#### RESEARCH PAPER

# User-created personas in rural Mexico and in rural Spain: Approaches neither from the North nor from the South

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#### Abstract

Persona is a designerly artefact rapidly expanding cross-culturally. However a paucity of models to get/communicate cultural aspects vital to design; a lack of empirical projects dealing with persona artefacts as research foci, and the upsurge of objects produced via research-by-design encourage this cross-cultural study of personas co-designed neither in the Global North nor in the Global South, but in Spanish and Mexican rural sites. Results show both tactics having relevance in co-creating personas with the users to tackle micro-cultural aspects in each site. Each of the two approaches though is held and led in a different manner, with the Mexican being a User-Centred Design (UCD) style, and the Spanish a participatory innovation research-by-design exploration. Both means of persona representations come as valuable contributions to the HCI literature on design of communications across cultures, for involving users in persona design can legitimately augment the accomplishment of designs beyond rest-of-life technologies.

**Keywords:** Design Artefacts; Personas; User-Created Personas; Participatory Innovation; Co-Design; User Involvement; Micro-Cultures.

# **1** Introduction

The third wave in HCI promoted attention to the cultural context, although results so-far led to many rest-of-life technologies [2]. As such designerly objects produced via research-by-design are gaining authority and momentum [10] as they arise from both, the need to redefine and reshape design practices and skills [18] and from a generative design-driven activity holding innovations as options to compel designers to reflect other possible futures [10]. Hence, objects sharing designerly findings accurately and with

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Abdelnour-Nocera, J. IT University, Copenhagen, Denmark M-ITI, Madeira, Portugal josa@itu.dk scientific rigour are in high demand; so creating ways that attend to objects' made, material outcomes and final value is key [10].

Attending to cross-cultural users attaining, interacting with, and assuming technology differently in diverse locales around the globe is a must [22]. Thus the design of communicational objects must be well thought-of, while some must perhaps undergo a redesigned to avoid creating inapt products lacking adoption and engagement, hence producing pecuniary loses amongst other shortcomings. More prominently such objects must strive to elude cultural miscommunications, misinterpretations and ill-effects. This can be counteracted by eliciting, applying and sharing grounded user-data related to designs scaffold from users' needs. In this respect literature states a significant contrast between the paucity of methodologies and models to obtain and communicate cultural aspects key to designing satisfactory technologies [22], and the proliferation of overall artefacts produced via researchdesign that, in turn, reveal new possibilities to aid new insights aimed to compel designers to reflect on futures yet to be made [18]. Adding to such contrast there is the increasing division amid those who design for either the Global North or the Global South.

Amid such globalised turmoil, persona is a communicational tool rapidly expanding in technology design projects worldwide [4]. Persona holds potential in obtaining and communicating cultural aspects key to designing satisfactory technologies [3], while its plasticity and versatility allow it to being adapted and redesigned to reveal prospects supporting new insights aiming to compel designers to reflect upon new potential futures to come, instead of leading to stagnation in technology design for the-restof-life [2]. At the same time persona is often criticised, among others, due to the scarcity in empirical studies making it foci of research [15].

# 2 Global north, regional south and the in betweeners

Despite our reservations regarding what development means [4], in a recent publication Chib [6] states it is impossible to define a more developed Global North and an underdeveloped Global South only by regional settings and their relation to development. A more suitable, complete expression to describe undeveloped areas can be "Regional South", not by location, but as the similar characteristics shared with specific areas regardless of location. Even so the dialectic extremes still leave room for 'development'.

Spain is held as a world developed economy despite investment in R&D is scarce and unemployment rates are high



[17, 24]. Mexico faces similar problems, particularly on social issues still unresolved. Both countries belong to the rearmost positions in the list of developed countries, while studies ought to be carried out on what makes such countries to be developed, developed in what, and whether they do ultimately belong to such defining grouping.

## **3** Personas in the global north

Persona holds a great widespread use and support [15] as a designerly tool pioneered in the Global North [7]. This contrasts with the lack of persona research as the centre of design research [15], which supports the division of opinions practitioners and scholars hold in using personas in design decision-making [21].

Despite the above and that it does not hold a final definition persona strives to portray needs, requisites and goals of people through a representation of a group with common goals, attitudes and manners when interacting with a product or service [16]. Cabrero [3] compiled ten crucial persona benefits like supporting focus on users; helping to create empathy in designers; facilitating the ongoing communication amid different stakeholders during different design phases, and complementary enhancing other methods, tools and techniques such as PD and Scenarios [9].

Literature though argues a scarcity of grounded data usage [15, 8] as projects involve end-users in the research phase but not in the creation and grounding of personas, which ultimately tend to rely on professional designers' intuition [7], and a designer's interpretivist approach in decision-making [8]. Ultimately there is a general lack of persona empirical research [15], especially on how the method is taken on, understood, depicted by users [5]. Recent literature though argues that when created in participation with users, persona satisfies the definition commonly agreed in the literature [5, 11, 12, 14, 20, 23].

