Rio Hyperlocal: Social Media and Digital Landscape in the Process of Urban Redevelopment

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1. Introduction

1.1 Connected society and contemporary landscape

In the introduction of a seminal book on the interpretation of ordinary landscapes, Meinig (1979, p.6) teaches us that "every landscape is a code, and its study may be undertaken as a deciphering of meaning (...)". Landscapes are, therefore, cultural constructs which meanings are subject to different interpretations. With the upcoming of digital society and its new forms of social construction, further landscapes are being imagined, constructed and reinterpreted. It is important then to acknowledge these new landscape codes and our reactions to them.

More recently, Corner (1999) has dwelled on the concept of cultural landscapes, expanding its scope through the lens of landscape architecture. He argues that rather than simply materialize cultural values and meanings ascribed to it, landscape also plays an active role in shaping cultures. The idea of an active landscape can be decoded into the concept of productive digital space, informing and modifying our place experience.

Over the last ten or fifteen years, ubiquitous computing has been also mediating our experience of landscapes. Ways and speeds of accessing landscapes through a number of digital medias have opened up new opportunities of engagement between people and urban landscape and therefore urban planning and design (Foth et alli 2011). Sterling (2007) concept of hyperlocal, where geographical coordinates participates and are embedded in the generation of digital information, can be easily expanded to a scenario in which data will connect us to the city in a manner that will quickly be taken for granted once it appears and becomes widespread (Hudson-Smith, A. et alli. 2009).

The idea that city´s user no longer bound to experience passively the territory through which they live in have been empowered to inscribe their subjectivities to it (Greenfield and Shepard, 2007). At the same time, the ubiquitous availability and increasing prevalence of social media applications provide access to a rich stream of user-generated content (Rittenbruch et. alli 2012.). The spread of wireless access in public open spaces reinforces this practice, allowing Internet users to timely post and share information, energizing and activating the spaces more than ever before (Barlow, 2007). The roles played by digital space in the construction of landscapes bring an emerging field of contemporary landscape research that should be further explored.

As condensed in the diagram below (Figure 1), digital medias, specially social networking systems, turn local and planning information all the way around bounding to the citizens, in a different way from previous analog paths in which primary user´s interest was imperative. Now instant messages, images and videos timely feed users´ connected devices and enables to respond to them in the same speed. From this perception we can consider connected citizens potential active agents of landscape construction and transformation, starting from its digital correspondent.
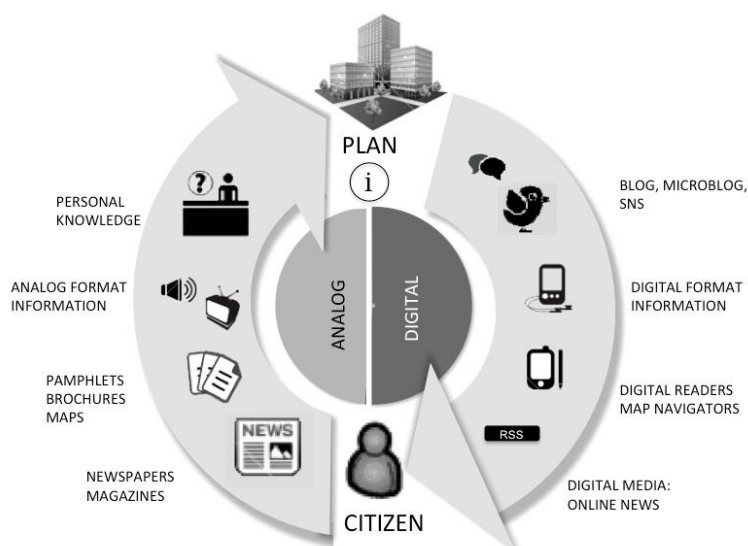
Figure 1: Contrast of analog and contemporary digital access to plans (source: author)

With this perspective, this paper stands in the field of interpretation of urban landscape as an active territory of transformations and its digital correspondent as an instrument to improve its dynamism. It aims to contribute to the discussion about opportunities in citizen's engagement in urban planning and design through the experiences of active digital space, through the lens of social media. It does not aim to define, classify or discuss social media itself, neither delineate levels of participation on it, as done before by many authors (Corburn, 2005; Mayfield, 2006 and Shirky, 2008). Rather, the paper looks at how information on landscape construction is disclosed and displayed to citizens, follows the reciprocity to that command in major social networks and sharing-service page, as well as tracks down quantitative data to estimate the broadness of audience reach. Moreover, the study briefly discusses the plan's visualization visibility through its graphical aspects, raising questions about the efficiency of some platforms to promote citizens´ awareness based on their online receptiveness.

