

Motivating and Involving Users through Gamification: A Proposal

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Abstract. This contribution addresses the problem of motivating users to collaboratively enrich a digital collection of multimedia items. The first part of the paper provides some insight on the motivations which drive people to actively participate to social networks. It pays particular attention to the narcissistic act of exhibitionism aimed at social recognition. It then briefly reviews the state of the art on gamification, which plays an important role in improving user involvement. In the final part, it introduces a project that aims at enriching a digital collection on fashion, by letting the users play a question/answer game. It also includes a brief illustration of the expected results and the planned methods to gather data.

1 Introduction

Self assertion is a life-long process that does not seem to end with adulthood and maturity. Emulation and imitation are facets of this process and are related to the concept of *meme*, introduced by Richard Dawkins in his 1976 book "The Selfish Gene" as: the minimal unit of information, which allows cultural transmission from generation to generation through imitation. Imitation corresponds to an information transfer from the external environment to our brain and, in the special case of emulation of a cultural model, satisfies a number of additional needs: looking more self-confident, being accepted by the group of peers, elaborating a personal style and in general affirming and reproducing identity models. Facebook seems to answer to these needs, giving a spotlight to anyone who was hiding in the anonymous backyards of existence.

The needs for asserting our identity and for consolidating our status through consensus are shared by real and digital life. For instance, just before buying a new dress or posting a new comment on Facebook we probably ask ourselves the same questions: "What the others will think about me?" and "The things I am going to buy/say are in line with my reputation?". Although this parallelism can be extended to most of the real life activities, *consumption* plays a central role in the way our identity is put under stress. As Marina Bianchi noted in her preface to Scitovsky [24]: consumption is a complex task, which encompasses the way of life, the time-use and energy, investment in knowledge and information, ability to relate with the others and meaning of one's identity. In the case of fashion consumption, people express a number of specific needs: affirmation of identity, desire of emulation and belonging, demonstration of competences and, more in general, public consensus. Similar needs

motivate the participation to a social network, with the difference that the network represents both the ends and the means, depending whether it is used as a channel to transmit information or an information source.

The prototype system presented in this paper starts from these premises and tries to merge them in a social network about fashion using a gamified question and answer approach. Before introducing the system, the paper presents a theoretical background on identification, identity and consensus with the aim of showing that these general concepts can motivate other projects in which users willingly share their knowledge in order to enrich a multimedia collection. Although the particular project is about fashion, most of the idea can be applied to any other thematic collection, such as the ones hosted by digital libraries.

2 Identification and Projection

In its earliest days, when the Internet offered a small range of file transfer and communication services that were used by a relatively homogeneous population of early adopters, human-computer interaction researchers tended to treat both services and users monolithically. They implicitly assumed that all Internet use had similar effects on most users [13,14]. However as Internet services became richer and users more heterogeneous, researchers began to ask whether different types of Internet use, (e.g., communication with family and friends, meeting new people, and finding information) had different effects on those varying in demographics and social resources [2,17]. Social network sites and research on their impact have reached a similar inflection point. Social network sites are designed to connect people with friends, family, and other strong ties, as well as to efficiently keep in touch with a larger set of acquaintances and new ties. Therefore, they have strong potential to influence users' social capital and the psychological well-being that often flows from social capital [5,7].

Social capital corresponds to the actual or potential resources which are linked to a durable network of more or less institutionalized relationships of mutual acquaintance or recognition [3]. It is the benefit derived from one's position in a social network, the number and type of the ties one maintains, and the resources those ties themselves possess [27]. Investment in social capital seems to be one of the drives of our actions, both in the real and virtual life [19]. A direct consequence is the birth of an inflated social self, which tries to expand to the new territory of social networks [8].

This paradigm shift represented a huge opportunity for the ones who understood that consumption, of goods and culture, does not stop at the financial level. Consumption is an act of identity, which may express either genuineness or forgery but cannot be limited to a monetary transaction [8].

2.1 Identity

The connection between brand and consumer is strengthened by the psychological and social meanings that the consumer ascribes to the brand. We are involved in a

relationship with the vinyl, the toothpaste, the scarf we buy [12]. Brands build our identity rather than produce our goods.