# 4 Personas in the global south

An upcoming paper at the AfriCHI conference in Nairobi locates a number of persona projects carried outside the Global North [4]. None of these projects uses persona as the research foci but as a technology designerly means. Most of these studies, thus, deploy persona as it comes from the Global North, while some such as [16] acknowledge the struggle in arraying UCD personas abroad.

Projects such as [3, 5] co-design personas with peasants in rural localities, with persona as the foci of a user-created approach. Although the settings of such persona co-creation encounters are varied, they are much related to those in discussion in this paper.

There is thus an emergent positioning of persona projects that contrast with the values, appearance and experiences of personas as conceived in the Global North [3, 4, 5, 11, 12, 13, 16, 19, 23].

#### **5** Persona this side of the world

Literature pinpoints (1)a scarcity of methodologies and models to obtain and communicate cultural aspects paramount to the design of satisfactory technologies; (2)a lack of overall empirical projects dealing with persona artefacts for user representation, and (3)an increase in the productions of designerly artefacts via research-bydesign to reveal new possibilities via explorations that facilitate new insights or compel us to reconsider new possible futures [10].

The persona artefacts presented in this manuscript follow on a trend that counteracts the scant empirical research in general [15], which is more so in localities beyond the very Global North [13]. Such a designedly duty for cross-cultural persona creations comes inspired by the diversity of acquisitions, interactions and interpretations of technology worldwide [22], and by the diverse communicational means with which designs can be transferred to the technology design professions [10]. Equally important, communicational tools must strive to avoid miscommunications or misinterpretations that can lead to cultural hazardous effects.

# 5.1 Personas co-designed in rural Spain

#### 5.1.1 Locality, participants and rationale

The site for this project was Iscar, a 6,500 people municipality in the province of Valladolid in the North of Spain. It occurred in September 2014 and involved 9 participants, 8 of them aged 51 to 61 at the time and one aged 25. Only the youngest participant spoke English, to a degree, thus the project evolved in Spanish. This project emerged as a probe in preparation for a further study of the persona artefact in pastoral and urban Namibia [3, 5].

#### 5.1.2 Methods

Methods used were two and were subsequent to one another: (1)Persona Individual Interactions (PII), around an hour-long semi-structure interview introducing too the persona method for the (2)PIG (Persona Innovation Group) workshop, an hour session where eight participants created a persona collaborative artefact.

#### 5.1.3 Findings

Main findings during the PII were both, a lack of complacence with the way the Internet runs in regards to the amount of misguiding information released and expectations in that those behind the Internet (i.e. marketers, designers...) must be normal, ethical people with good hearts, and with families they all love. Another relevant finding was a resistance to change in a participant due to a sense of acceptance of the current country's political status (i.e. corruption, business as usual, etc.), and the overall financial situation. This participant though broke such resistance, gained consciousness, and empowered himself toward desired changes in his life by using a magic wand proposed by the interviewer via a regular pencil. Holding the magic wand in his hands, the pencil freed the participant's imaginary allowing deep longings to emerge. At the end of each PII participants were proposed to choose three or so Playful Triggers [1] that would express tangible/intangible things of matter in their lives, and to bring them to the PIG workshop to create low cost personas [11].

Since participants knew each other well, PIG did need starters and begun by participants introducing their individual choice of Playful Triggers (Figure 1). Then they chose democratically amid their triggers and other ethnographically-found items proposed by the facilitator so as to create representatives participants would feel they could depict key aspects on who they are.

The persona shown in the picture below (Fig. 2) shows the final physical outcome resulting from this session. This amalgamate of objects came accompanied by a set of explanations on the meaning of each, its place in the overall arrangement, and in most cases, the relation to the rest of the objects -either already placed or as they progressively came to the table. They stated that with their attachment to their close kin, representatives would be as many as the amount of first degree family members in each instance. They though emphasised the extended family as vital in their lives too, and so exemplified this by positioning a pinecone and explaining how it metaphorically portrayed different layers within the extended family: from small kids to grandparents. Then they chose a hairbrush to represent neatness, while a measuring tape depicted the importance of work, though a set of sunglasses on top to highlighted need for leisure time too. A book and an upside down CD were incorporated to stress the rank of literary and musical education. A cell-phone was also chosen as they believed technology is key in this day and age, though a clock was put on top indicating the danger of technology eating time if one does not realise. A participant suggested a condom to illustrate contrast with care for the core of the family; acknowledging the need for private pleasuring time among adults. Ultimately a dessert illustrated an anecdote of love between a couple within the group and to emphasise the relevance of food.