Having as a case study Rio de Janeiro's recent portuary zone improvements, the Porto Maravilha redevelopment plan, this paper highlights the relationships among landscape transformation and the concepts of active digital space, hyperlocal, as well as digital landscape. The paper is organized in the following way: as following, in the second section the main guidelines of the plan and the transformation process of its reactivating landscape are introduced; next, the paper looks at its official and main information provider – the webpage www.portomaravilha.com.br – to focus on the social media presence on it, and opens up discussions on each one of them, contributing to the exemplification of the theory. The paper concludes advocating its potentiality on the contemporary vision of redevelopment plans and city planning.

1.2 Rio de Janeiro in the context of contemporary urban redevelopment plans

Rio de Janeiro City, with its 90km of seashore, had most of its central bay front area landfilled and its natural coast placed by straight quays, later occupied for port and industrial activities (see Cardoso *et alli* 1987). Historically very dynamic, the district turned the century in a sharp decaying process with over 1 million square meters of underutilized and degraded areas, empty warehouses and decrepit buildings.

The redevelopment plan entitled "Porto Maravilha" (Port Wonder) was launched in 2009 and construction works started in 2011. It covers a five million square meters area beside Rio´s main central business district (Figure 2). Among other objectives, the plan aims to recuperate the area, due to historical importance, as well as for its potential to boost again central

districts by increasing demand for residence and office buildings within the region, enhancing Rio´s competitiveness position in the global economy and creating a better social balance and sustainable urban environment (CDURP, 2009). Additionally, for the upcoming events (the city hosts the 2014 FIFA World Cup and the 2016 Olympic Games), the area may house a media center, the referee's dorms and cover part of the estimated city´s 8,000-hotel rooms deficit.

The master plan for the area redevelopment also includes: new traffic alternatives to improve accessibility; demolition of the Perimetral viaduct; upgrades to roads and tunnels; implementation of new light rail transit (LRT) lines and suspended cable car connecting the district to the city center, subway and suburban train stations; recuperation and reuse of the 18 warehouses along the 3,5km-long dock, regaining visibility to the bay, and new docks for ocean liners, preparing the city to handle the increasing influx of tourists (Figure 3). Built legislation and zoning law changes incentive future private commercial and housing development. Some of the anchor special projects already under construction include new museums, historic and patrimony recovery, besides some nearby interventions on one of the main local and city´s oldest slum.

A multiplying effect and benefit to the entire Rio downtown region is expected and the entire project is to be completed by 2016.
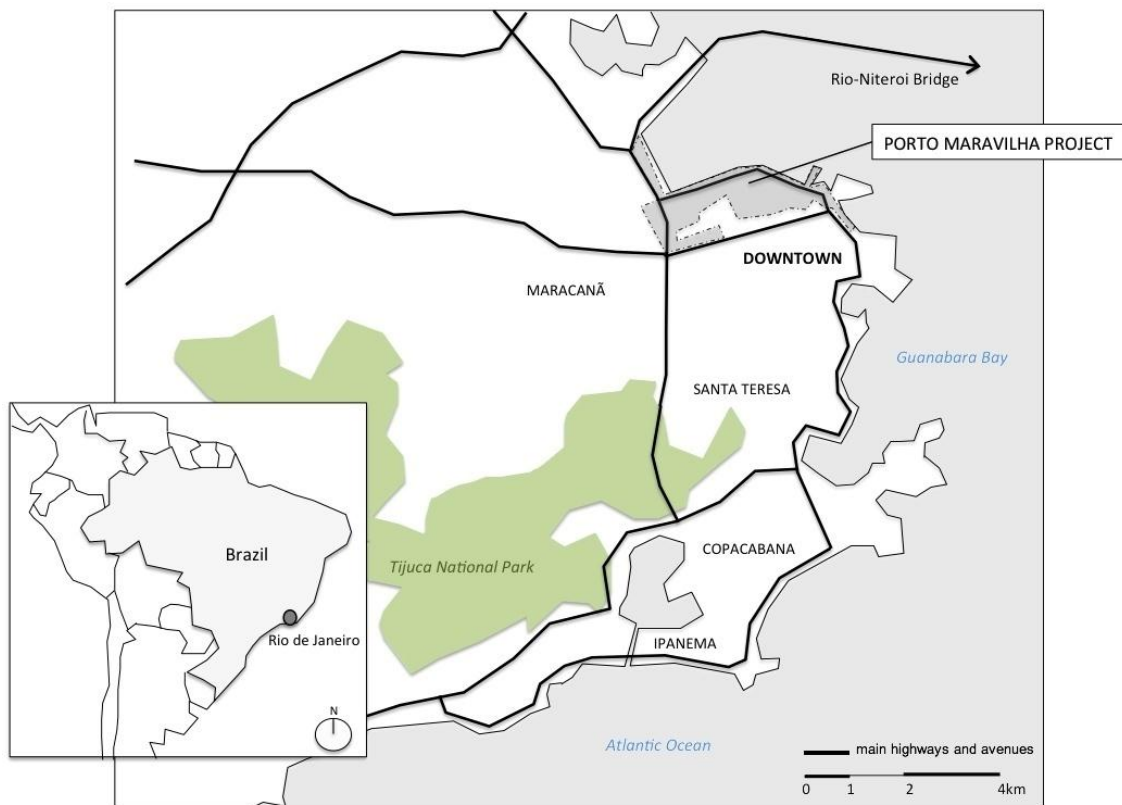

