Branding and Communication Goals
for Content-Intensive Interactive Applications

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Abstract

Requirements engineering has traditionally focused on identifying functional and non functional requirements to inform design, and to ensure that the product under development accommodates the needs of the end users, the goals of the different stakeholders, as well as the technological, organizational, and business constraints. For requirements analysis of content-intensive interactive applications, we propose to take a wider perspective driven by the concepts of brand, brand value, and communication goal. We highlight the pervasive impact of this kind of "non functional requirements" on various design dimensions of content-intensive interactive applications - contents, lay-out, information architecture, interaction, services - in order to create not only a functional or informative experience, but also an emotional relationship with the artifact and the brand underneath it. The paper discuss a case study to exemplify our approach, sets the founding elements for brand&communication-driven requirements analysis in content-intensive interactive applications, and provides a modeling framework for representing the results of this process.

1. Introduction

In the global economy, as an organization or institution has to (re)position itself on the market, it has not only to define or rethink the overall business strategy, but also (re)shape the communication towards the various stakeholders (current and potential clients, shareholders, other institutions, organizations, sponsors, etc.). In this process, the concept of *brand* in its multiple declinations – e.g., *brand image, brand experience, brand awareness* – plays a crucial role.

If, etymologically, brand just means "identification mark or sign" (given to a product or service and reified by a name associated to a visual sign, symbol or logo),

its conventional meaning is much richer than this. For a company or an institution, the *brand* is "who we are, what we believe, why you should trust us" [1]. It is "a promise that the company or institution can keep to all its stakeholders: its customers, trades, stockholders, employees" [2]. The persistent communication of this promise brings to the creation of a *brand image*. This is a set of symbolic constructs within the minds of people that consists of all the information, expectations, values, emotions, or attitudes that "consumers" generally, both locally and globally, associate with an "entity" – being it a product, service, company, institution or, at a broader level, a country or a culture. As a customer gets in touch with or lives by any concrete reification of a brand, a *brand experience* takes place. It consists of all the perceivable elements (communication artifacts, physical products, people, services, events,…) that give to the customer the experiential, comprehensive feeling of the brand. It is everything that creates not only a functional, but also an *emotional* relationship with a product or service *and* the brand underneath it. A brand experience should induce *brand awareness,* i.e., the capability of recognizing "your" brand as "yours", identifying it under different conditions, and understanding the distinctive qualities that make it better than the competition.

Why are these concepts relevant for requirements engineering?

The concept of brand is pervasive in the whole domain of ICT interactive products, being one of the keys of today's and future success of many of them. Think of the Apple's iPhone, for example. It is generally acknowledged that the huge interest raised by this product stems from the fact that it promises to be a fantastic brand experience: *"The iPhone is a typical piece of Apple's design: an austere, abstract, Platonic-looking form that somehow also manages to fell warm, organic and ergonomic"* [9] – which reads: something

that conveys all Apple's brand values.

Adherence with the corporate brand is a key requirement for any big company. Oracle, for example, provides strict branding guidelines for their software applications [14].

A large part of web based communication today is *branded digital communication* and is shaped as a *brand experience.* Its scope goes beyond profit oriented contexts, since also not strictly market-driven institutions (e.g., educational or cultural organizations, governmental bodies, health structure, or charities) are, or would like to be, a brand. Web technology offers both commercial and commercial-free entities a chance to establish or re-enforce their brand in a way that they have never been able before.

Designing branded ICT products is at the intersection of business, marketing, industrial design, communication science, and technology. It does not only require a sophisticated understanding of a client's branding strategy, a deep comprehension of markets, people, and cultures. It also entails a broad understanding of technology and new media. As such, shaping an ICT product as a brand experience is no more a matter for industrial designers and marketing professionals only. It is also a matter for requirements analysts, ICT application designers, and communication scientists.

