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Heuristic for brand artefacts co-design: a computer-mediated proposal

Catarina Lélis and Óscar Mealha

Brands undeniably constitute a significant asset for a company and are usually specified in its organisational strategy. Typically, employees are not invited to participate in debates or decisions about branding since they access brand information in a unidirectional way. Many of them do not even know how to convey appropriate messages and fail to recognize the importance of brand consistency. In this paper we propose a heuristic for an interaction structure aimed at brand artefact co-design, through a computer-mediated platform, so that employees may learn about the brand, develop brand knowledge, propose meaningful brand artefacts and manage the evaluation of their peers' proposals. We prepared a non-functional prototype of a Participatory Brand Centre and tested it in focus group sessions with the University of Aveiro's employees. We found that though our proposal is consistent with employees' brand-related needs, authorship is a sensitive issue.

Keywords: brand artefacts, co-design, employees, heuristic, computer-mediated communication

Introduction

The perception that employees have about what their organisation stands for has grown in importance for identity and image auditing, as employees are increasingly considered the main agents of organisational reputation (Ind, 2007; Ind and Bjerke, 2007). On the other hand, employees can only defend and use the brand properly if they have a deeper understanding of it. Employees must know the organisational identity of their company so that they can play a committed role in how they communicate and expose it to others (Ackerman, 2000; Punjaisri and Wilson, 2007; King and Grace, 2008).

Moreover, as communication elements, brands no longer fit the historical model of information transmission proposed by Shannon and Weaver, particularly since the one-way approach has been (or is being) supplanted, as several scholars and experts have advocated (Arnhold, 2010; Burmann and Zeplin, 2005; Harris, 2007; Ind and

Bjerke, 2007; Merz, He and Vargo, 2009; Neumeier, 2006; Schultz and Hatch, 2006). Such re-orientation requires a new kind of organisational philosophy, which must be established and assimilated by everyone within the organisation: aside from the fact that all human resources should be minimally familiar with the brand identity, they should also realise that their participation in the brand leads to the co-creation and conversion of existing knowledge, and may potentially represent added value, through meaningful contributions — which may emerge from experiencing brand artefacts and engagement in internal branding activities (Ind, 2007).

We argue that brand identity and brand experience should be relevant subjects for all employees, who should access brand information and externalise their brand knowledge to convey appropriate messages and to use the brand in a consistent way.

In this paper we propose a *Ba* for brand artefact co-design and a heuristic for brand experience and co-creation of brand artefacts, with preliminary assumptions based on a thorough literature review and confirmed in focus groups conducted at the University of Aveiro, which recently had its brand design changed, leading to inconsistencies in the application and use of the brand.

Literature review

In their seminal work, Nonaka and Takeuchi (1995) propose two kinds of knowledge (explicit and tacit) and advocate knowledge as a critical success factor for organisations. The main purpose of knowledge management is to encode and convert individual knowledge into organisational assets, as elements of the organisational identity that can be shared with other individuals, who may, in turn, work on and modify them (*idem*).

However, within organisations, the idea of knowledge sharing and ownership is not that simple. Jarvenpaa and Staples (2001) explain that individuals only share their knowledge with workmates when they consider that knowledge to be the property of the

whole organisation, i.e. collective knowledge that can be applied in collaborative activities and, thus, necessarily shared. The domain of a social identity affecting the whole organisation seems to bring with it clear benefits for knowledge integration. Therefore, identity is something inherited, generated by the continuous accumulation and renewal of knowledge. A properly managed identity system would be the first step towards the creation, conversion and transfer of brand knowledge, embodied in identity artefacts of varying tangibility (Masino and Zamarian, 2003; Moingeon and Ramanantsoa, 1997; Morgan, 2006; Rafaeli and Pratt, 2006; Schein, 2010; Schultz, Hatch and Ciccolella, 2006; Vilnai-Yavetz and Rafaeli, 2006) and, consequently, of varying explicitness. Organisational artefacts, which are identity vehicles, are likely to communicate identity more effectively to internal audiences, allowing all employees to collectively assume that identity. Thus, organisational identity is strengthened by the conversion and integration of collective knowledge. Such is also the case with brand identity. Brand identity consists of a set of tangible and intangible organisational artefacts, symbolic, functional and aesthetic products (Vilnai-Yavetz and Rafaeli, 2006) that are conceptualized and implemented in order to explain organisational methods, behaviours and routines. They are essential to brand design activities.