Figure 2: Rio de Janeiro and its portuary zone under redevelopment (source: author)
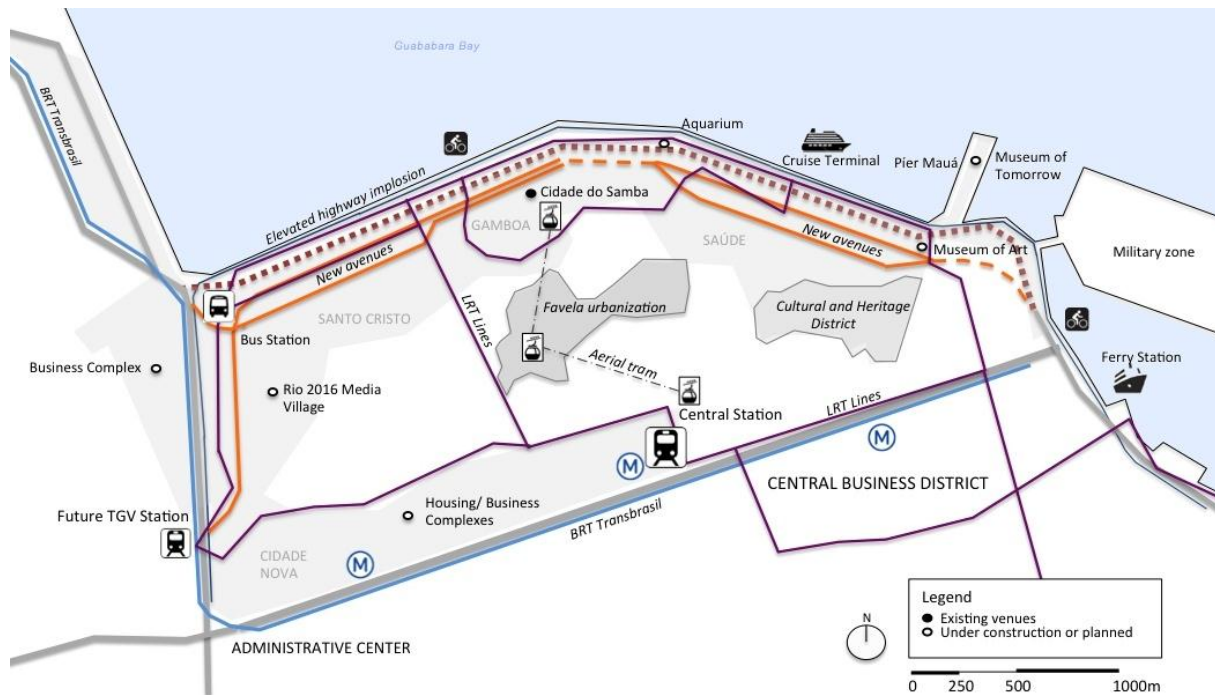
Figure 3: Porto Maravilha project: main transformations (source: author manipulation on official data)

This project is taken as our case study due to its singular context in Rio´s recent experience in redevelopment plans. From the very beginning of the planning process, information has always been released to the public in digital format and constant updates about the ongoing works feed an expanding official database. It is successful example from the perspective of a recent trend towards making public information more available. Another determining factor in this choice is that social networking systems are one of the key points and probably the main target for the making and maintenance of this database.

This allows a new experience and opportunity for city and citizens: the city digitally discloses redevelopment information in more didactic ways of visualization and interpretation while citizens take part of the digital/represented landscape before it is physically completed. More than an instrument to achieve citizen's awareness, like old analog medias, the option to integrate social networking systems invites them to be part of the process by sharing their opinions, individual experiences, by replying to comments, posting material and integrating to the virtual social environment of the place.