This paper investigates how branding issues can be systematically taken into account within the requirements management process in the domain of *content intensive digital communication products*. An example from a real life project, carried out for the Ministry of Tourism in Syria, illustrates our approach (section 2). From the experience gained during this project we developed a goal-based modeling framework for the requirements of content intensive digital communication (section 3). The model was validated in a number of following projects, mentioned in section 4, where we also relate our work with the current state of art in RE and draw the final conclusions.

2. Case Study: Syria Tourism Project

Funded by the Syrian Ministry of Tourism and the European Commission (Europe/Aid Program) [11], the "Syria Tourism" project implements a wider governmental strategy that aims at promoting tourism flows in Syria and stimulating tourism-oriented business relationships. The project goal was to create international awareness about the cultural heritage of Syria and the country's potential as a tourist destination, by designing and implementing various communication "actions", including publications,

events, online and offline multimedia products. The project ran from March 2006 to November 2006.

Our team was responsible for the design of the overall communication strategy, for the evaluation and re-design of the website of the Ministry of Tourism (http://www.syriatourism.org.), and for the design and implementation of a set of complementary multimedia interactive products: the web site of the Syrian Department for Antiquities and Museums, and three multimedia interactive narratives (available on Web, CDrom, and iPOD) about major archeological sites and historical places in Syria (Palmyra, the Dead Cities, and St. Simeon).

2.1 Target Profiles and Brand Values

Due to recent political and social events, tourism flows to Syria had dramatically decreased in the period of the project, and the international reputation of the country among non Arab people was one of the lowest ever. Since the very early phase of our work, it immediately emerged that the achievement of the *business goals* of "promoting tourism in Syria" and "fostering tourism-oriented business relationships" passed through the resurgence of the international image of the country, and that fostering positive feelings towards Syria was the key concern for all the communication artifacts we were expected to build.

We had therefore to identify a *brand* for Syria that could be effective especially for *non Arab people* (the main target of the business strategy of the Ministry of Tourism), and to eventually translate that brand into consistent design solutions for the multimedia communication products. Our group, which included a brand expert, worked in strict cooperation with a local team of the Syrian Ministry of Tourism to start eliciting branding aspects (e.g., "what does Syria want to be for non Arab tourists?"), and to gradually identify the messages that the Ministry wanted to communicate to its main target.

Through interviews and meetings with the Ministry staff (see Figure 1) and the Minister himself, various brand assets emerged that needed to be elaborated. For example, because of its ancestral cultural importance, Syria shares with the Western world some important cultural references. Nevertheless, Syria remains one of the most complex and intriguing Arab realities that can be reached in few hours from Europe.

An additional aspect to leverage upon is the absolute friendly attitude of the population: as soon as you get in the country, you immediately feel a sort of quiet closeness and familiar human atmosphere.

Figure 1. Elicitation Meeting in Damascus.

According to brand design methods [18], these assets can be condensed in a set of *brand values*. Brand values capture the expected experience that the brand promises and represent the *feelings* that we want people associate to an entity (the country Syria, in our case). They are attributes of the brand image as it is addressed to a specific target profile. In fact, brand values can be elicited by reasoning at the intersection between business goals and target profile (see Table 1).

Table 1. Examples of Brand Values.

		Business Goals	
		Increment Tourist Flow	Establish business relationships with Syria
Target Profiles	European Bo-Bo (Bourgeois Bohemiens)	*Elegance, Mystery, Charm, fantastic cultural heritage, ancient common roots, closeness*	-
	Families	*Safety (in spite of fear), receiving people, friendly community, closeness*	-
	Business men	-	*Mix of tradition and modernity*
	Tour Operators	*cultural heritage, safety*	*receiving people friendly community*

Brand Values

The questions that may support the elicitation of brand values include the following examples: Given a business goal, what kind of experience do we want (and are able to) to promise to a given target audience? Of course, this promise should be something desirable for the target profile identified. A supporting line of reasoning is also: which assets of Syria (in terms of keywords or key concepts) should be valorized in front of a given target profile? In our project, the brand values elicited included: "fantastic cultural heritage"; "closeness – as to people, culture, and geography"; "ancient common cultural roots", "mystery", "elegance", "charm", "safety (in spite of fear)", "affordable experience", "receiving people", "friendly community", "mix of tradition and modernity", "quality of tourism services".

