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## CHECK-IN EVERYWHERE

*Places, People, Narrations, Games*



In this work we will analyze a corpus of products that are first of all hard to describe. To do so, we will start from the idea of *magic circle*, an extremely relevant concept among game theorists, and from all those location-based and pervasive practices that these objects generate. Each one of these notions is borrowed from different currents of game studies and media studies and, together, they will be used to better identify our case studies. After setting-up this theoretical introduction, we will proceed presenting three different virtual layers – the *game layer*, the *social layer* and the *narrative layer* – from which we will build a model to test four case studies.

*SCVNGR*, *Foursquare* and *Broadcastr* are mobile applications that, despite their similar appearances involving territorial exploration and user generated contents (texts, photos, audio recording), differ in the ways their users deal with them. The fourth case, *Whai Whai* is instead both a guidebook and a mobile application by which it is possible to discover the secrets of a city; a rather peculiar interactive guide capable of pushing and motivating its reader to explore the surrounding space.

### World Exploration and Location Tracking

What our case studies clearly have in common is their bond with the user's displacement in the real world. In the case of *Foursquare* and *SCVNGR*, the user's movements are tracked through GPS [Global Positioning System] technologies; in *Broadcastr* location tracking is optional, while *Whai Whai* does not employ a positioning system. We will refer to those objects with the broad term of location-based applications, although some of them do not comply with the definition proposed in 2001 by Virrantaus *et al.*: «LBSs [Location-Based Services] are services accessible with mobile devices through the mobile network and utilizing the ability to make use of the location of the terminals»<sup>1</sup>. This definition refers mostly to satellite

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<sup>1</sup> Virrantaus, K. et al., 2002. *Developing GIS-supported Location-Based Services*. (Updated 2 December 2002) Available at: <http://www.cs.jyu.fi/ai/papers/WGIS-01.pdf> [Accessed 15 September 2011].

tracking, but in this context we will use it in a broader sense, referring to products that maintain a crucial bond with the geographic position of their user. In short, with location-based we intend both the automatic localization of the device that is running the application and/or the voluntary movements of the user that follows the spatial indications of the application.

Some of our case studies share common properties with other products based on GPS tracking, such as interactive maps developed for mobile devices or augmented reality applications (e.g. *Wikitude*<sup>2</sup>). Nevertheless, we decided to focus our research on location-based applications that retain a distinct ludic component or can act as platforms for playful practices. In our paper we will explore the interactions between location tracking and games analyzing both the design and the use of those objects.

### **Breaking the Magic Circle**

In arguing that our four case studies retain a ludic or playful component, we need to confront the classic models of game studies. In defining the nature of games, most scholars have resorted to space-related metaphors. Notably, Johan Huizinga, referred to the space of play and games as a magic circle. In 1938, Huizinga described it as it follows:

All play moves and has its being within a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course. Just as there is no formal difference between play and ritual, so the 'consecrated spot' cannot be formally distinguished from the play-ground. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc, are all in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart<sup>3</sup>.

From Huizinga's point of view, the magic circle delimits the real world from *ad hoc*, non-permanent fictional worlds that are created to play. These worlds exist within a circle, a "consecrated spot" – not unlike that of a ritual – that delimits spatially and temporally the permanence of the make-believe world of a game. Following Huizinga's path, Goffman claims that games are capable of creating «a locally realized world of roles and events»<sup>4</sup>, while for French sociologist Roger Caillois, games imply an activity that is «séparé circonscrites dans le limites d'espace et de temps précises et fixées à l'avance»<sup>5</sup>. For most game and play theorists then, games are inscribed in a space (physical or metaphorical) that remarks their fundamental difference from the real world and from everyday life. The objects that we chose to analyze in our

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<sup>2</sup> *Wikitude* is an augmented reality mobile application based on GPS tracking that allows users to identify points of interest in the real world using their phone's camera.

<sup>3</sup> Huizinga, J., 1955. *Homo Ludens: A Study of the Play-Element in Culture*. Boston: The Beacon Press, p. 10.

<sup>4</sup> Goffman, E., 1961. *Encounters. Two studies in the sociology of interaction*. Basingstoke: MacMillan, p. 31.