2. Porto Maravilha through the lens of social networking

Porto Maravilha´s website is the main platform for public information on the redevelopment plan and is comprised by a variety of information ranging from legislation revision outlines - regulations and official decrees - to news and updates on construction works and master planning presentation. Surely the page is designed to attend a broad spectrum of readers, from private entrepreneurs and financial investors to average citizens and local community. It is graphically clean and the navigation boards and major contents hierarchically well distributed into group of subjects (Figure 4). The homepage servers its main purpose of being the official channel of introduction and clarification of the project, however, it works more as database storage since it is straight in terms of communication and language used, besides restrict in terms of external "feeding".

On its right sidebar the website introduces external links to accounts, profiles and channels in different social networks, blogs, hosting and share services. By clicking one of these buttons the user is guided to a more informal environment, where fragments of the complete information is posted in a more dynamic way, aiming to meet the needs of contemporary communication.
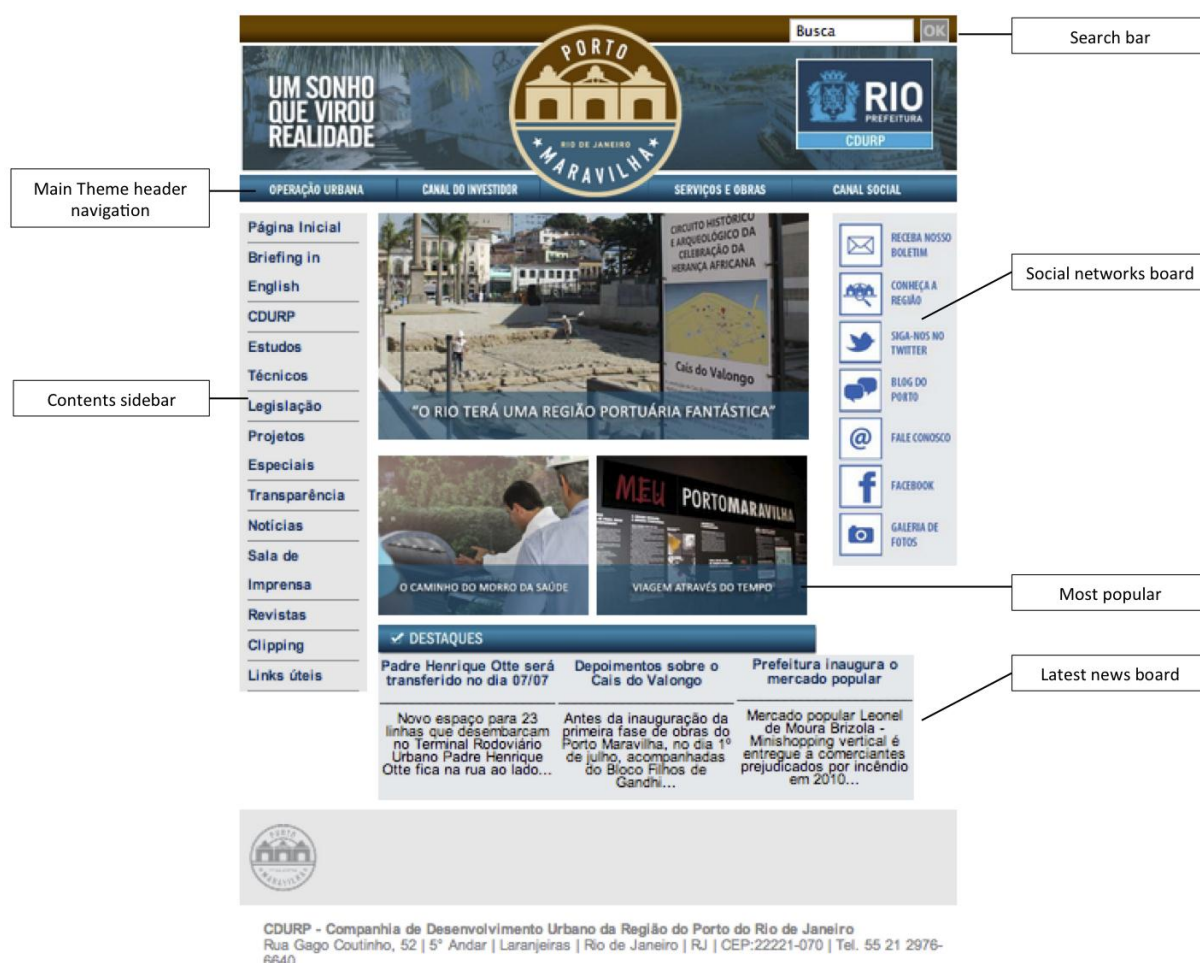
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Figure 4: Porto Maravilha official homepage: main features and navigation classification (Source: portomaravilha.com.br)