Employee participation

Involving employees in activities whereby they participate in joint decision-making — situations that Buur (2013) describes, applied to business issues — allows them to be innovative and consolidate the information shared, as well as experience the brand (which is useful for their own brand alignment). Under these circumstances, employees get a better appraisal of their role and commit to the brand promise, which they must represent and assume (Chong, 2007), enabling them to perform actions that will enrich the brand (McEnally and De Chernatony, 1999). Indeed, brand knowledge is a

significant factor in employees' participation in internal branding activities (Mangold and Miles, 2007), particularly when they are expected to co-design, in an act of collective creativity (Sanders and Stappers, 2008).

Schultz, Hatch and Ciccolella (2006) advocate the importance of giving employees the opportunity to explore, experience and use organisational and brand artefacts, thus allowing them to process and enhance the meanings of these artefacts and eventually produce co-designed contributions with different and new meanings. Furthermore, Thorpe and Gamman clearly state that 'Designers do not have the control over resources that would allow them to set and fulfil their own agendas; hence they routinely deliver design that serves the interests of the market over those of society: shareholders over stakeholders' (2011, 220). Accordingly, Feast (2012) argues that designers should exploit and take avail of the knowledge of different stakeholders in order to develop a broader and shared knowledge, enabling organisations to become better prepared at dealing with society's wicked-problems.

Academics and practitioners also welcome this participatory design focus: designer Marty Neumeier's perspective is that brands are inherently flexible so they should be considered as constantly evolving. He welcomes interventions from non-specialised individuals, provided a brand's most basic and explicit design attributes are not lost nor violated (2006). Fischer and Scharff (2000) discuss the relevance of engaging workers in design activities through meta-design approaches. Fischer (2007) states that meta-design's basic assumption is that not every possible use and problem can be fully anticipated at the moment of conception and creation (*design time*). Only after implementation (*use time*) can users discover mismatches between their needs and what the artefact actually provides. Thus, meta-design overcomes this limitation by allowing users to contribute towards the functionalities, meanings and contents of

systems, which are set to remain in a state of constant development because they cannot be defined, once and forever, in design time (Björgvinsson, Ehn and Hillgren, 2012).

So it is, again, with brands. Therefore, organisations should make available appropriate infrastructures to facilitate brand co-design and the co-creation of brand knowledge.

A Ba for brand artefacts co-design

Ba is a Japanese term that represents a context in which 1) it is possible to openly interpret and assign meanings to information; 2) individuals can reflect on their own and others' experiences and 3) new knowledge is subsequently created. Ikujiro Nonaka adapted this concept within the management framework to be conceived as a “space” for sharing and for the creation of knowledge, which can occur individually, at informal meetings, in moments of team-work, in classrooms, in emails circulating via multiple entities, or even through contact with customers or other stakeholders, in a given organisational context. It can be physical, virtual, mental or any combination of the above (Nonaka and Konno, 2005). According to these authors, to participate in a *Ba*, individuals must overcome their own limited perspectives and physical boundaries, so that they can be effectively creative.

Sharp™ created a *Ba* to accumulate a customer knowledge-base which allows project teams to develop new product concepts and proposals. In addition, by managing several *Ba* in their stores, and by continuously building and testing hypotheses, 7-Eleven Japan™ successfully creates knowledge: local store employees accumulate tacit knowledge and market feelings (which they cannot explain easily) about customer needs through long-term experiences in dealing with them. Such knowledge becomes explicit when these employees, even part-time workers, are given the responsibility to order products based on their insights (Nonaka, Konno and Toyama, 2001).

Furthermore, according to meta-design assumptions, a *Ba* should be flexible and scalable, adapting as participants learn. It is also possible and desirable to take the Web (with its social positioning) as a primordial means of communication, as it allows the expansion of creativity, both individual and collective, decentralising the co-design process (Fischer, 2007).

Neto & Choo (2010) suggest that the use of information and communication technologies (ICT) can increase the scale and reach of knowledge creation across an organisation and the efficiency of how that knowledge is shared and accessed by employees. All computer-mediated communication (CMC) activities that capture, store and provide efficient access to knowledge (Alavi and Leidner, 2001; Tee, 2005) are defined by their interactive context, which allows the sharing of beliefs and the expression of new ideas. In a recent study of communication within collective innovation communities, Paulini, Murty and Maher (2013, 90) highlight that ‘When individuals from a diversity of backgrounds become involved in online innovation, their collective focus can be used to address complex problems that benefit from multiple perspectives’.

