

GREEN +

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enhancing, sharing and protecting our green urban spaces

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0. INTRODUCTION

OBJECTIVE

This project aims to explore how technology can be used in order to **enhance, share and protect public activities in urban green spaces** by showcasing the character and the services they provide.

VISION

Green areas represent fundamental items of our urban life and perform multiple functions. They are spaces for **recreation, socialization, outdoor activity, leisure**, and they also contribute to the socio-ecological health of our urban environments.

In order to better perform these functions, urban green spaces need to be carefully planned and enhanced. It is often not easy to take into account all the layers of information that can help to better analyse and design urban green areas. Important elements of analysis - such as the social aspects, the kind of uses, the perceptions, and the liveability of green spaces - are often lacking. A strong tradition, for instance, promotes an approach to the design of green elements that privileges the ecological component over the social one (see for instance Mc Harg 1969).

However, we believe that it is extremely important to take into account other **layers of information**, allowing users to better appropriate green areas and participate

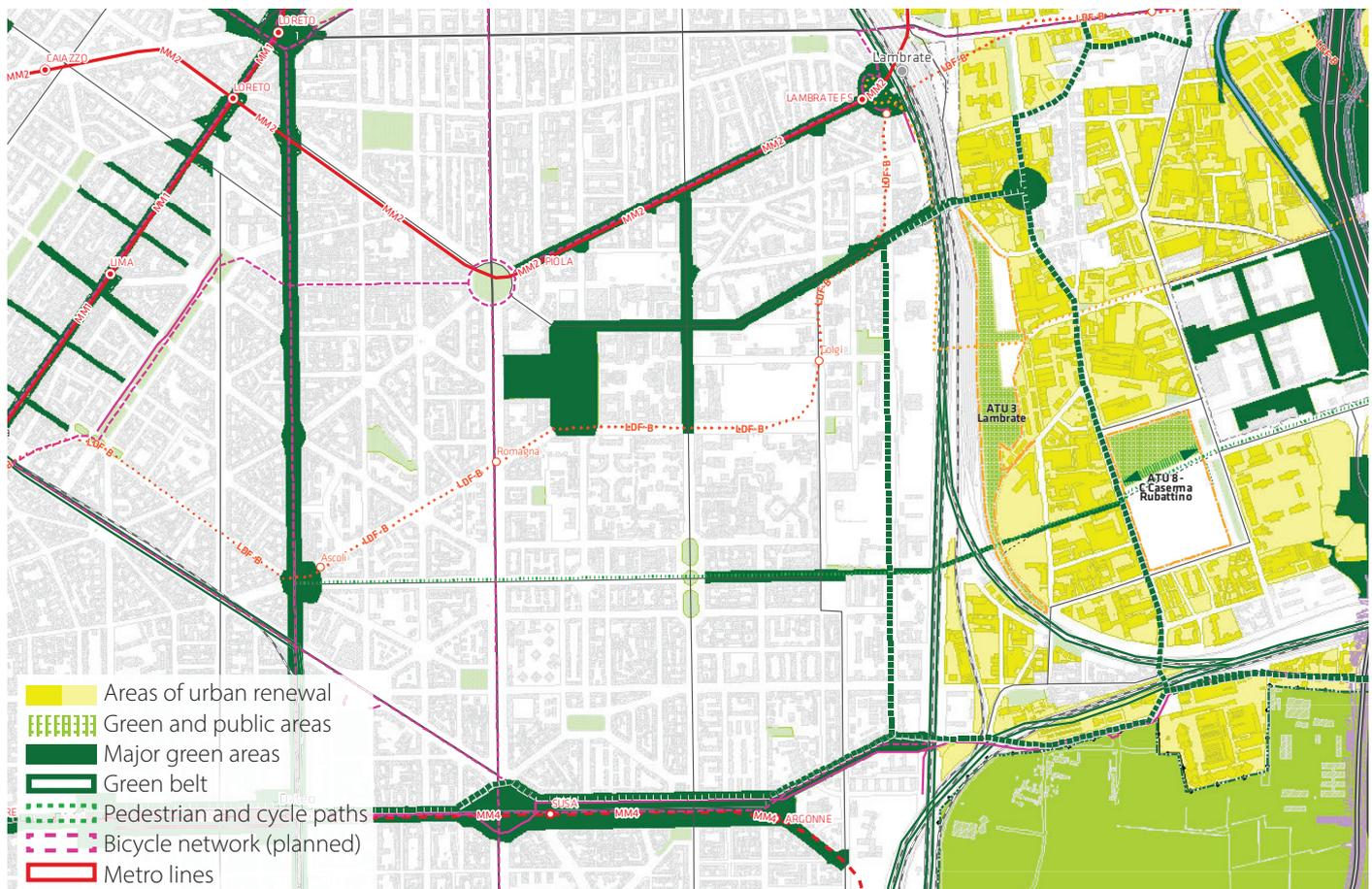
to the process of transformation and improvement. Through this document we aim to demonstrate that certain new technologies can represent a powerful tool to better collect, share, organize information on urban green spaces. They help to make users actively participate in the production of knowledge and, ultimately, in the design and intervention on green spaces.