The contemporary means of communication somehow weaken official webpages as immediate sources of research and information. Shortened links, embedded codes and exchangeable interfaces all combined draw in audience in search of hands-on browsing and more sharing functions. The initial path is still there, populated and stored in the official server and domain name, but when its path is shared and replicated in another page, specially social medias, the audience tends to concentrate their attention and "react" to it in the place where it happened to be shared and where the interface is more user-friendly, less formal, immediate and interactive.

Porto Maravilha currently manages accounts in all the three main social medias: the micro blog Twitter, the social network Facebook and the video sharing service YouTube. Some of these services offer statistics well enough to support our discussions on the interactions of these media users, their participation and contributions to the construction of digital information on the redevelopment plan.

Porto Maravilha Twitter account (Figure 5) counted, as of June 2012, with more than 1,200 followers. As observed in the statistics below (Figure 6), aggregate tweets have noticeably increased since the intensification of construction works (according to the official schedule available in the website) and constant media coverage, and tend to take place in weekday´s business hours, when potentially the audience is connected to the Internet. This audience also tends to navigate through standard web browsers rather than applications, which may be interpreted that mobile devices still count to a small proportion of total accesses. This specific issue will be later discussed in the final considerations.
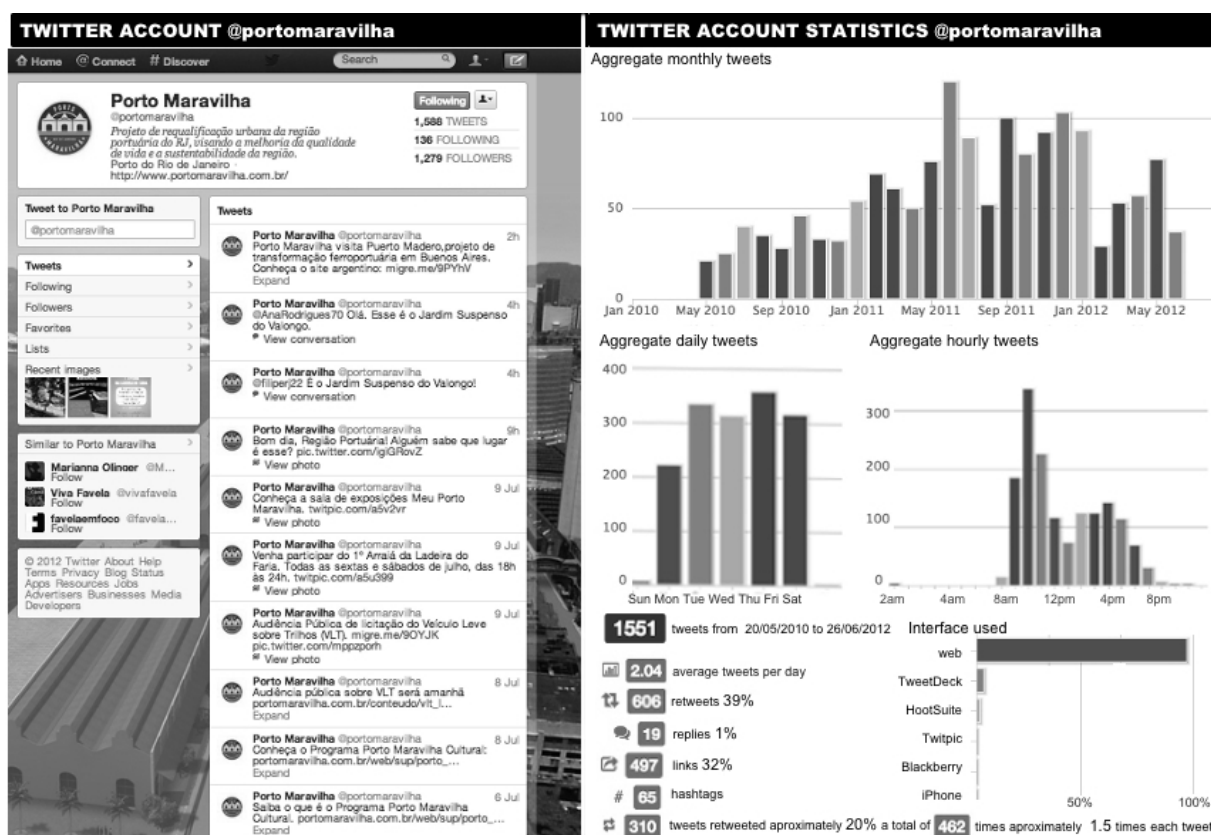
Figure 5 (left): Porto Maravilha micro blog feature. Figure 6 (right): Account statistics (Source: authors interpretation on statistics providers)