Therefore, a *Ba* enables the accumulation of knowledge resources and assets (information) such that they may be integrated in a cyclical, interactive and ecological manner. We believe that a *Ba* for brand artefact co-design should be based on three fundamental criteria:

- Individual or collective/shared brand-related learning experiences;
- Opportunities for participation and for creative and sustainable brand exploration;
- Employees are allowed to perform additional roles, beyond those usually assigned by labour contracts.

The *Ba* used in this research is essentially supported by an online community, open to the overall workforce, in which power, control, creativity and responsibility are distributed. Thus, our research question is: ‘What structure should support a *Ba* for brand artefact co-design?’

Proposal for an interaction structure

We believe that a *Ba* for brand artefact co-design should be governed by three domains of interaction (Figure 1):

- *Mentoring* towards brand knowledge;
- *Co-design and Transfer* (C&T) of brand artefacts;
- *Evaluation* of brand artefacts.

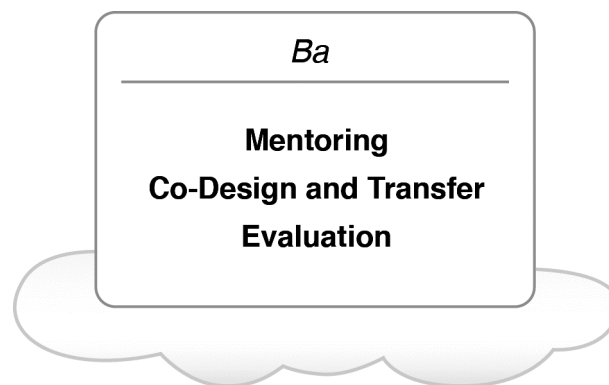


Figure 1. — The three main domains of the interaction structure for brand artefact co-design

In these domains the user can manage brand information in either or both of the following two ways: 1) sequentially, beginning with Mentoring, which should provide conditions for C&T, and in turn allows the user to evaluate; 2) in a non-sequential or irregular manner, so that the user can choose how to experience the brand (Figure 2).

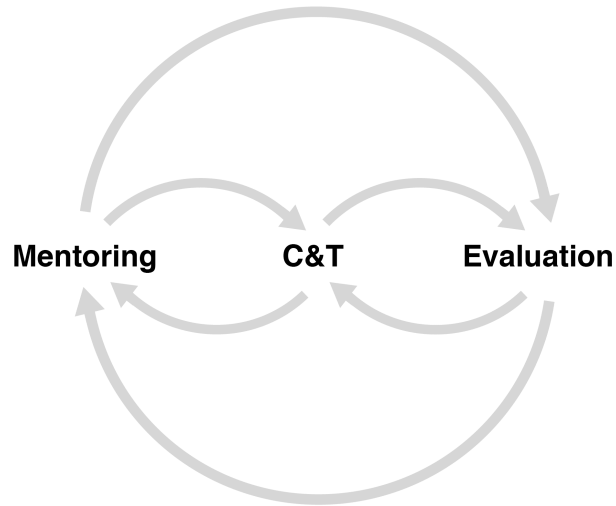


Figure 2. — The iterative structure of the *Ba* for brand artefact co-design

Indeed, it is the combination of these two approaches that defines the ‘eternally mutant’ principle, which characterises artefacts built under co-design, involving the participation of many individuals, over diverse and differentiated interventions, during *design time* and *use time*.

Mentoring towards brand knowledge

Besides their own overall understanding of the brand and what it stands for, it is essential that all participants 1) have access to basic information about the strategy underlying the brand; 2) understand the brand design standards and 3) are endowed with sufficient visual literacy to be able to represent their own ideas and interpretations of the brand, without damaging it. It is, therefore, a process of orientation of brand knowledge, which involves observation and retention of information, but above all, trial and error, especially when converting tacit into explicit knowledge. In short, it is about a learning process, since ‘learning is a participatory process that involves doing, becoming and belonging, not simply acquiring’ (Barab *et al.*, 2001, 76).

Fischer (2009) proposes that both educational and labour environments should be reconceptualised, becoming spaces in which individuals are both contributors and learners and wherein peer-to-peer learning is supported by fellows who do not see themselves as teachers, but as mentors/facilitators. Such new learning models are strongly associated with the use of ICT, which minimise learning efforts and ensure better access to resources and to a larger number of interactions (McLoughlin and Lee, 2007). In this light, interactions have a crucial and decisive role in learning and knowledge development.

