor: knowing the body, making the body expressive, theatre as language, and theatre as discourse. It is a set of principles to master the means of theatrical production, to know one's own body and make it more expressive, aiming at transforming the spectator into an actor. According to Boal, this is a process for transforming the person, as a witness, who starts to play a more decisive role as a protagonist.

The spectator traditionally delegates its powers and agency to the actor-protagonist, so the later thinks and acts for him. This process would therefore be a form of liberation for the spectator, whom, no longer reduced to the passivity of the reception, would establish a relationship of critical freedom with the spectacle, and play a transforming role within social reality (Peixoto 1980).

Following Boal's proposal, mobile web applications and apps users are considered vulnerable citizens who are subjected to a large majority of digital products with little focus on the community's local problems and solutions to leverage social and cultural sustainability. The majority of users at a global scale have access to a small number of quality digital products, contributing to the progress of the *society of the spectacle*, which is a typical case of the oppressed harbouring the oppressor. According to Guy Debord, the *society of the spectacle* is defined by the network of social relations mediated by images, which is intertwined with the capitalist process of production and consumption of commodities (Debord 1995 [1967]).

Guy Debord is sceptical of the possibility of the destruction of this social reality, which was reinforced by globalization. The spectacularization and commodification of society strengthens the structural inequalities and hierarchies, leading to class alienation and cultural homogenization (Debord 1990 [1988]). But according to Freire (2014), the liberation from the condition of the oppressed and the rupture with the "oppressor-oppressed" logic is possible, in the shape of a complex operation capable of creating just citizens, "no longer oppressors; no longer oppressed, but a human being to be liberated". The *theatre of the oppressed* methodology may function as a response against the social, economic and cultural hegemony, as a way to counter conformism.

The emancipating action of vulnerable users due to their condition as consumers of digital products, not always focused on social and ecological justice, starts with the designer, that is, the creative or team of creatives that develop these products, representing the potential user. This is a praxis that aims to be both a reflection of the sociocultural condition to be transformed and a form of reflection in action that mobilises designers and creatives of digital interactive products to develop disruptive ideas. This praxis for digital product design through a specific ideation tool like the DXT, combining critical reflection and design practice, is a model for stimulating the "oppressed consciousness" and thus generating the desired sociocultural transformation to a sustainable future.

It is fundamental to underline that the designer does not place himself in a position of superiority, substituting the previous oppressor for himself. He is not the lecturer, the educator or the priest. Boal himself states that the methods of the *theatre of the oppressed* should not be those of agitation, propaganda or evangelization, because these are methods of the oppressors. This must be taken into account in this type of process and in the development of UX tools. Boal says that he himself tried to act that way for many years – explaining to the spectator how to make the revolution. But the path should be waked together – you have to learn from the public. That is why the participation process is so important in our methodology. "I don't know more than the spectators, and before I thought I knew. I don't want to lecture anyone. We learn from each other, together. In this sense, the *theatre of the oppressed* is pedagogical. What I look for is to stimulate and strengthen the potential for transforming reality that the spectator has. (...) To help the spectator find his own solutions, which only he can find" (Boal, cit. in Peixoto, 1980, p. 179).

Relational Process for the Ideation of Socially Significant Digital Interactive Products

The DXT ideation tool was already tested with Design students at IADE–Universidade Europeia (Portugal) and with Exergames students at the Stuttgart Media University (Germany), and discussed with professors of interaction design. The main objective is the iterative development and improvement of the tool through the organisation of workshops and reflection on its outputs until a refined version of the ideation tool is reached. In such a way, the DXT workshop has been working as a rubber band from dystopian to micro-utopian ideas for apps, through which students start by selecting a theme-problem according to digital innovation trends, specific places and communities, as well as unsustainable development dystopias (e.g. CO2-based urban mobility services, mass tourism, gentrification, fanaticism in sports, environmental unconsciousness, consumerism, bad eating habits, and other unsustainability issues) (Fig.1). This approach is followed by a discussion between conductor-designers and antagonist-designers who enter in the process of adversarial participation inspired by Boal's theatre of the oppressed. The final moment is when the designers' "oppressed consciousness" is made clear, allowing them to ideate socially significant digital interactive products and consequently contribute to a pursued sustainable future.