2.2 Communication Goals

Whereas the role of the brand values is to evoke an experience (in the mind of the specific target), it is important to transform these "promises" into a set of reasonable, concrete, domain-specific, articulated *messages*, which communicate the rational and emotional elements supporting the values. We call these messages "*communication goals*", since they express the explicit will of getting across the brand values to a specific target by means of factual, emotional or rational arguments (see Table 2). Communication goals must therefore provide the high-level supporting arguments that can substantiate the values and convince the identified targets about them. Note that they are not just a refinement or an exemplification of brand values, but rather a tactic interpretation of them. Communication goals are elaborated taking into account various concrete factors and constraints, such as the availability of supporting evidence for brand values. For example, for goal G5 elaborating the values "friendly and receiving people" we should have a significant amount of pictures, videos, and data, to support it.

Table 2. Communication Goals for Brand Values.

Values	Communication Goals
Ancient common roots	**G1.** Syria is the central area of what is known as the cradle of western civilization. It gave birth to ancient alphabets (e.g., the Ugarit alphabet), scientific knowledge, and a sophisticated culture which then mixed with Christian tradition (Syria is the homeland of St. Paul) and Arab one, thus strongly influencing Western culture as we know it.
Fantastic cultural heritage	**G2.** Having been the geographical crossroads of East and West, and the land of multiple occupations over the centuries (Roman, Arabs, Turks, etc.), Syria has one of the oldest and richest cultural heritages in the world and is one of the most beautiful destinations for cultural tourists.
Mystery, Charm, Closeness	**G3.** Syria is a fascinating but mysterious place because of its culture, traditions, food, and landscape, but is so close in time and space to Europe (summarized by the motto: "Syria, so far so close").
Safety	**G4.** Syria is a place where everyone can feel at home (summarized by the motto: "Every person has two homelands: his own and Syria" - attributed to Lord Byron)
Receiving people, friendly community	**G5:** Tourists can experience a warm and friendly atmosphere everywhere in the country, from North to South, from the big cities to the small Beduin villages in the desert.
Mixing Traditions and Modernity	**G6.** Syria is a dynamic place, open to international business cooperation and to technological innovation. **G7.** Syria welcomes contemporary culture (promoting cultural events such as music, theatre, and film festivals)

In elaborating brand values into communication goals, conflicting elements may emerge. Consider, for example, brand values such as "affordable experience", "elegance", "quality of services". They can be respectively translated into contradictory messages, i.e., communication goals, such as "Syria is a quite inexpensive place for vacation", "Syria can offer a sophisticated and charming cultural experience", "Syria can offer world-level hotels and tourism infrastructures". Still, it is the real world that is oftentimes intrinsically contradictory (all the above facts are true in the Syrian reality).

Communication goals should not be considered *per sè*, but as strategic messages (embodying brand values) necessary to reach and convince a specific target group. As such, they have to co-exist, even if in conflict. Conflicts are not solved in a strict sense, but rather mitigated when we consider the association of a communication goal with its target.

2.3 Requirements and Design Elements

Communication goals have to be embodied into a set of *requirements*, i.e., *tangible,* functional and non functional properties of the applications to be designed, eventually reified in terms of content, information architecture, graphics design, operations, interaction styles and services. These requirements inform the design elements that the user will experience, and the proper orchestration of these elements should eventually fulfill the communication goals identified.

For the (re)design of the existing Ministry website and of the new multimedia applications, specific requirements of different nature have been shaped to address the communication goals.

As shown in the examples of Table 3, we tagged each requirement with a double-valued reference (in brackets and in italics): to a specific design dimension (e.g., content, layout, information architecture) and to a specific communication channel (in our examples, website, iPOD, or CD-Rom). Evidently, in content-intensive applications, most of the requirements concern the content dimension. In fact, a content requirement defines the specific (type of) content to be communicated in order to achieve one or more communication goals.