Learning the brand is thus more related to a process of connecting than of acquisition and, should consequently be oriented along these lines. Such guidance can be provided by individuals (who may be specialised peers or outsourced professionals performing the role of mentors, such as designers) or mediated by CMC systems, endowed with algorithmic capacities, appropriate for this purpose. However, as proposed by Punjaisri and Wilson (2007), who identify learning programs and ICT as the main mechanisms used in internal branding activities, guidance can also be provided by these two agents combined — mentors supported by CMC systems — which, in the present research context, we consider the preferred scenario.

We advocate that when learning and communication processes are computer-mediated, individuals foster a better understanding of the community in which they participate, influenced by the interactions they experience and by their own interpretation of such interactions. Therefore, we suggest that it is essential to provide the tools best suited to such exchanges, so as to enable the co-creation and management of brand knowledge (Lélis and Mealha, 2012, 2013, 2014).

Co-Design and Transfer (C&T) of brand artefacts

Considering that the main goal of meta-design is to allow anyone to act as a designer,

human resources should, in the appropriate circumstances, be given the opportunity to freely experience brand artefacts in situations relevant to themselves. In addition, they should participate in activities aimed at co-designing brand artefacts, where appropriation and gamification are key skills. According to Jenkins (2009), appropriation is the ability to extract content from a given context and to re-contextualise it again, giving it new meanings. Gamification is widely recognized as a way of motivating individuals to learn different contents from those they regularly deal with; it is also a means of exploring and processing not only knowledge but also decision-making (Zichermann and Cunningham, 2011). Accordingly, two of the purposes of design games identified by Vaajakallio and Mattelmäki (2014, 64) are of particular relevance to our *Ba* proposal: 1) ‘empowering (...) people who are not traditionally part of design processes but are influenced by design: to provide hands-on tools for establishing a common language between designers and users and to involve users in discussions on existing and future alternatives’ and 2) for the engagement of ‘diverse stakeholders in expressing, negotiating and generating a shared understanding of users, use contexts and technology in early concept design’ (idem).

The meaning of a brand is produced by those who intellectually, emotionally and aesthetically engage with brand-related artefacts, words or events, so that these explicit symbols represent tacit knowledge — ideas, feelings or experiences (Hatch, 2007). Ind (2007) states that one of the benefits of involving employees in defining the brand and its artefacts is that it is highly likely that such an experiential process will become a cathartic one, as it encourages them to reflect on the nature of the brand, to understand its attributes and assess the whole range of meanings arising from the contributions of all.

We can conceive the design and subsequent sharing of brand artefacts by adopting these same assumptions (Lélis and Mealha, 2012, 2013, 2014). Thus, the brand 'code' becomes accessible to every employee through a framework that withdraws brand design from the traditional and closed perspective in which 'a corporation produces a brand's physical embodiment, exclusively narrates the brand's text, unilaterally directs the brand experience, and broadcasts the brand's meaning' (Pitt *et al.*, 2006, 119) to a diametrically opposed and open perspective, in which individuals perform as co-designers.

Evaluation of brand artefacts

The validity and conformity of these contributions within a CMC platform are evaluated at several moments.

The first moment will be supported and mediated by the CMC system so that it can occur synchronously. It is assumed that participants will strive to make their ideas clear and will seek to represent them using a common and explicit code to express all essential brand values and their physical characteristics, being encouraged (but not enforced) to comply with the rules regulating the brand. The CMC platform should thus help participants to experience the brand, while acknowledging these precise norms and guidelines.

The second moment of evaluation takes place among the community as a whole, wherein the group of participants must collectively be given an opportunity to comment on their peers' contributions, providing relatively quick feedback. Simple voting scales also allow employees to easily criticise and classify the brand artefacts that others have created (taking into consideration overall brand appreciation). The aggregation of brand-related information and individual tacit brand knowledge facilitates the

involvement of human resources in evaluating brand artefacts proposed by their peers, thus harnessing their ‘collective wisdom’ (Surowiecki, 2005).

The third instance of evaluation aims to validate any brand artefacts that employees may propose. A participatory approach leads to a reduction in control over the brand so Reichwald, Möslin and Piller (2008) propose the appointment of an individual to act as gatekeeper, who will perform a screening role. Following the second moment of evaluation, the gatekeeper will thus submit the top ranked brand artefacts for the consideration of senior management. A single individual, who is firmly responsible for the brand, usually assumes this role.

Research methodology

To validate the proposed structure it was important to choose an institutional universe in which a deeper and empirical analysis could be made. The aim was to address, primarily, the participation needs of employees working in service provider organisations, such as universities. A case study was conducted in the academic context of the University of Aveiro (UA).