Statistics show that account followers tend to republish messages into their own accounts to reach their own followers instead. Nearly 20% of all Porto Maravilha tweets have been re-tweeted, but only 1% of them are related to replying actions, which may indicate a low level of interaction between and account manager and end-users. As a matter of fact, the platform has been used more as a source of timely information than as an open channel for discussion and collaborative work. It is also important to notice that the account itself replicates a lot of third parties local information on cultural events, historical facts and social activities in form of shortened links (roughly 40% of all messages).

All other parties but the official, here included news agencies and newspapers, besides being an important information feeder and account follower, play the role of multiplier and strengthen the potential views for each tweet. These accounts have remarkably more followers than Porto Maravilha and a re-tweeted message means pushing it to at least 100 times more Twitter user's home feed, in the case of an specific popular news agency.

As important as a tweet, a hashtag (metadata tag) containing key words about the plan allows to trace information posted from various sources and accounts at once, and has potential to become a discussion topic cited in other tweets. When typed in Twitter or in any search engine the tag "#portomaravilha" retrieves the latest posted information related to that subject and works as an efficient timeline of events going on in the district. A simple query at Google´s search engine using the term gives back nearly 200,000 results when it comes to general webpages, nearly 50,000 images, over 2,000 news archives and 2,000,000 videos. Judge whether the results are relevant or not may not change the importance a fix hashtag has to the spread of news and reach the general public.

The links shortened to messages and tweeted by Porto Maravilha include mainly images and videos available in other servers. Links to videos usually respond to their official YouTube channel (Figure 8). In their official channel, videos are regularly posted, considerably didactic and reach the general audience with almost realistic tri-dimensional projections of the plan layered over aerial footage or time-lapse portraying fieldwork advances. In the first case´s most representative example (Figure 7), relevant landscape transformations are emphasized

and coloured highlighted over an almost grey background corresponding to the real footage. Projects tri-dimensional simulated images also slide down and up the video when portrayed the most important intervention areas, helping the overall comprehension of the general audience. The images revealed in the video highlights positive transformations projected to the region, such as the removal of visual barriers that obstruct the bay view, the increase of greenery and open spaces for leisure, new low-carbon transportation system and buildings. Interviews with city and local authorities, as well as residents, are inserted in some intervals to enhance the benefits of the plan from the local to the broad scale.

Figure 7: Porto Maravilha Redevelopment Plan: main presentation video (Source: authors montage on YouTube video screenshots)