Consider for example the goal G5 (Table 2), which highlights the need of communicating that Syrian people are friendly and peaceful, and G7, which highlights openness to contemporary culture. A number of specific content and information architecture requirements have been elaborated to fulfill these goals in the redesign of the Ministry of Tourism website channel. For example, a section dedicated to illustrate what is "Syria Today" (R1)

needed to be introduced. The idea was to communicate the key features of the Syrian traditions (e.g. cuisine, folklore, dance, festivals) as reflected in the lifestyle and values of the people, promoting the image of a live and receiving country.

Moreover, examples of everyday life (content requirement, R10) had to be provided, that show the familiar atmosphere in the souks, in the streets and in the beautiful *hammams* (popular baths) through videogalleries and pictures. This multimedia material had to be highlighted by making it directly accessible from the home page (information architecture requirement, R11), in order to give it relevance and to provide easy access to web users.

Table 3. Excerpts from the Requirements Set

Communication Goals	Requirements
G5, G7	**R1.** Create a section showing what is "Syria Today" *<content,website >*
G1, G2	**R2.** Provide an overview of the main cultural attractions and tourist itineraries *<content, website>* **R3.** Offer in-depth information on cultural destinations and special sections dedicated to history and cultural roots. *<content, website>* **R4.** Organize access to cultural attractions by main cities *<information architecture, website>* **R5.** Emphasize historical landmarks of the Christian traditions (e.g. Saint Simeon, St. Paul) *<content, website>*
G3	**R6.** offer ethereal graphics, mixing antiquities and modern style *<layout, website/iPod/CDrom>* **R7.** define logo evoking ancestral origins of Ugarit alphabet *<layout, website/iPod/CDroms>* **R8.** define payoff underlying the mystery of a "close" orient *<content, website/iPod/CDrom>*
G4	**R9.** Highlight tourist's testimonials (from different provenance) and press articles, especially those recounting experience of safety and peaceful atmosphere *<content, website>*
G5	**R10.** Provide examples of Syria everyday life. *<content, website>* **R11.** Restructure the access paths so that the above examples are directly accessible from home page *<information architecture, web site>*
G6	**R12.** Use state-of-the-art communication channels (e.g. podcasting services) *<service, iPod>* **R13.** Provide innovative solutions for user interaction *<interaction, website>* **R14.** Emphasize business events and openness to the international community of tour operators *<content, website>*

As a further example, let us consider goal G2 "…Syria has one of the oldest and richest cultural heritages in the world…". When trying to translate this goal in terms of web site design properties, an important requirement emerged, concerning information architecture (R4). Instead of categorizing cultural attractions, as in the original web site, by geographical and administrative criteria such as

"Northern Provinces", "Southern Provinces", "Desert Provinces" etc., which are unknown to the target user, the key cultural attractions needed to be re-organized according to cultural criteria, providing direct access to the presentation of the main old cities such as Damascus, Latakia, Aleppo, and Homs. Organizing interesting attractions by city allowed for an easier access to the venues and provided a richer sense of diversity. Besides, selected locations in Syria should be presented more in depth in a special section (R3) – specifically devoted to cultural tourism – where a comprehensive presentation for the attractions is given, together with all the information that may prove interesting to a potential tourist.

Figure 2 shows how we rendered some of the above requirements through concrete design solutions for the home page of the new web site of the Syrian Ministry of Tourism. Compare it with Figure 3 – showing the original home page of the same web site.

Finally, to contribute to the achievement of the communication goal G6 "*Syria is a dynamic place, open (…) to technological innovation*", we decided that a state-of-the-art technology should be put in place: we have decided to include in the project developments not only content-intensive websites, but also podcasting and rich-media audio-video narratives available both on web (see: www.discoversyria.org) and through off-line channels, e.g., iPod (Figure 4) and CD-ROMs (Figure 5)

**Figure 2. The design of the "new" home page for Syrian Ministry of Tourism Web site:
How communication requirements impact on design elements.**

These service and interaction requirements (respectively, R12 and R13) account for the will to communicate technological innovation and to try to overcome a prejudice of not-so-modern country (G6).