Figura 1. Initial meaningful Playful Triggers become Relevant Artefacts during the PIG workshop



Figura 2. Persona Artefact Created in the PIG Workshop

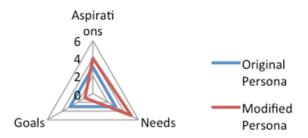
# 5.2 Personas co-designed in rural Mexico

#### 5.2.1 Locality and rationale

The design of technological systems for rural people in Oaxaca, a Southern State in Mexico, requires the use of suitable user research techniques. Understanding key user features should allow designers to think of complete, effective solutions for complex problems. However user's needs from our sample population are quite unalike to those in well-developed countries. Characteristics, goals, desires and aspirations are so different that it is impossible to implement a general solution that fits-for-all. As such, the main difference in how to define our users is the way we build a persona profile. We must thus set the user needs over the user qualities and capabilities, while the user's aspirations are easier to describe and understand when working in such environments.

## 5.2.2 Methods

For our learning project in Oaxaca we found needed to modify the overall classic persona structure to create a useful relevant profile. The common structure used by designers covers three foundations: Aspirations, Goals, Needs. These pillars are product of the user research and it is vital to give the same importance to all of them.



# Figura 3. Difference between the Original Persona Structure and the Modified

The modified persona structure provides a greater weight to user's Needs and a less attention to user's Goals. The main differences between the original persona structure and the modified are shown in Figure 4 above, where we use a numerical distribution 0 to 6. When we use this modified structure as a guide, it is necessary to spend more time describing and understanding the user's Needs.

## 5.2.3 Testing and findings

This modality was tested in three regions in the state of Oaxaca to determine if the new structure generated changes when carrying out prototype design based on the profile information.

Data collected from people in a focus group (Figure 5) aimed at understanding user's needs as a priority. This in turn allowed the design team to generate different prototypes with a single goal in mind, though meeting the different user needs.



Figura 4. Focus Group for User Data Research

A further determining factor when it comes to describe a persona profile using people in a rural setting in Oaxaca has been to avoid the use of analogies to other digital products. Digital penetration is very low in these regions so using an app, system or website to describe a solution to users' needs can well yield to be pointless.

#### 5.3 Proto-persona as a designerly alternative

The Proto-Personas technique [25] is used to generate less common but also relevant profiles with the most important concepts and words to describe our users, this is an easy, low-cost



way to know whether this information is relevant for our design team.

The main issue encountered when using Proto-Personas to make the process more flexible was, however, the lack of necessary details needed to design the first technology prototypes.

#### 5.3.1 Testing and findings

The Proto-Personas technique was tested during the first iteration within the project, where it was necessary to design five different prototypes in a full time-span of five months.

For the next iteration we employed more time for user research stages and less in the construction of new prototypes. So we used personas as a main technique to get more complete user profiles. To define what method was the most useful we used 2 variables:

**Time**: How long does it take the research team to generate a deliverable profile?

**Utility**: What is the level of relevance of the data portrayed in the user profile for the prototype's design stage?

Personas require a longer time for the user research stage though their utility is affected by how long does the iteration lasts.

#### 6 Conclusions & recommends

The persona created in the Spanish context emerged as a democratic creation that collectivised the most relevant itemisation participants located in their lives - their core families. Such portrayal arose together with further objects participants meaningfully described and democratically chose, and arranged, via culturally localised UX nuances conveyed for each element, as well as through the objects' interrelationships. While this depiction was compounded of materials produced as standards from the developed world, they mirror collective accounts as found too in Global South sites like those in rural Namibia [2, 23]. This study also revealed that when empowering participants such as the one with the magic wand, he believed in change and forgot, even if partially, existing societal resistances. Participants also shown unreserved trust on design professionals as being regular, ethical people with integrity; yet complaining about the way participants feel 'tease about' when going to look for something online, i.e. paying a Google-search, and a-priori finding what they were after, though then realising the given website or content was misleading them to somewhere else not initially intended.

Persona profiles designed in Mexican settings allowed the user research team and designers to use a profile with a defined structure and with the typical user characteristics. When building a persona profile using information from different sorts of users, it was found that describing the users' needs was more useful for the prototype building process than focusing on motivations per-se.

Finally, we argue for the need of micro-cultural studies of persona representations whereby the defined and micro-targeted research of smaller chunks of designerly cross-cultural space may lead to the instructive, helpful, entertaining empowerment of participants. As such participants can learn how user research for technology design works, while it can also aid design to depict loyal portraits of participants' genuine needs, requirements and aspirations too. This is so as with the expansion of the Internet of Things (IoT), representational elements elicited via persona artefacts can equally serve novel technology prototyping and designing beyond rest-of-life technologies the third wave in HCI provides so-far [2].

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