The broad approach followed was an inductive one, aimed at understanding the social context through the interpretation of participants. Academics are especially rich sources of tangible ideas for the brands that represent their universities: they establish numerous contacts, present research at conferences worldwide, exchange artefacts and souvenirs, and collect items of merchandise from the many different meetings in which they participate. Typically, they are critically minded and like to have their opinion heard at the institutional level. Therefore, they seemed an interesting public for this study. Moreover, UA recently changed its brand design (logotype and signage system), leading to inconsistent usages and somewhat unacceptable brand applications by employees, both teachers and non-teaching staff. Furthermore, UA was chosen due to

its vast IT infrastructure, which ranges across all university areas and services. From a technological standpoint, UA is well prepared and its employees are accustomed to using ICT in all their varied functions, and they know and recognise most of the interaction paradigms associated with these technologies.

Five focus groups were set up and the participants (teachers and non-teaching staff) were invited to discuss the subject. They were shown a non-functional prototype of a Participatory Brand Centre (PBC), with the purpose of validating the proposed *Ba*. The main objectives guiding the focus groups were to assess the willingness/motivation to participate in activities that may enhance UA's brand, and to present the mid-fidelity PBC in this institutional context, so as to raise comments and/or suggestions.

Given the importance of achieving a relaxed atmosphere in each group, and considering that the number of teachers and non-teaching staff in UA are distributed in a ratio of three to two, we organised participants in three groups of teachers and two groups composed of non-teachers, taking into account their professional categories and time within the Institution. We had the participation of 17 teachers and 15 non-teaching staff. Out of a total of 32 individuals, 18 were female and 14 were male.

The planning of the focus groups (FGs) included the creation of a flexible yet comprehensive script, to ensure that the selected technique would answer the research question, but also as a way to ensure minimum consistency between FGs (Krueger, 1994; Gaskell, 2000; Casey and Krueger, 2010; Morgan, 1997).

Besides the essential presence of a moderator, each session also included a technical observer, who took control of audiovisual equipment. Recordings of all the FGs were fully transcribed and sent to participants for validation. The meeting rooms were prepared previously, with seating in a U formation so that participants could see each other during the whole session. After a brief introduction and topics review, the

first themes to be discussed were of a general nature and easy approach, to enable the immediate participation of all (Morgan, 1997). Only then did we introduce more specific questions that prompted some reflection. Finally, the presentation and discussion of the PBC prototype took place.

Findings

Content analysis of the collected data was achieved with the support of WebQDA, a web-based software for qualitative data analysis. The overall content analysis process is visually depicted in Figure 3. After careful reading of the five transcripts, it was possible to highlight common themes, together with themes that had already been anticipated (Krueger and Casey, 2010).

We intersected our predefined analysis codes with the three domains that define the interaction structure of the *Ba* for brand artefact co-design (Table 1). The focus of analysis was much more on the meaning of generated content and on its proximity to the theoretical framework and inductions developed previously. At the same time, we considered the frequency of terms or topics to verify the relevance of our selections.

Table 1. Detail Questions and Analysis Codes.

Guidance Question and Detail Questions	Analysis Codes
Would it make sense to implement an online resource based on the presented?	
What is the possibility of implementing a PBC in University of XXX?	PBC Implementation
What would be the advantages for University of XXX and its staff?	Advantages
What features seem to be unnecessary?	Unnecessary Features
What features might be missing?	Missing Features
What kind of obstacles could derail such resource?	Obstacles
Personally, what would take you to participate in such a platform?	Propensity