Figure 3. The "old" homepage for Syrian Ministry of Tourism Website.

Other kinds of requirements that derived from communication goals concern the visual communication aspects and fall into the layout/graphics design dimensions – see R6, for example. This issue will not be further discussed, being a common practice in professional visual design.

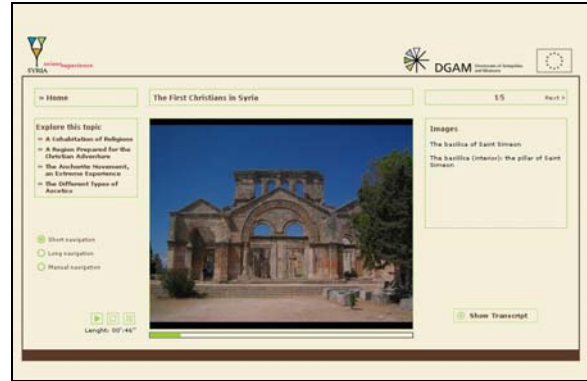**Figure 4. Narratives on cultural attractions (Palmyra) available through podcasting.**

Figure 5. Narratives on cultural attractions (St. Simeon) available on web and CD-rom.

2.4 Lessons learned

From the experience gained in the previously discussed case study, and in a number of other projects, we learned useful methodological lessons.

In content-intensive interactive applications, not only business goals (as it is well known) but also brand issues are key ingredients to explicitly take into account in requirements analysis, from the very early stage to the late phase of the RE process. They both contribute to identify targets and interact with the strategic decisions about the overall goals of the application under design or redesign.

Through the progressive elaboration and refinement of goals, brand elements propagate their impact down to the definition of the application requirements in their globality. In particular, we challenge the misconception that brand issues are just static constraints for layout design (i.e., impacting on logo design, motto definition, or visual properties of the interface) and are therefore a matter for interface designers only. Rather, they contribute to the definition of a special category of goals, which we called *communication goals*, which in turn affect a wide spectrum of requirements related to content, information architecture, navigation, interaction style, and services.

In summary, the investigation of branding and communication aspects helps understand the "whys" that underlie the requirements of content-intensive interactive applications. Integrating branding and communication aspects *inside* conventional goal-based analysis helps deal with the knowledge and reasoning needed in the early phase of RE for this class of systems, and provides a more complete/systematic picture of the overall body of information that informs design.

3. AWARE+: Brand and Communication Issues in Goal-oriented Analysis

The above lessons have been distilled in a *modeling framework* for requirements analysis of content intensive interactive applications, which incorporates strategic motivations, brand and high level objectives of the various stakeholders and bridges the results of the very early RE phase with the later stage of application requirements.

The framework is named AWARE+ since is inspired to and extends AWARE (Analysis of Web Application Requirements [3]), an existing goal-oriented RE method specifically developed for content-intensive *web* applications. AWARE balanced the consideration of users' needs and other stakeholders' goals; these are operationalized into application requirements through refinement and decomposition processes, whose output is fed into a subsequent design activity. An original feature of the method is the use of a hypermedia *design taxonomy* (briefly explained later) to categorize

requirements and to facilitate the organization of the design activity [3].

As primary innovation, AWARE+ extends its predecessor model by introducing the concepts of, and the relationships among, *brand*, *brand values*, *communication goals, target needs,* and *channel.* Figure 6 conceptualizes the key elements of the AWARE+ meta-model in a goal-graph fashion. Agile matrixes and tables can also be used (as the ones illustrated in Section 2) to facilitate the use of the concepts in complex projects, especially to support elicitation and brainstorming. Figure 6 and the following discussion focus on the aspects of the new model that most emphasize the specific contribution of this paper (and on few elements of the previous model needed to understand the overall approach).