The transformation from simple factory name to identity builder has been described in [12]. In XIX Century, the first large-scale advertising campaigns in US aimed at selling goods, not ideals. Marketing just had to inform consumers about the benefits they could gain through purchases. Brand names were reported on goods, but they had little influence on consumers' choices. With the Ford factory and mass production of basically identical goods, advertising needed to transform from a source of information into a means of persuasion, promotion and valorization. Brand identity played a central role in this shift [12] and consumption evolved from a way to express richness and success to a way to express (true or false) identity [8].

2.3 Group Identity and Consensus

Two additional concepts are required to better define the concept of belonging: role and identification. Roles regulate the interactions among individuals [19] and provide rules for structures, encounters and collisions [22]. They are the scripts, followed by all individuals, made of social expectations, actions, manners based on our position in a society. Depending on the meaning we give to our behavior as consumers, we play different roles, which can confirm or negate the representation of ourselves that we are giving. Roles change through time. For instance, expressions like "being fashionable" that were popular some years ago have been replaced by expressions like "being a fashion addicted", and the same idea of "fashion" is replaced for the younger generation with the idea of "fad" (i.e. a short-lived craze for a particular look) [8]. In each role they play, consumers are not alone. From being confined inside the family boundaries, consumption and sharing is becoming a collective behavior [8].

In the Web 2.0 era, consumption is increasingly detached from an actual purchase and more and more associated with identity aspects, for instance belonging to a brand community. This identification with a group, based on sharing just for the pleasure of it with no hidden agenda, is one major aspect of new digital media also because digital objects (i.e. recordings in a music digital library) can be replicated a infinite number of times without losing quality. Moreover, sharing with the group both what we have and what we know is becoming a pleasure without the expectation of reciprocity, an openness based on selfless approach [8]. This sense of belonging, which is shared also by online communities and has been called emotion community, is balanced by an opposite drive: consumption and participation as a narcissistic act of exhibitionism in order to be socially recognized [8].

Social consensus can be obtained in two ways. First, by promoting our *image* through the construction of a forged identity, based on shallow and external aspects, that can be quickly created with advertising actions [10]. Second, by promoting our reputation through the construction of an authentic identity; reputation takes time to be built although it can be quickly lost [11] and it is based on behavior and actions [9]. The creation of consensus in the fashion field has been compared to a game, where players cooperate and compete with the goal of promoting their image and increase their reputation depending on their consumption, their style, their ability to forecast tendencies and so on [18].

3 Users Engagement

Game dynamics are shared by other fields, obviously sports but also social networks. It seems that videogames trained us to wait for rewards for each action we do, to look for even illogical achievements. According to [26]: "*playing a game is the voluntary attempt to overcome unnecessary obstacles*".

The starting point is that reality is trivial in its linearity, while games challenge us to tackle a number of goals in a parallel world. Games can be classified depending on the number of players (from single player to massive multiplayer), on the required hardware (from bats and balls to computers and portable devices), on the environment (from outdoor to game rooms and personal rooms) and on the required time (from few minutes for each play to several hours to complete a complex game).

3.1 Gamification

Gamification is defined as *the use of game elements and game design technique in non-game contexts* [29]. Its goal is to transform boring and repetitive activities in something more fun and engaging as games usually are. Points, badges and leaderboards are part of the process, but fun and engagement require the design of a coherent game experience [21]. Gamification is becoming very popular. It is envisaged that, only in the US, the investment in gamification systems will exceed 2.5 billion dollars [15] with an increasing interest also by Italian marketing [1]. The number of games increases as well. According to [25] half of the European population between 16 and 29 and about one third of the population between 30 and 49 had played a videogame at least once in the previous six months.

Consumption has been promoted through gamification since many years through *trans-toying* [23], which the transformation of daily use products in puppets, animals, board games [6]. Another technique is *advergaming*, for instance the "3D Vince Carter" game launched by Nike, where real games are used to promote visits to the brand's website or to make the public more product aware [4]. Going towards these directions, fashion catalogues have been enriched by coloring books, paper figures to cut out, QR codes linked to interactive web sites. Moreover, products have been created from videogames characters and, at the same time, testimonials and logos become characters of new videogames [16].