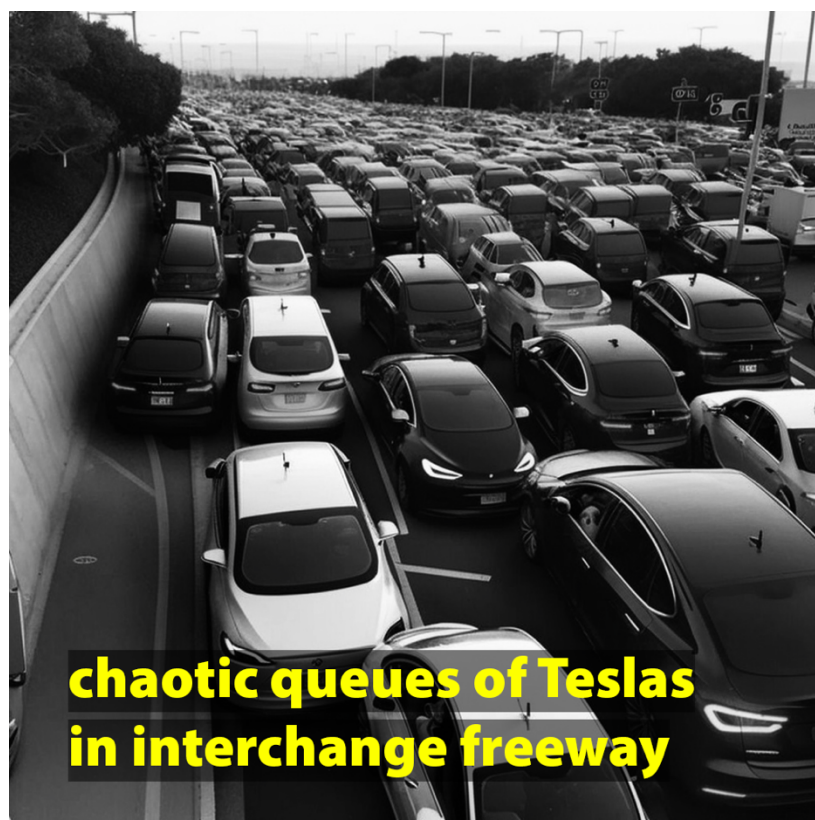


Figure 1 - Demo Midjourney image. DXT team, 2023.

According to Nelson and Stolterman (2012, p. 18), “designers have to begin with immersion in real-life situations to gain insight into experiences and meanings that form the basis for reflection, imagination, and design.” They should actively interact with the environment around them, paying attention to how others behave, and comprehend the context in which they act throughout this immersion phase. To fully understand the requirements, wants, and motivations of users, this may entail doing research, interviews, and field studies, among other methods. This knowledge may guide their design efforts and assist them in developing

solutions that are more effective and meaningful for users. Immersion in real-life situations may also aid designers in developing a self-reflective and creative methodology for their work. Reflection allows designers to evaluate their presumptions, prejudices, and design decisions critically and improve their process to meet the users' needs.

In this sense, the DXT ideation tool aims to leverage creativity through significant reflection and enable designers to provide original and innovative ideas within their design process. The methodology is undoubtedly more effective between the immersion phase and the self-reflective moment when designers should have a critical approach to the problem in question, which in the DXT is made by imagining worst-case scenarios and dystopian futures, followed by the development of innovative conceptual solutions.

The DXT also intends a design ideation in harmony with the environment through an empathetic approach and interaction between all the participants involved in a given workshop. The post-cartesian notion of the interconnectedness of all life is central to ecology insofar as the relational and interdependent being replaces the autonomous and isolated being (Escobar 2018, Gablik 1992). People exist in constant relationships with each other and between them and the rest of the environment, that is, can expand to any human group if one assumes that reality is relational and that people do not exist apart from their other (non-human) environment (Escobar 2014, 59).

The web of relationships that characterises the DXT's dialogical approach, inspired by the theatre of the oppressed methodology, is based on listening and dialogue to promote reciprocal relationship experiences, which expands from the individual to the community's collective and leads to the construction of identities established on the communicative process of our intersubjectivity. Collaboration approaches take intersubjectivity as a means of expression that replaces the subjectivity of the personal experience with the varied experiences of all the participants involved (Gablik 1992). In sum, the empathetic approach gives rise to a more ecological society, the mutual recognition among its citizens and promotes the equity of different cultures and knowledge, contributing to community sustainability (Gablik 1992, Manzini 2019). The relational aspect of these encounters is embedded with emotions and defined by a collaborative approach between participants. As Manzini puts it (2019, 2): "At this moment and in this place, these different networks will intertwine with each other producing a denser fabric of people, places, and things. They express and produce a community."

Conclusions

The DXT mission is to create and systematise a UX design process that facilitates the production of sustainable and holistic digital products. In addition, it aspires to encourage societal empowerment for development while bringing out how multiple locations and communities are created and given more value by their cultural roots, interactions, and diverse knowledge. The research's overall objective is to influence a new design paradigm that is simultaneously based on the latest technology and social innovation. This would represent an approach to reality that is not merely human-centred but also focused on other phenomena related to humanity.

After a first year of literature review and primary data collection, namely through workshops with design students and unstructured interviews with interaction design professors, the DXT will continue to develop a website to support the ideation of digital products, combining

critical reflection and design practice, aiming to operate with participant designers and creatives in the sphere of digital technologies to enhance community-based innovative and sustainable solutions. The research will keep on developing workshops with bachelor and master students, and reflections with experts in design, creative technologies, and theatre studies. Soon, we expect to have the website completed and ready to be used, including an archive of outputs, which will then be disseminated by other research milestones, such as round tables, publications, and a final show.

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