<sup>5</sup> Caillois, R., 1991. *Les jeux et les hommes: la masque et le vertige*. 4th ed. Paris: Gallimard, p. 43.

research seem to conflict with these theoretical stances. Firstly, location-based playful experiences do not take place inside a physical *magic circle*, nor inside an arena designed for such activities. Their very existence depends on using the real world as a potential playground, inevitably sharing it with non-playing subjects. Secondly, while institutionalized, rule-based games require the player to comply with specific rules for the entire time of the match, location-based products offer a less restrictive experience. The ludic component of applications such as *Foursquare* is mingled with and ostensibly depends on banal routines (shopping, driving, eating in a restaurant), while the membrane that separates play and real life remains permeable. According to game designers Katie Salen and Eric Zimmerman, while games are in the most cases formal, defined, rule-based entities, the act of playing remains inevitably fuzzy:

The boundary between the act of playing with the doll and not playing with the doll is fuzzy and permeable. Within this scenario, we can identify concrete play behaviors, such as making the doll move like a puppet. But there are just as many ambiguous behaviors, which might or not be play, such as idly kneading its head while watching TV. There may be a frame between playing and not playing, but its boundaries are indistinct<sup>6</sup>.

Facing these difficulties in defining the limits of both the concept of play and of experience, we chose to analyze objects that use this vagueness to their own good.

In a research published in 2009, Markus Montola, Jaakko Stenros and Annika Waern described a corpus of playful practices having in common «one or more salient features that expand the contractual magic circle of play spatially, temporally, or socially»<sup>7</sup>. So we are talking about something capable of transcending the game limits or, more precisely, the very idea of magic circle, and that is exactly what we were looking for. Again, the three game scholars:

The contracts of pervasive games are different from the contracts of traditional, nonexpanded games. The magic circle is not an isolating barrier distinguishing the ludic from the ordinary, but a secret agreement marking some actions as separate from the ordinary world. While all human actions are real, those that happen within the contract of a game are given a special social meaning. In conclusion, we can see that there is a twofold dynamic between the playful and the ordinary that provides pervasive games a reason to exist: Both play and ordinary life can benefit from the blurring of the boundary<sup>8</sup>.

So, location-based ludic applications tend to “blur the boundaries” that separate playful and non-playful practices. As we will try to demonstrate, the products we have chosen generate pervasive practices exploiting this deep indeterminacy of the ludic concept.

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<sup>6</sup> Salen, K. & Zimmerman, E., 2004. *Rules of Play: Game Design Fundamentals*. Cambridge MA: MIT Press, p. 94.

<sup>7</sup> Montola, M., Stenros, J. & Waern, A., 2009. *Pervasive Games. Theory and Design*. Burlington: Morgan Kaufmann Publishers, p. 12.

<sup>8</sup> Montola, Stenros & Waern, 2009, p. 21.

### Three Virtual Levels – a model of analysis

In the following pages we take into consideration the various ways in which common spatial practices (taking a stroll, going to a restaurant, exploring a new city) have become the object of an intense mediation. We will analyze four examples of products that aim at interacting with the user's experience of space and movement in the real world in order to test a tripartite model of analysis.

The three layers (**Fig. 1**) considered in the analysis of these hybrid media products allowed us to map – at least partially – the territory of space related applications, placing them within a field of tension that informs both their core design and the user experience they intend to provide.

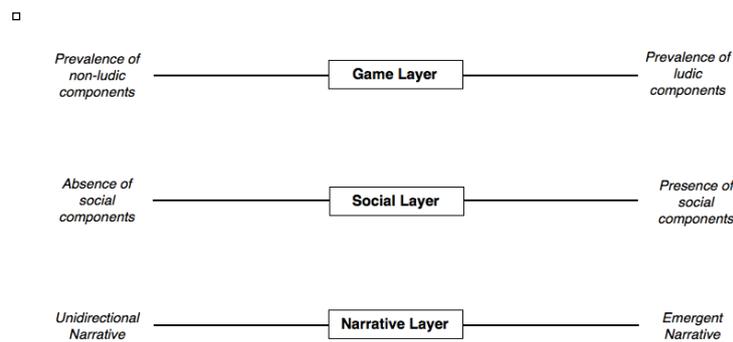


Figure 1. The model through which we have analyzed our case studies

In this perspective, the game layer refers to the presence of game-like features in the objects of our research, following the definition proposed by Salen and Zimmerman: «A *game* is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome»<sup>9</sup>. We will try then to identify if an artificial conflict, a set of rules and a quantifiable outcome are clearly recognizable in these applications. Moreover, when considering the concept of gamification<sup>10</sup> and its marketing oriented nature, it is clear that those game features are not there only to let the users play, but also to make them do something. The game layer is not only about fun, it is also about the use of game features in a *factive*<sup>11</sup> way with the purpose of exploiting the users' behaviors.