4 A Social Network for Fashion

In the light of the above mentioned considerations, I decided to venture into the design and development of a social platform about fashion with the collaboration of a computer engineer and a database expert. The project is still in an early development stage and it is based on the idea to build a platform comprising elements typical of social games, social networks, online communities and question/answer sites. The aim of the project is to spread the knowledge about celebrities' outfits to a wide public in a simple, intuitive and entertaining way. The scope is also to provide the users with a powerful tool to find and share their knowledge about valid cheap alternatives to the

original outfits. The home page of the social network, also called *cover page*, is shown in Figure 1.

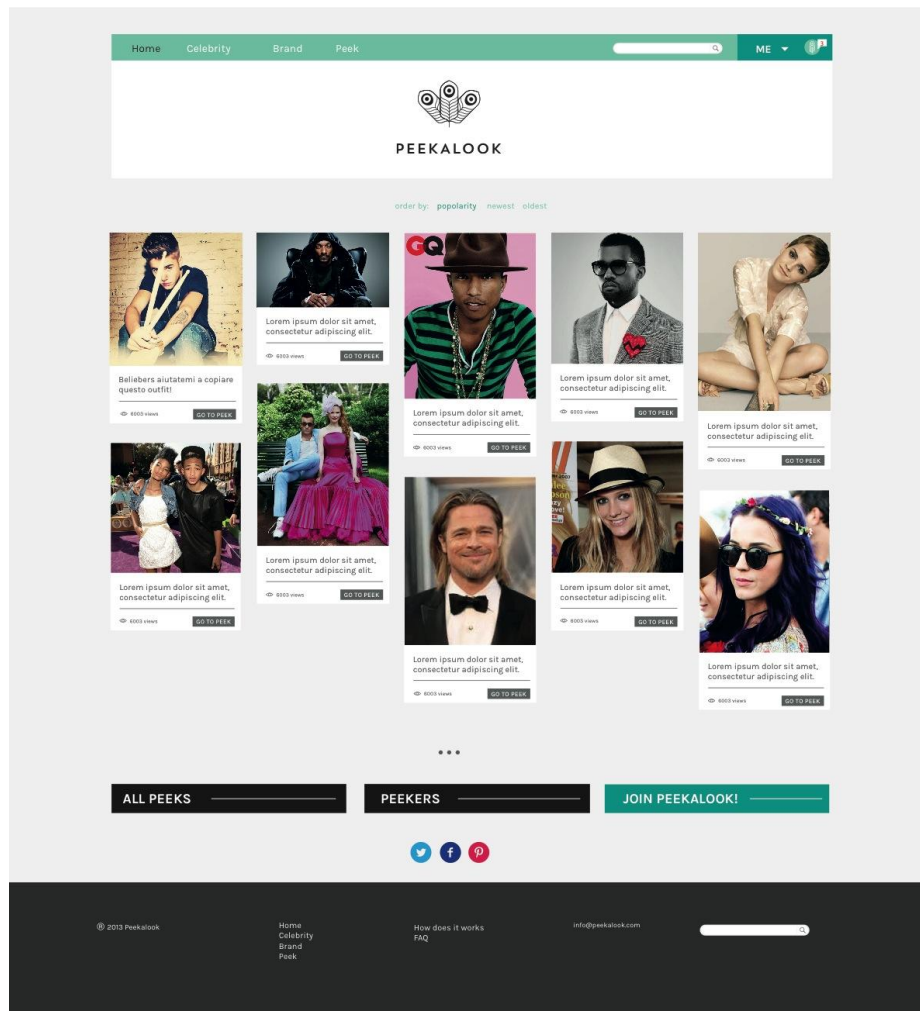


Figure 1: Cover page of the developed social network web site.

The website is composed of different kinds of pages, the most important being the “celebrity page” and the “brand page” (the latter shown in Figure 2). Both pages can be created and maintained directly by users and are composed of:

- A picture depicting the celebrity or the logo of the brand.
- A brief description or biography.
- The most popular/recent threads of discussion about the brand or celebrity.
- Links to similar or related brands and celebrities.