In their channel videos, besides also reached by browsing and searching engines, it is observed constant referrals from other video paths and platforms (Figure 10), as *mashup* codes allow videos to be easily embedded into any other webpage and social networks, such as Facebook, even by non-programming skilled user. This may explain the high number of views but low participation in term of comments generated in their own platform.
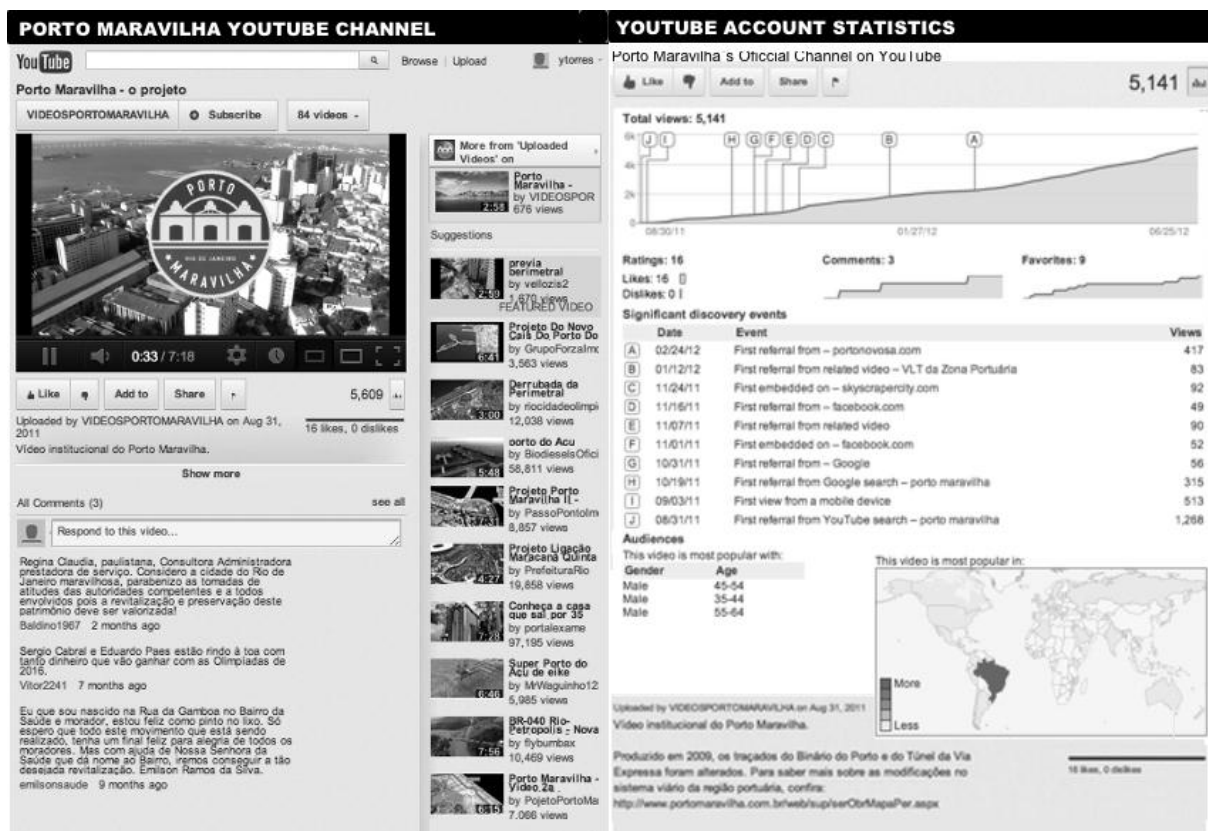

Figure 8: Porto Maravilha YouTube channel. Figure 10: YouTube account statistics (Source: YouTube)

Porto Maravilha profile on Facebook embeds links posted direct from their website domain, YouTube videos and third parties´ general information regarding the plan or the portuary zone itself, including its social and cultural events. The profile has far more activity and interaction with public than other networks. This may be related to the amount of options the interface offers to interact "reader" to "publisher", including "like post", "like picture", "share post", comment on board and the like. Comparing to micro blog, the possibility to combine text and image information in the same display box guarantees more convenient browsing and less visual disturbance, which is decisive to draw attention from audience and invite them to answer to it with a "digital action" that can carry simple but fundamental significances to be taken into account by planners.

Sharing services in which geographical-location estimation plays an important role in the comprehension of landscape. They are less direct but also important to the process of understanding connected citizens in social medias to enhance planning. Specifically in the case of image and photography sharing services, which also have become omnipresent in social networks, data from different users can be integrated and layered into map open sources (such as Google Maps and Yahoo Maps) according to their geo-positioning estimation, or manually tagged into a certain location name to be shared with others. This mechanism is still not included in any of Porto Maravilha profiles, but could be easily done to expand its social extension by inviting users to feed in their own registered impressions.