The social layer deals instead with the power of social networks and social relations to bond people together. The terms retains a certain structural and ontological complexity: for Christina Prell, «social

<sup>9</sup> Salen & Zimmerman, 2004, p. 80.

<sup>10</sup> Gamification is a broadened concept born in a marketing environment. As a strategy, Gamification involves game play mechanics for non-game applications in order to encourage people to use them. Bunchball, a service company that creates gamified web sites, claims: «Gamification improves user engagement, employees productivity and customer loyalty. With Nitro, Bunchball's gamification platform, you can directly influence behavior and optimize how users interact with your site». In Bunchball, 2011. *Homepage*. Available at: <http://bunchball.com/> [Accessed 20 October 2011]. For a less marketing oriented approach to gamification see McGonigal, J., 2011. *Reality is Broken*. London: Penguin Press HC.

<sup>11</sup> In his semiotics theory about modal verbs, Greimas defines the factitive modality as the object potential skill to communicate their directions of use (communicative function) generating precise actions sequences done by the users (operative function). Greimas, A. J., 1983. *Du sens*. 2. Paris: Éditions du Seuil.

networks [are] composed of a series of levels such as actors (e.g. individuals); relations connecting actors together (e.g. friendship); dyads (e.g. pairs of actors); triads (e.g. structure composed of three actors); sub-groups; and entire networks.»<sup>12</sup>. To dampen this complexity, we posit our analysis in the field of online social networks. Thus, talking about “social layer” means to consider the connections among actors (how people are related each other – the *social graph*) and actors and interests (as the result of online social activities: what people like, share, follow – the *interest graph*) typical of a mediated virtual networked ecosystem. Looking at the case studies, the analysis turns into an evaluation of all the social components that allow the users to share their spatial experience within their personal digital network (e.g. comments, friendship). It is not only about the presence of certain tools in those applications, but also about how important it is to use these tools to fully exploit their location-based ludic exploration (a crucial issue for *Foursquare*, conceived as a location-based social network *tout court* instead of a simple mobile application).

The narrative layer aims at defining how deeply integrated in the application a narrative component is, a matter that seems to be recurrent in our case studies. Although the products we have analyzed all show some sort of tension towards narrative, in our research we often found ourselves questioning the status and structure of narration within location-based applications. On the one hand, there is a tendency to encourage diverse styles of fruition (as in *Foursquare*). On the other hand, our understanding of these products as narrative objects is based on two different narrative models: that of an emerging or collaborative narrative, and that of a unidirectional, more “traditional” narrative. Though it is clear that most of the location-based ludic applications retain a narrative potential, the analysis of these peculiar media products within a narrative/narratological frame remains problematic.

In summary, our model is based on a tripartite analysis that aims at testing the ludic, social and narrative potential of the applications we chose as case studies. We argue that the objects of our research can be placed in different spots on the three *continua* that we propose, on the basis of both their design and the user experience they imply. This three-headed model may be helpful to identify different tendencies and biases in location-based applications.

### SCNVGR

In its official web site, *SCVNGR* is described as «a game about doing challenges at places»<sup>13</sup>. In July 2010 Seth Priebatsch, founder and CEO of the game opened his TED-Boston speech claiming that through his company products he was «fairly determined to try and build a game layer on top of the world»<sup>14</sup>. Pri-

<sup>12</sup> Prell, C., 2011. *Social Networks Analysis: History, Theory and Methodology*, Thousand Oaks: Sage, p. 3.

<sup>13</sup> Scvngr, 2011. *Homepage*. Available at: <http://www.scvngr.com/> [Accessed 10 October 2011].