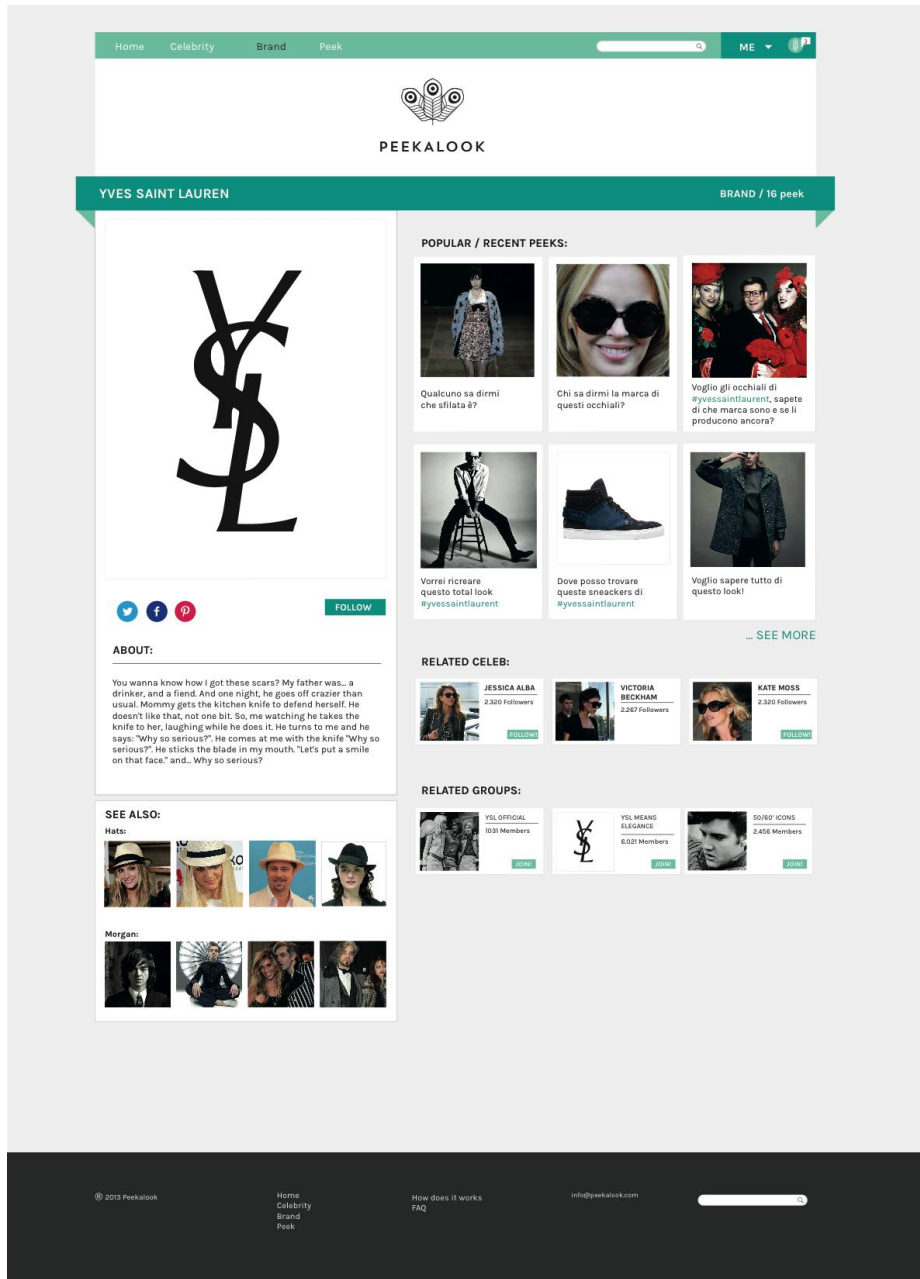


Figure 2: Page dedicated to a brand.

The main kind of page in the website is however the “peek page” (Figure 3), which is the name the project uses to address the discussion page.