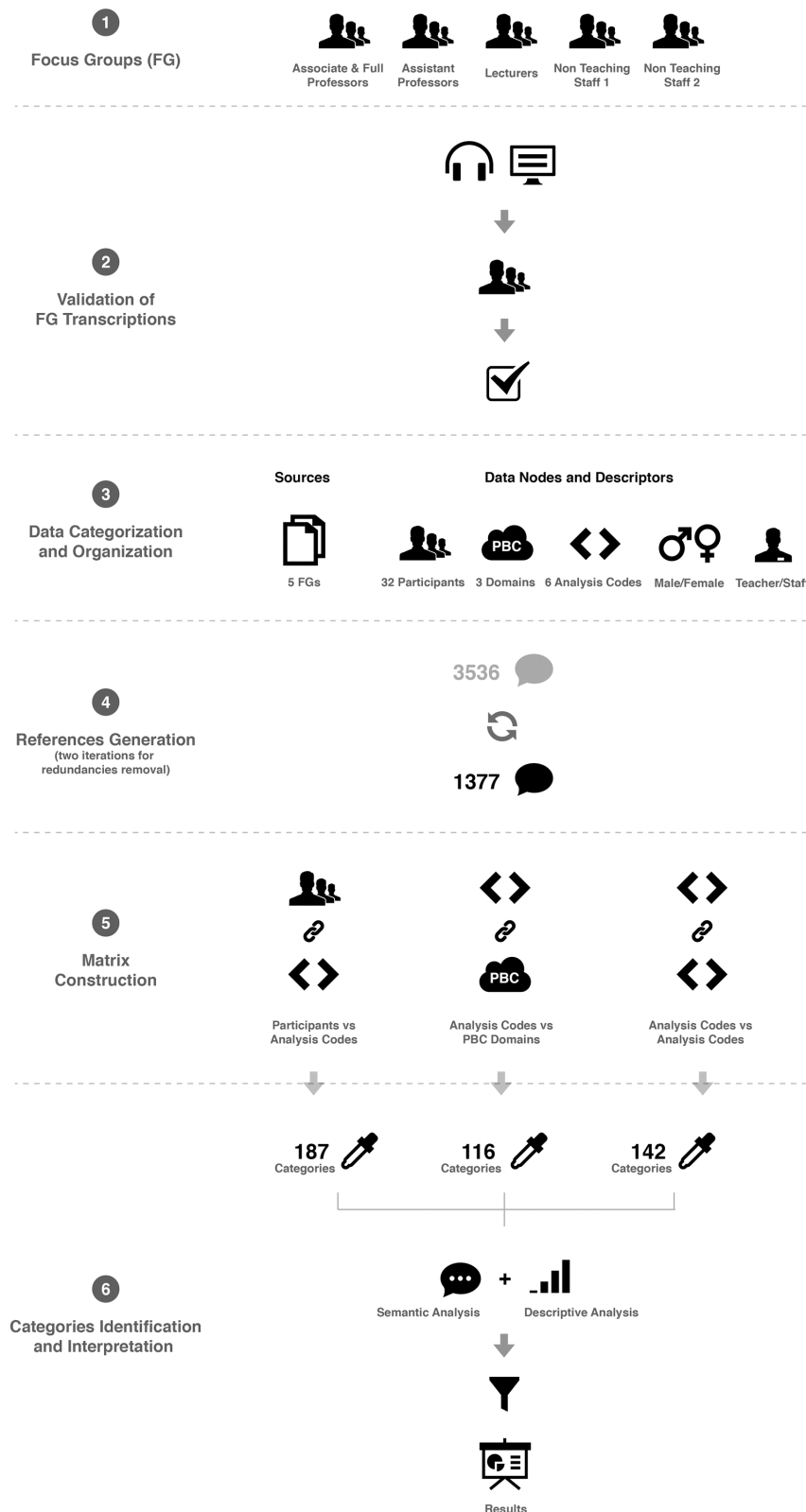


Figure 3. — The process of Focus Groups content analysis.

This exercise allowed predefined analysis codes to be used in order to find references in their respective categories that were objectively related to each of the proposed *Ba*'s three domains (Table 1). Overall, the analysis code with the highest number of references was 'PBC Implementation', which was already expected, since it is natural that participants will share their opinions with the support of the organisational context they know.

It was in the *Mentoring* domain that participants found more novelty and usefulness for their work context, classifying its related features as advantages, which had a great influence on their willingness to eventually participate and use a PBC. In these cases, the most significant categories are those regarding the main technological feature, Studio, since it provides simplified access to graphic brand guidelines and a pedagogical approach. In Studio users can experience the brand's graphical, physical and explicit attributes (such as its logotype or visual symbols) through an embedded image editor, which dynamically signals incorrect brand applications, based on the brand's graphical standards.

So, I'm entering Studio and ... 'let me see... where can I find UA's logo, let me see if I'm right in using it; ok, I'm not [...] let me do that again' ... [Participant 22, Non-Teaching Staff-1 group].

Studio can be extremely useful because it allows those of us who don't know a thing about design to immediately get some evaluation of what we're doing ... I think it really would be a very cool feature! [Participant 18, Non-Teaching Staff-1 group]

Advantages are very much concerned with the possibility of a PBC being implemented at UA. However, in this regard, emphasis was given to comments that reveal a general perception of the *Mentoring* domain and its consequent learning aims,

and the perceived relevance of graphic brand standards/guidelines so that participants' usage can generate satisfactory contributions, not only for the creation of professional resources, but also to generate ideas for the enhancement of the organisational brand.