We acknowledge the existence of additional relationships and constraints among the various elements, which have been purposefully omitted.
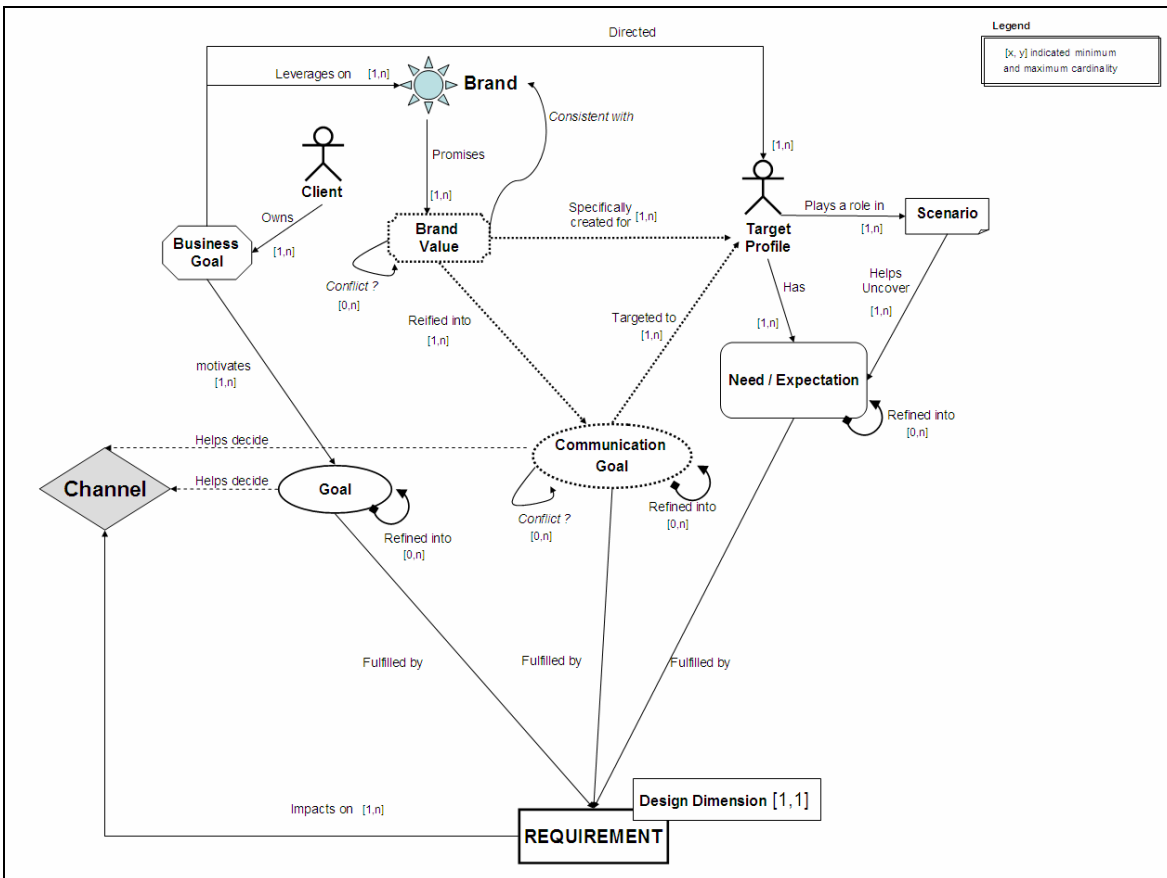

Figure 6. AWARE+: Integrating brand issues and communication goals in AWARE

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Client's goals analysis starts from the consideration of high level *business goals*, which are directly related to his/her strategic vision or to the vision of his/her company/institution/holding (the latter being outside the AWARE+ scope). By their own nature, business goals are targeted to the market, and therefore *are directed to* specific *target profiles*.

Business goals *leverage on brand,* whose definition reflects the identity of the company or institution in view of the achievement of one or more business goals for given targets. In fact, it is likely that a market repositioning or a change of business goals will reflect into a change in the brand definition.