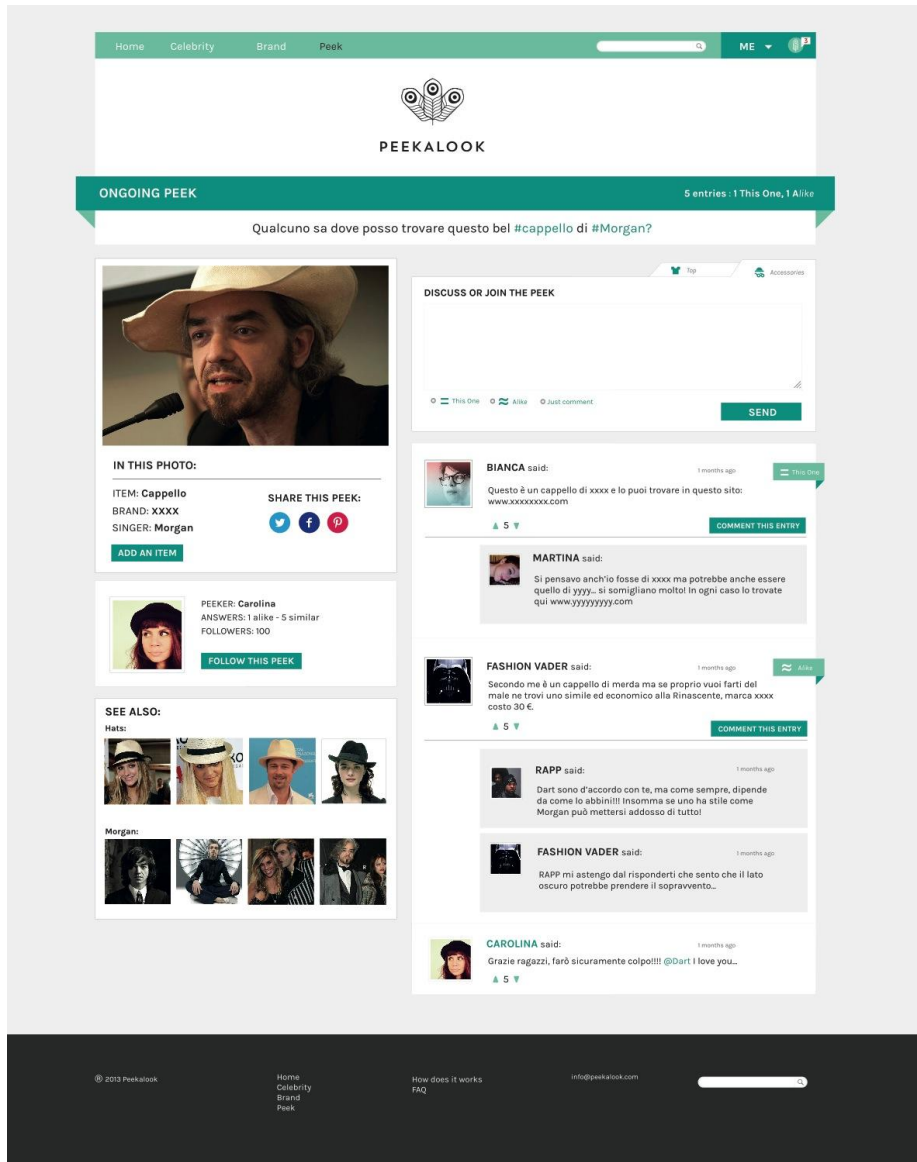


Figure 3: Example of a peek page.

To create a new thread (and a new peek) the user has to upload a photo of a celebrity and then ask to the community information about the outfit of said celebrity. This is where the social game begins, with users trying to give the best answers. Users can classify their answers in one of these three categories:

- **This one:** the answer links to the exact brand which produced the garment.

- **Alike:** the answer links to a brand producing a similar and often cheaper alternative to the exact one.
- **Just Comment:** the answer was made just to participate to a discussion.

By giving either a “this one” or an “alike” answer, users enter a social game which challenges them to prove their knowledge about brands and fashion in general and helps increasing the enjoyment of the users experience. Voting is the second part of the game, and every answer can be voted by other users who choose the best or most pertinent one, while casting down the incorrect information. The voting process has two scopes: on the one hand, it elects and rewards the users who gave the best answers, extending their engagement; on the other hand, it validates the answers so that only useful and correct knowledge emerges.