I think people do not understand that if you make that green a little darker it changes everything. It's not the same brand anymore... [Participant 20, Non-Teaching Staff-1 group]

Concerning the *Co-design & Transfer* domain, participants see several links between the prototype presented and the possibility of implementing a PBC at the UA, revealing, explicitly and implicitly, an apparent willingness to participate in such a resource. They provided ideas associated with what they consider to be added value, suggestions of features they consider to be missing, and resources to overcome the obstacles they listed. It should be noted that one of the most common themes in this domain involves brand authorship and property, which seems to be a concern for these potential contributors:

Isn't that risky? I will be making available a set of ideas [...] isn't there any possibility of appropriation of my idea which is still in development, by someone else? [...] [Participant 1, Associates and Full Professors' group]

A place with all the graphic rules and official documents would be extremely useful [...] A place to share, also looks good, because when I share it's in this new social logic and I know there will be some kind of remix, and that someone else will pick up what I did and will adapt it. [Participant 3, Associates and Full Professors' group]

Stimulus to participation and consequentiality are also themes with expression in the *C&T* domain:

Probably many employees will think 'why should I be wasting my time with this PBC thing when no one ever listens to me?' [Participant 11, Assistants' group]

Quite honestly, the PBC idea is excellent, but I fear it will tend to be inconsequential because, most certainly, top management will not get involved. [Participant 25, Non-Teaching Staff-1 group]

Regarding the *Evaluation* domain, participants established positive links between the prototype presented and the possibility of implementing a PBC at UA. However, in this case, there were a high percentage of references to ‘Missing Features’:

The Don’t Like option is missing. It is for the community itself to eliminate an artefact that sucks... It would be necessary to have a more accurate algorithm like, let’s say, a specific number of Don’t Likes from different departments. [Participant 8, Assistants’ group]

The advantages that participants identified in this domain are very much associated with brand citizenship behaviours, consequence and participation. They also acknowledge the fact that community evaluation may ease the selection of some artefacts:

OK, let’s be optimistic, can you imagine? — my idea having institutional consequence... Imagine this branded chocolate bar was my idea, and that it goes along and becomes available to everyone... That’s one thing I gave to the institution! [Participant 19, Non-Teaching Staff-1 group]

On the other hand, they also revealed concerns with ownership issues (regarding, again, content property):

Will this [platform] work as a ‘community dictatorship’ or can specialised evaluators retrieve proposals that have been forgotten and that they, as experts, think may help brand valuation? [Participant 13, Lecturers’ group]

Discussion

It turned out that the *Mentoring* domain was considered the most interesting; in its most

representative technological feature no unnecessary or missing functionalities were registered, and no functional obstacles were identified.

The *Co-Design and Transfer* domain was not considered a novelty (in fact, it embodies the role of an online community and social network dedicated to the brand), but revealed unexpected concerns with acknowledgment, authorship and content protection.

Finally, the *Evaluation* domain raised more questions than all the others, although participants recognised the advantage of being co-evaluators.

It appears that the issues of most concern to UA's employees and which they unanimously consider relevant are the involvement of middle and senior management (deans and provost team) and the recognition of authorship and protection of property contributions made in the PBC. Thus, despite its internal approach (which would require registration) and regarding the academic context of UA, with its somewhat weak social identity, a PBC aimed at holistically promoting the brand would need some sort of content protection.

Moreover, for such contributions to be published, employees would need to understand how their involvement in brand valuation would be acknowledged and whether their ideas are to be implemented or not. Besides manifestations of altruism, most individuals need to know that their participation will lead to certain individual or collective benefits in the short, medium or long term. In other words, the mere fact of publishing an artefact should be linked to some positive return, with some means of recognition from the community and from middle and top management being the first indication of consequence.

A heuristic for brand artefact co-design

Since we adopted UA's organisational context, there are no pretensions of

generalisation. However, we can aim for transferability i.e., the ability to transfer results to other groups or contexts, in similar conditions (Mantzoukas, 2004).

We thus followed the conceptual framework of accessibility and universal design requirements proposed by Stephanidis *et al.* (1998): the proposal of general principles, for which some guidelines may be specified and from which a set of recommendations can be developed for each given context. Although they might not always be adaptable to all contexts, heuristics can be of great usefulness, sparing time spent analysing and evaluating all possibilities (Oliver and Roos, 2002).