<sup>14</sup> TED, 2010. *Seth Priebatsch: The Game Layer on Top of the World*. Available at [http://www.ted.com/talks/seth\\_priebatsch\\_the\\_game\\_layer\\_on\\_top\\_of\\_the\\_world.html](http://www.ted.com/talks/seth_priebatsch_the_game_layer_on_top_of_the_world.html) [Accessed 10 October 2011].

batsch's idea of game layer seems to adhere to the gamification practice of using ludic mechanics to “spice up” non-game products. So, ostensibly based on this idea of game layer, *SCVNGR* first of all calls itself a game in a traditional way. As we said before, this free mobile application provides various types of challenges through which its users can earn different prizes. The use of points, rewards, badges, levels and – in some cases – more complex game-like dynamics is highly present in our case studies. As we will see, the design of location-based products seems to suggest their adaptability to both “traditional” playing practices (as in the case of *Whai Whai*, which combines the dynamics of scavenger hunt and choose-your-own-adventure books) and more diffused, non-teleological lusory usages<sup>15</sup>. In this case, the ludic components are deeply integrated in the application: an artificial conflict defined by rules with a quantifiable outcome, as Salen and Zimmerman pointed out. Anyhow, even in a perfectly clear case like that of *SCVNGR*, some sort of fuzziness connotes the practices inspired by these applications. The “model user” of *SCVNGR* will typically be engaged in a pervasive ludic practice, alternating between goal-oriented behaviours (“do this in order to win a free pizza”) and more mundane tasks. Even so, *SCVNGR* can be put on the right side of the game layer section of our model.

Proceeding with the analysis, we can say that the challenges of *SCVNGR* are strictly linked with the physical space they are set in, as the application involves geo-localization as a pivotal aspect. The game claim is in fact: «Go places. Do challenges. Earn points»<sup>16</sup>. The challenges are created by users, by companies using them as marketing tools or by local shops, by institutions that seek to promote their work and initiatives, and can be put together by *treks* – themed sets of places with dedicated challenges in each one of them – that expand the game experience. Again, from the official website, the game is described as «part awesome location-based mobile game [and] part really powerful mobile gaming platform»<sup>17</sup>, stimulating the production of brand new experiences after paying some money to the game owners. The narrative part of the game then is deeply collaborative and emergent, putting again *SCVNGR* on the right side of the narrative layer section of our model.

The analysis of the social layer is a bit more complex. A key feature of the game is the fact that the rewards are both virtual (i.e. badges and points in the game) and real, often provided by the creators of the challenges. This duality reminds of the difference between intrinsic and extrinsic work rewards described by Mottaz<sup>18</sup>. The intrinsic rewards are connected with the worker's interest in the task. The extrinsic rewards instead, come from the employer. The commitment to work depends on the proximity of these rewards with the work values (in the form of desires and expectations) the worker gives to his job. It is

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<sup>15</sup> According to Bernard Suits, «To play a game is to attempt to achieve a specific state of affairs (prelusory goal), using only means permitted by rules (lusory means), where the rules prohibit use of more efficient in favour of less efficient means (constitutive rules), and where the rules are accepted just because they make possible such activity (lusory attitude)». Suits, B., 2005. *The Grasshopper: Games, Life, Utopia*. Peterborough: Broadview Press, pp. 54-55.

<sup>16</sup> SCVNGR, 2011. *Homepage*. Available at: <http://www.scvngr.com/> [Accessed 10 October 2011].

<sup>17</sup> SCVNGR, 2011. *Build on SCVNGR*. Available at: <http://www.scvngr.com/builder> [Accessed 10 October 2011].

<sup>18</sup> Mottaz, C. J., 1988. Determinants of Organizational Commitment. *Human Relations*, 41 (6), pp. 467-480.

clear that the values have high profile aims and, even if they are not quickly satisfied, they cannot influence the commitment too much. The rewards are instead pivotal and can deeply change the worker's involvement in the job. In *SCVNGR* we face a similar situation with intrinsic – in this case not only the player's interest in the game but also for the rewards found within the game world – and extrinsic rewards. The former are bound above all to a social desire for contact, status and reputation through virtual prizes (badges and points); the latter are instead the real prizes the users can get. So, it is in the intrinsic rewards, in the social status desire, in the confrontations between users and the bottom-up productions already mentioned, that the social component of the game emerges, putting *SCVNGR* on the right side also of the social layer section of our model.