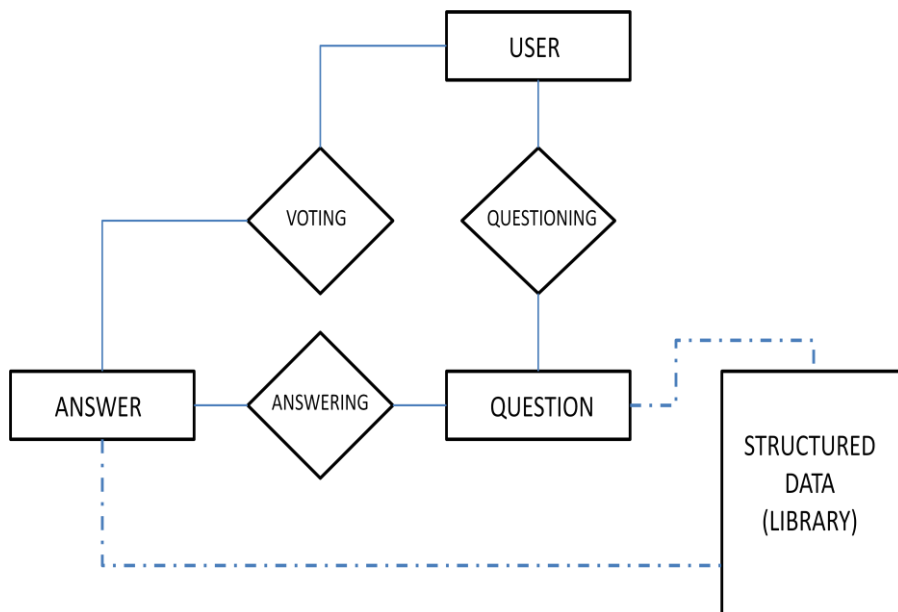


Figure 4: Excerpt of the E-R schema for the underline database.

4.1 Exporting the experience

The project at its core is essentially based on its own digital library. This library, as we already discussed earlier, is composed by two main entities: celebrity and brand. Much like what happens in other structured libraries, these two entities are filled in by the authors. What is then the contribution users can give to the system? The main problem with most libraries is that, while they are fully structured, they still miss some forms of refined cataloguing or unconventional links between the entries they contain. This occurs because the amount of work needed to make such cataloguing is simply unbearable for the small communities who create and manage the data. So

would it be possible to have a big number of users do the job for us? The internal structure of the project is specifically conceived to allow users to discuss similarities between items of the database and create links that can be used to get better analysis of the correlations between data.

When we strip the structure of the project, which is depicted in Figure 4, from its peculiar nomenclature we can see that it can be applied to any similar project like libraries of music, books, documents. Users ask questions about entries of the library and get answers from other users who create associations with other entries based on similarities or other appropriate criteria. The answers are then reviewed through votes casted by the community. It is even possible to consider the opportunity to allow the best users, emerging from the voting scheme, to insert new items in the collection. This entire process is enveloped in a gamified frame which involves the users and encourages them to actively participate in the cataloguing process. This is beneficial for the library in two different ways: it distributes the workload of the cataloguing amongst the entire community and it provides the analysts with genuine and often unbiased information.

4.2 Expected Results and Evaluation Methods

The presented project is still in a prototypical phase and for this reason there is no available data yet to analyze. However successful examples of the application of gamification and the feedback gathered from a small selected base of users who had a brief experience with the prototype suggest that the proposed idea can be expected to produce significant results.

1. To improve user engagement: by implementing an achievement and reward system we appeal to the need to be socially recognized by exhibiting one's competence in a given field. This should both increase user engagement and enjoyment and motivate them to participate in the cataloguing process even without monetary payment.
2. To refine and expand the extent of the current forms of cataloguing: we expect to be able to channel the knowledge users have to obtain a deeper, wider and more refined cataloguing of the data. Users may also provide some unconventional cataloguing criteria, developing new interesting links between items included in our libraries. This would especially apply to cultural fields like music, fashion, films etc.

To evaluate in an empirical way the actual results we plan to use two different approaches. On one side we will be analyzing statistical data come directly from the portal and the database. This will give us a quantitative measurement of the number of users who actively participate in the cataloguing process and the number of produced classifications. On the other side we will administer questionnaires to evaluate the user engagement and enjoyment, gathering their feedback in order to compare it to non gamified systems.

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