A brief look at one of these services reveals a great amount of physical-image database of Rio´s portuary zone landscape (Figure 12) geographically tagged in a map, with great amount of subjectivities and public participation by commenting and sharing. These individual actions are creating, in parallel to the official Porto Maravilha accounts, an important amount of data, as well as contributing to some cognitive local interpretation that may answer more effectively the citizens´ perception of the landscape, item to be raised in the next conclusive section.
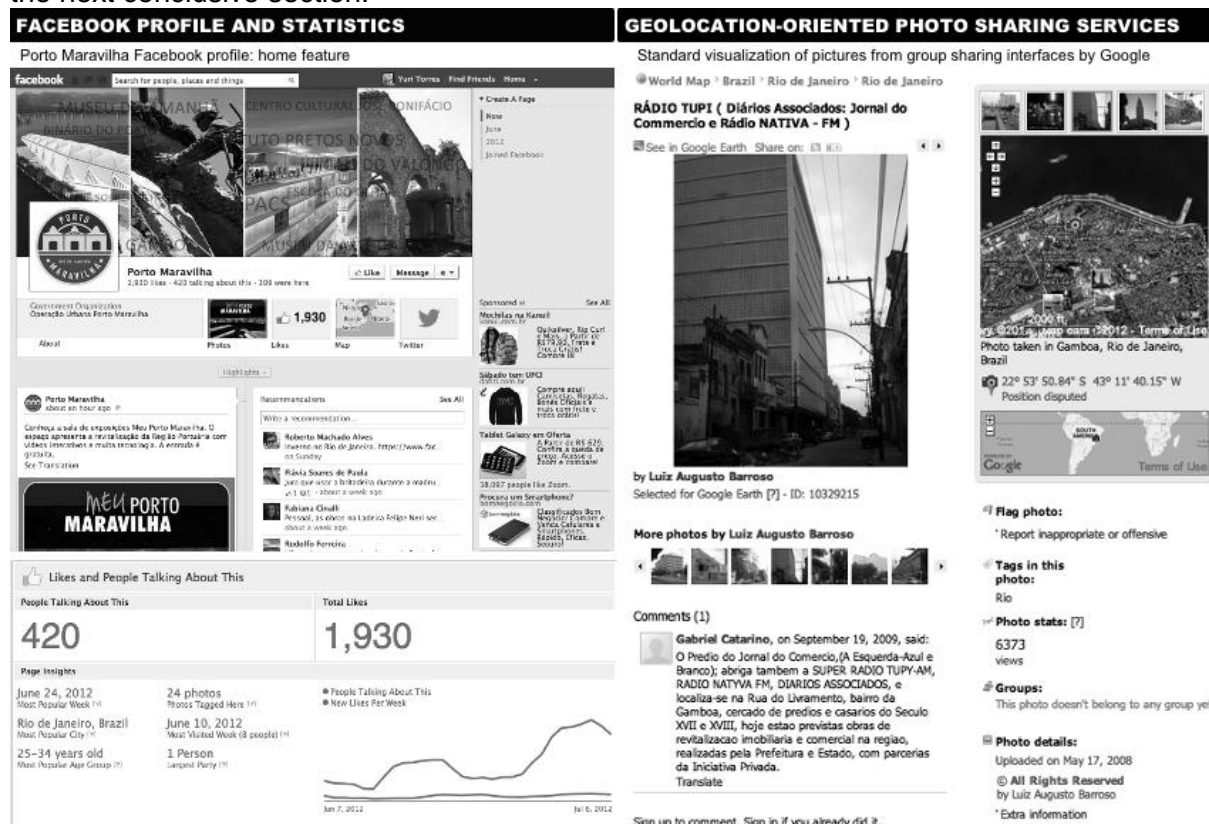

Figure 11(left): Porto Maravilha Facebook´s official profile home timeline and statistics (Source: Facebook). Figure 12 (right): Photo-sharing services showing posted images in the portuary map (Source: Google´s Panoramio)

3. Conclusions

This paper has looked at the roles of digital space in the processes of landscape transformation, focusing specifically at the official website www.portomaravilha.com.br and its social media correspondents, highlighting their performance in connecting Rio de Janeiro's citizens and public authorities concerning the redevelopment process of the portuary zone.

The study has shown that digital space has been playing a relevant role in publicizing and enlightening people about Rio de Janeiro's portuary area redevelopment process. The social medias have shown great potential as tools to mediate information and expectations related to the redevelopment process, more than the direct access to the official webpage itself. However, there are still a number of issues that should be reviewed in order to effectively improve their potentiality.

A high number of the users in fact do not contribute with comments or replies, and simply replicate and share information with others. There is a strong need to look at why it happens, and look for different opportunities to include these citizens in the decision-making process, in order to take into account their views and expectations. It does raises issues on better ways of targeting local users in order to have their feedback and enhance e-participation. For example, recent protocols allow trackbacks survey to be embedded in a webpage and group of citizens more likely to participate in the decision-making process online could be reached.

This is particularly important because Porto Maravilha's social medias have shown a strong potential in putting together public authorities, private sector and the city's inhabitants in the decision-making process. However, the real impact of citizens' contribution to landscape planning and transformation still needs to be checked, as well as the extent to which their claims are being met. It should also be noted that digital citizens´ footprints contain performative actions in the territory and should be taken into account in the planning process, such as the case of geo-tagged image sharing services.

A lot more is needed from the governmental side to take advantage of the virtual behaviour of citizens in social medias. The social bytes are fundamental tools in the contemporary planning practices for redevelopment projects and the impact of this technological choice is still unmeasured. Productive digital space opens up a range of new opportunities for our contemporary society, and these current landscape codes are part of a new metaphor we have to learn how to better deal with.

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