The brand is condensed into a set of *brand values*. They capture the brand *promise,* i.e., the expected positive feelings or emotions that the brand should evoke in the target's mind (see again Table 1 for case study examples). Brand values are *reified into* more articulate, rational and emotional messages that must be communicated, thus shaping the *communication goals* (see Table 2). As the brand values are targeted to specific profiles, so communication goals are intended to convey specific messages to specific people.

As other goals, also communication goals are then progressively elaborated into subgoals to inform the requirements for the multimedia interactive artifacts to develop. As in AWARE, requirements are classified according to a *hypermedia design taxonomy*, that define the *design "dimensions"* on which the communication goals have an impact (see Table 3). These design dimensions reflect a conventional classification of design features as defined in most existing web design models [5]:

- *Content requirements* indicate core information elements to include in the application. This category of requirements, in the light of the communication goals identified according to the brand values, indicate the "strategic" content which should have a communication impact on the user. Therefore, unlike content necessary to support operational tasks (elaborated through scenarios, such as: finding hotel information), and more "standard" content deriving from other, institutional goals (e.g. presenting the Ministry), content requirements descending from communication goals are based on specific brand assets and thus capture the distinctive features of the communication of the institution, in order to appeal to a specific target audience (e.g. content emphasizing the common roots of Western civilization).

- *Information architecture requirements* give indications on the overall structure of the content (such as access criteria, navigation paths, content highlights, etc.).

- *Interaction and navigation requirements* specify navigation patterns, interaction paradigms or communication formats (such as "guided tour", "storytelling").

- *Layout requirements* refer to the look&feel, visual properties of the interface, e.g., chromatic style, logo design, elements allocation on the screen, visual priority and affordance, etc.

- *Operations & services* requirements correspond to conventional functional requirements on the operations performed by the application and the operational services made available to the user.

AWARE+ also introduces the idea that goals and requirements should be considered as to their *relevance* to the *delivery channel* (e.g., stationary PC, PDA, mobile phone, iPOD, car navigator, onsite kiosk, interactive TV, etc.). In our case study discussion, we have focused only on the elaboration of requirements for ICT-based channels. However, the analysis of brand values, communication goals, and business goals can also inform the design of messages running on other tangible or intangible communication channels (e.g., paper or TV advertising, flyers, events) that are the "traditional" scope of brand communication.

By considering a wide spectrum of channels, goals, requirements, and design dimensions, AWARE+ provides a unifying conceptual framework for brainstorming, analysis, collaboration, and consensus building among all actors and stakeholders involved in the design process of a branded experience: clients, marketing managers, graphic designers, communication experts, interface designers, information designers, service designers.

As we have seen in the case study, the elaboration of business goals, brand values, and communication goals may bring to elicit *conflicting* elements. Differently from other approaches (e.g., I* [19] and Kaos [7]), where conflicts must be eventually resolved, we suggest that conflicts are something to be lived with, at some degree. Business goals, brand values, and communication goals should not be regarded in isolation, but considered *as to their relevance to a specific target profile*. Conflicts may co-exist within a given set of "homogeneous" elements (either business goals, or brand values, or communication goals) as far as these elements do *not* address the *same* target. This kind of conflicts can be solved at design level: for example, creating different solutions for different channels, each one addressing different target profiles. Conflicts among heterogeneous elements, e.g., between business goals and values or communication goals, may exist because this is "part of the game" in a profit-oriented context, as far as this mismatch does

not emerge from the strategic messages and reach a target. Thus conflicts of this kind can not only be left unsolved, but also inform the elaboration of communication goals.

4. Related Work and Discussion

Goal-based RE techniques offer tools to identify and analyze high-level stakeholders' (not just users) goals in the very early stage of the requirements management process. Some of these methods (e.g., Kaos [7] and i* [19]) pinpoint the role strategic and organizational knowledge in the early phase of requirements analysis, and include business goals among the issues to be addressed as part of a wider organizational analysis. From a syntactic view point, we may have modeled brand values and communication goals in terms of these models' primitives, e.g., i* soft goals. Still, our approach acknowledges more explicitly a central role to branding and communication issues within the RE process, and introduces these concepts as first order citizens in the modeling framework.