### *Foursquare*

*Foursquare* is another mobile application that implies geolocation and urban exploration. In this case the focus is on the voluntary *check-ins* by which the users record their passages through places. Points and badges are the prizes for the users that visit the same place more often or that create and post more comments about them. *Foursquare* also produces a weekly chart – based on algorithm calculations invisible to users – that allows to elect the *mayor* of every place recorded. The approach is hereby competitive, since it's possible to lose a *mayorship* to another user.

Born with the aim to help discovering new places through the gamification scheme composed of check-ins and rewards, *Foursquare* gains its success also from its participatory nature and its two coexistent souls: the use of the product as a recording device (in the fashion of a travelogue, to share written notes on places, routes, episodes), and its use as a factitive device, similar to the use of a bottom-up guide book, that other users can read and follow, even without contributing themselves.

On the narrative level then, *Foursquare* changes depending on its use: as we have seen, as a travelogue it builds up a collaborative narrative, as a traditional guide book instead it remains bound to a unidirectional narration that its user choose to follow.

Also considering the social layer this differentiation remains strong. It's easy to underline that in this case narrative and social components are deeply linked. Where there is collaborative narration the social component is pivotal, in the form of shared comments, pictures, activities, tips and To-Dos that lead other users' experience. Even badges and mayorship competition, with a dynamic leader board that expresses the domain among a given network of friends, are vital social aspects of *Foursquare*. Another important feature, common to all social media, is the parasitical gathering of new users (as friends or competitors) from other major social networks through invitations. So, while in the first case the social aspects are vital to the *Foursquare* experience, where the narration is unidirectional this social layer is thinner and the application becomes a sort of bottom up guide book.

The game layer is a bit peculiar. *Foursquare* incorporates the indeterminacy of the ludic element within its very design. The user can seamlessly move between the playful and the useful: rewards, points and badges are intertwined with tips, suggestions and directions on what to do in a specific place. This duality prevents *Foursquare* from being placed univocally on the right side of the game layer axis. In fact, used as a guide book, *Foursquare* ludic components are very scarce, if not totally absent. That is not true in the travelogue use, in which the gamified system of check-ins and rewards creates a nearly ludic environment. We chose to put this last case in a faded position inside the game layer axis due to the lack of proper ludic challenges as the ones of *SCVNGR*.

### *Broadcastr*

*Broadcastr* was launched in december 2010 by Andy Hunter and Scott Lindenbaum, who described it as «an app for iPhone and Android that creates intimate and immersive experiences by unlocking pictures and audio relevant to where you are. It turns your smartphone into a multimedia guide to the world, and everyone can contribute»<sup>19</sup>. *Broadcastr* is based on the user's production of micro-narrations that are connected to places found in the real world. Typically, a *Broadcastr* user will record his story about a particular spot in a city through the voice recording plug-in included in the application. This audio fragment is then made available to all *Broadcastr* users who will be able to access it from their mobiles or home computers. Unlike *Foursquare* or *SCVNGR*, *Broadcastr* does not require its users to be physically present in a place in order to be able to browse and contribute to the audio library of the application. *Broadcastr* can be used from home and the audio files are all accessible at once from any location on the planet. Nevertheless, in their statement regarding *Broadcastr*, Hunter and Lindenbaum seem to encourage a geo-localized use of their application. In *Broadcastr*'s web site, the two founders write:

Go exploring with *Broadcastr* and you'll find memories, insights, and enriching information about eclectic and everyday places on every continent on Earth. Take a walk while stories about your surroundings stream automatically to your phone. A celebrity chef whispers in your ear as you stroll past his favorite restaurant; a renowned architect guides you through lower Manhattan; a comedian shares a hilarious personal anecdote at her favorite bar. Your movement through the world becomes your search query. Download the app. Take a walk<sup>20</sup>.

So, while it is possible to browse *Broadcastr* remotely, using it on a smartphone while actually moving in the city will create a playlist of audio fragments that will be played as the user reaches a certain spot. In this case we may find another example of divergent affordances or possible usages of a location-based application. *Broadcastr* can be used both as a random access tour guide from a home computer and as a

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<sup>19</sup> Broadcastr, 2011. *About*. Available at: <http://broadcastr.com/betablog/about/> [Accessed 20 October 2011].