Therefore, we have prepared a heuristic for a *Ba* aimed at brand artefact co-design, consisting of principles and guidelines, but without any recommendations, which would largely depend on each organisational context. The heuristic approach hereby aims to propose an intervention formula that maximises the likelihood of a specific effect associated with one or more events that may occur. The specific effect is brand valuation, boosted by an online PBC, driven by employees' co-designed contributions. Thus, the three domains of the interaction structure for brand artefacts co-design define the basic principles of such a formula:

(1) *A PBC must include resources and must maximise events for brand learning and brand experimentation.* In fact, it is with this in mind that employees begin a simultaneously cognitive and affective exploration of the PBC as a *Ba*, through the exchange of information, the development of brand knowledge, and the opportunities for informal individual or collective co-design.

(2) *A PBC must foster collaboration as well as the sharing and transfer of brand artefacts.* Employees should be invited to contribute to brand design, proposing relatively tangible artefacts. Gamification is an essential condition for visual literacy to

develop, so that creativity can occur. Collaboration may happen at any moment during the use of the PBC, individually or in collective situations.

(3) *A PBC must explore the right to expression and the possibility of evaluating brand artefacts.* Employees can and should evaluate brand artefacts published by their peers, in a transparent, informed and simplified way, thereby also contributing to brand knowledge, and potentially leading to the implementation of certain artefacts.

Conclusions and further research

Since internal and participatory design activities are still unknown or neglected in many organisations, this paper aims to draw brand designers and managers attention to the experiential perspective, which provides significant opportunities for co-design, and for the participation of employees in design processes.

By adopting strategies of brand artefact co-design, involving every employee, organisations must ensure a climate of creativity and of knowledge transfer/combination, which is evident to all. Reward systems should be designed and explained to those who will be sharing their individual knowledge with the organisational collective. Organisations should thus encourage employees to maximise their human capital, developing or optimising skills through participatory activities, involving themselves in pleasurable and meaningful experiences, after identifying and committing to the brand and the organisational identity.

The results of both the literature review and focus groups revealed that CMC can make a huge contribution in these participatory processes, particularly with the involvement of specific online communities that promote prosocial behaviours and allow the integration, conversion, sharing, reuse and evaluation of all the scattered

brand-related information and knowledge. We have presented an interaction structure to support such processes and a heuristic to aid its implementation.

Due to the selection of a public academic context (with particular characteristics) as a case study, it is difficult to fully extrapolate these findings into broader universes or other institutional contexts. Thus, any attempt at generalisation could neither be linear nor direct, in any case. Transferability would be the right approach in order to apply the results obtained to other similar cases, such as other higher education institutions. Future research will include other organisational contexts, namely within a corporate context, where brand artefacts can constitute a fundamental business asset, which is not such a pertinent condition within the academic organisation eco-system. The academic workforce was excellent to test the collective design propensity and to what extent the organisation's collaborators would adopt it in their daily routines.

Nevertheless, we believe that, regarding human capabilities and overall engagement with the brand, it will not be very different if we approach a University with 1,600 employees or a medium to large standard corporate workforce. Naturally, such a company will need to fulfil certain requisites:

- Be open to collaboration, to co-design and to the participation of non-specialised individuals in highly specialised activities;
- Ensure an ecology of creativity and knowledge;
- Have one or more brands significant to its business(es);
- Hold a significant body of employees, which would justify the need of an online *Ba* and, therefore, ensure the sustainability of collective intelligence and its permanent relation to prospective innovative business intelligence.

Finally, recognition, as a sign that the organisation is aware of its employees' contributions, will be the starting point for a conscious and informed participation process that is both interested and genuine. Thus, organisations should encourage employees to maximise their human capital, developing or optimising skills through participatory and 'gameable' activities, involving them in pleasurable and meaningful experiences, after which they can identify, learn and own the brand.

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Table 1. Detail Questions and Analysis Codes.

Guidance Question and Detail Questions	Analysis Codes
Would it make sense to implement an online resource based on the presented?	
What is the possibility of implementing a PBC at the University of Aveiro?	PBC Implementation
What would be the advantages for the University of Aveiro and its employees?	Advantages
What features seem to be unnecessary?	Unnecessary Features
What features might be missing?	Missing Features
What kind of obstacles could derail such resource?	Obstacles
Personally, what would it take you to participate in such a platform?	Propensity

Figure 1. — The three main domains of the interaction structure for brand artefact co-design.

Figure 2. — The iterative structure of the *Ba* for brand artefact co-design.

Figure 3. — The process of Focus Groups content analysis.