Branding has a long history in disciplines traditionally outside computer science, such as marketing, corporate communication and industrial design. With the advent the economy of the *experience* [16][13], and the consequence interest for *experience design*, brand issues have progressively played a key role in the design of successful ICT *devices* and *platforms* [8][10][17]. More recently, branding has become relevant also for some *interactive applications*, particularly for e-commerce, where the term "brandspace" [6] has been coined. The HCI community has pinpointed that all the key components of a virtual and a physical *user interface* are *branded* [12], and has discussed the relationships between branding, usability, and utility [17][15], supporting the claim that an improved usability is an important driver for consolidating the brand image. However, to our knowledge, little attention has been paid so far to integrating branding requirements in the overall requirements engineering picture.

At the light of the above, this paper provides a novel contribution in several respects. It proposes the notion of brand as an illuminating factor for requirement elicitation, and introduces the concept of "brand values" as specific "expected impacts" for identified segments of the user community. Brand values are not just a refinement of "brand"; they take into account elements like business goals, business opportunities, marketing strategies, etc. Their elaboration entails an interdisciplinary effort, bringing together actors with deep understanding of the institutional vision, of people, cultural diversity and markets, as well as with knowledge and skills in new media technologies. Our approach also highlights the relevance of "communication goals" as "articulated" messages" that must be addressed to specific target profiles and must be reified through proper design solutions. Again, communication goals are not just a refinement of higher level concepts (e.g., brand values), but rather an interpretation of them, taking into account other multiple factors, such as facts and emotional elements of the brand that can be leverage upon, as well as project constraints (e.g. content available and resources), or business goals.

Although we do not introduce any new category of requirements, we put them in a different light. In particular, we highlight "content" requirements, which derived from three main concerns:

- *functionality*: content needed to support operational tasks to be accomplished (e.g., practical tourist information, such as embassy contacts).
- *information*: content that institutionally must be provided (e.g., the mission of the Ministry, the geography of Syria).
- *communication goals*, i.e. the overall messages that we would like to send to the users (of the proper segment)

The relationship of communication goals with other kinds of goals and their impact on multiple design dimensions of a content intensive multimedia application represent quite a new research field. For marketing and communication experts, the relevance of branding and communication goals is obvious. Still, in the practice, these elements are refined and elaborated from an emotional and psychological perspective, and their role is typically relegated as informing the design of the "surface", the "look&feel&touch" of an interactive product, e.g., its visual and tangible characteristics such as colours, symbols, logos, fonts, mottos, shapes, packaging, In constrast, we propose the role of branding issues and communication goals as far more pervasive and profound, and affecting design decisions at a deeper level.

What is interesting in considering communication goals is that they catch the distinctive elements of the company/institution with respect to the market. Whereas content deriving from "functionality" and "information" requirements is quite standard for most applications in a domain (e.g. the institutional section might be more or less identical in many Ministry of Tourism websites), content requirements (and design decisions) deriving from communication goals can make the difference. This is what really differentiates the communication of a given institution/company, being this communication anchored to a specific brand.

Introducing this approach, we are considering a picture potentially larger than the traditional RE focus on ICT applications. As discussed in the case study, once the communication goals and the corresponding segments of the target are identified, the choice of the "best" channel needs to be done. In this respect, we have also learned that a channel could be the Web, or pod-casting, but it could also be traditional communication media, such as leaflet, newspapers, magazines, posters, radio, TV, etc. This vision puts technological artefacts in a broader communication context, and assigns to requirements engineering a wider responsibility, which potentially includes the strategic definition of *all* communication actions of a company and institution, with and without technological support.

Finally, the model here proposed is under validation in other concurrent real projects (e.g. the coordinated redesign of the 50 websites of the University of Lugano) where it is used for early negotiation of brand definition with the stakeholders, as well as for quality control ex-post, i.e. whether the content produced according to the communication goals has the expected impact on the user.

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