<sup>20</sup> Broadcastr, 2011.

geo-related playlist creator supplying a flux of micro-narratives to a user traversing a real space. This makes the narrative component of *Broadcastr* strikingly similar to the one found in *Foursquare*. In both cases, an emergent location-related narration is built upon a multitude of user-created fragments, but the application allows a less enterprising user to resort to *Broadcastr's* flux as one would do with an audio guide.

Of the four case studies we focused on, *Broadcastr* is the only one that avoids showing clearly definable ludic features. The application does not include badges or rewards system and poses no explicit challenges. Nevertheless, the openness of the system makes it a potential platform for playful practices designed by the users. One could easily imagine a scavenger hunt game where hints are administered through audio fragments that are activated when players reach a certain spot.

*Broadcastr's* dynamics of social interaction seem less prominent than those present in *Foursquare* or *SCVNGR*. While it is possible to *follow* friends on *Broadcastr* (much like what happens on *Twitter*) and comment on their profiles, the discreteness and diversity of users' contributions, ranging from journal entries to field recordings, and the absence of any defined competitive structure (e.g. mayorships in *Foursquare*) make user interaction much looser and rarefied.

### *Whai Whai*

*Whai Whai* is a series of games challenging its players to explore the central areas of a small number of specific cities by asking them questions that can be answered only by actually going to a specific place to observe the details of a building or a landmark. Each *Whai Whai* game covers a specific city (Florence, Rome, Milan, Venice, etc.). It aims at making tourism more compelling and engaging by assigning to players a series of quests and riddles to be solved, by tracking their progress throughout the game and by adding a developing narrative unfolding across each session. *Whai Whai* can be played using an iPhone or a specific paper booklet and a common mobile phone and, obviously, each episode must be played in the corresponding city. Users progress through a narrative designed for a specific urban area by exploring it, by examining its landmarks and by answering the questions proposed by the game.

This application is much more closed than the previous examples. Differently from the other cases, *Whai Whai* games are designed from a single team that does not leave to common users the power to alter the game structure and to add new contents. While its branching structure is remarkably wide and makes it possible for subsequent games to be quite different from one another, it is still a finite experience that cannot be expanded.

Also, game-like elements are more evident in *Whai Whai*. Sessions have definite beginnings, developments and endings, there is a rudimentary score system and the game evaluates the players' progresses. While the system is not designed to allow users to *lose* a game – the story and the session will progress anyway even if the wrong answers are repeatedly given – it still signals whether players are performing in a good or bad way.

Due to its closed nature and the unidirectional (top-down) nature of both the ludic and narrative components, *Wbai Wbai* does not allow for social interactions outside those that takes place within the party of players involved in the same game.

## Conclusions

In this tripartite model (**Fig. 2**) we tried to analyze our four cases basing our assumptions on both their design and the practices they elicit. In two cases (*Foursquare* and *Broadcastr*) this approach led us to the decision of considering two different modes of engagement, that we defined as guide book and travelogue. For this reason, the two applications are not placed univocally on the *continua*, but are split into two distinct entities (b1 and b2 for *Foursquare*, d1 and d2 for *Broadcastr*) occupying different positions in the scheme. Our distinction is based on the discrete styles of usage that emerged from the analysis of the affordances of each application. It is important to remark the ideal and theoretical nature of the usages that we propose, since the actual user of *Foursquare* or *Broadcastr* is very likely to enact hybrid practices where no clear-cut distinction can be observed.

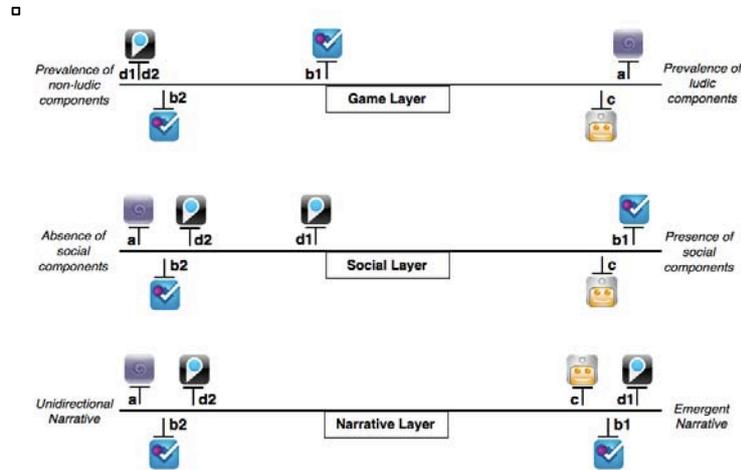
While the four applications that we decided to analyze seem to rely on common assumptions (turning everyday spatial practice into *something else*), our model shows the complex and varied nature of these products. *SCVNGR* and *Wbai Wbai* seem to take different approaches to the ludicization of urban exploration. *SCVNGR* is consistently featured on the right side of the model. This means that a strong social component and an emergent approach to narrative complement a clearly defined ludic orientation. Of our four specimens *SCVNGR* is the one that adopts the most pervasive approach, where playful practices are intertwined with social networking and contribute to the construction of a collaborative narration. On the other hand, *Wbai Wbai* relies on a consistent game apparatus with defined rules and goals but does not allow its players to access to their expanded network nor to engage in an activity of collaborative narrative construction. In this sense, *Wbai Wbai* can be seen as a ludicization of an older medium such as the guide book or, on the other hand, as a spatialization of hypertextual media such as a choose-your-own-adventures book.

*Foursquare* poses different problems since two distinct possible usages emerged from the analysis. If used as a user-generated guide book (case b2), the application is consistently featured on the left side of the scheme, where less interaction with the user occurs. In the case of what we defined the travelogue usage (case b1), *Foursquare* seems to mimic *SCVNGR*'s behaviour, since it features a strong social component and a predominantly collaborative narrative development. What stands out in this case is *Foursquare*'s lack of distinct ludic component. While *SCVNGR* and *Wbai Wbai* aim at creating a *gaming situation*<sup>21</sup>, where

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<sup>21</sup> Finnish researcher Markku Eskelinen defined the gaming situation as «a combination of ends, means, rules, equipment and manipulative actions». Eskelinen, M., 2001. The Gaming Situation, *Game Studies*, 1 (1). Available at <http://www.gamestudies.org/0101/eskelinen/> [Accessed 20 October 2011].

rules and goals can be observed, *Foursquare's* use of game-like features (rewards, points and rankings) does not offer proper challenges for the user<sup>22</sup>, but merely rewards trivial actions such as visiting a museum or dining in a restaurant. For this reason, on the game layer, *Foursquare* is placed in a hybrid position.



**Figure 2.** The complete model through which we have analyzed our case studies.

**LEGEND:** a – *WhaiWhai*; b1 – *Foursquare* (travelogue use); b2 – *Foursquare* (guide book use); c – *SCVNGR*; d1 – *Broadcastr* (travelogue use); d2 – *Broadcastr* (guide book use)

*Broadcastr* was mostly used as a sort of *contrast medium*, since no clear ludic components could be observed. Because of its scarcely factitive nature (it does not propose challenges nor explicitly elicits playful practices), *Broadcastr* stands out as a platform for different modes of expression. It is not surprising then, that it hosts a wide variety of contributions ranging from the autobiographical to the fictional. On the narrative continuum, *Broadcastr* replicates *Foursquare's* usage based distinction, since it can be used as a guide book, retaining unidirectional narrative dynamics, or as an audio travelogue. Also on the social layer *Broadcastr* reproduces *Foursquare's* features, but, as we have seen in the application's analysis, with less prominence of the social networking capabilities.

While our research work on ludic location-based applications is in its initial phase, our aim is to remark the importance of analyzing hybrid and pervasive media objects building heuristic models based both on the applications' features and on the experience they are designed to provide. At this time no final assumption can be made about the unifying traits of location-based mobile applications, but we argue that starting from what sets apart one case from the other may be a proficuous way of building a complex and multi-layered analysis.

<sup>22</sup> Practices as FAQs, walkthroughs and even cheating are also quite common among *Foursquare* users. It is easy to find web sites and online communities explaining how to unlock special badges or how to exploit the inconsistencies of the software to obtain special outcomes without physically being in the place requested (e.g. Royal Wedding Badge). Even if clearly inscribed in the area of unpredicted uses, all these cases contribute to posit *Foursquare* into a peculiar ludic frame.