LOCATION AND CONTEXT

Milan is a municipality of about 1.3 million inhabitants, part of a much larger urban region that covers the entire Lombardy Region and Padana Valley in the North of Italy. Milan's urban planning is officially regulated by a planning document called PGT (Territorial Governance Plan) that was approved in 2012. The main strategies, lines of actions, regulations for the future development of the city are defined in this document.

In this comprehensive/city scale plan, the consideration of green areas is carried out in a top-down manner. The tendency is to consider green spaces in a "quantitative" way, as forms of compensation for new development areas and build-up spaces.

We believe that there is a necessity to better integrate qualitative and bottom-up dimensions to this prevalent top down view on urban green areas.



Sample from Milan's PGT Document "Guidelines for urban development areas". Taken from Milan municipality, planning department.

1. PROCESS

STRATEGY

INPUT



Municipality - provides online GIS information for the public such as green space type, location of trees, land use and related facilities (available at: <http://www.cartografia.regione.lombardia.it/geoportale>)

[cartografia.regione.lombardia.it/geoportale](http://www.cartografia.regione.lombardia.it/geoportale)



Google Maps - provide the system with basic information like location and orientation.



Users - insert their own location, their activity, rating of a green space, comments and reports.



OUTPUT



Facilities - simple and friendly menu of the services available (based on google + the municipality database): public toilets, kids playground, bike sharing point etc.



Green features - number of trees, area of grass, shadow, water sources.



Social activity - individuals and groups searching / proposing activities for interaction.



Network info - based on the three types of inputs the system generates a comparison menu related to rating and other features.

INPUTS

Municipalities

The GIS information gathered and provided by local authorities will provide a base layer of information for the Green+ app. Services such as Google maps will also provide a base layer allowing users to more easily identify the location.

Social Media

By gathering information through social media services such as Facebook, Twitter and Foursquare we can supplement information gathered through traditional GIS services. The type of information gathered via the social media is a direct link to the community and what they are saying about the spaces they are using. This information is usually real time and at the convenience of the user thus more widespread than only using town hall/public meetings to gather information.

Users

In addition to information gathered via social media will be the users of the Green+ app themselves. These users will be able to Geo-tag their location with the gps in their smartphone, insert their activity, rate the green space and its facilities while also leaving short comments about their experience there.

OUTPUTS

The GIS information overlaid on a typical Google map will provide the Green+ app users with valuable information such as tree/shaded areas, open green spaces, toilet facilities, sport areas, etc. Information collected on the app combined with the existing and ever growing amount of information already listed on social media sites the will give the Green+ app an extensive amount of social data as well.

The end result will be a single app where users can go to view the information of their location along with the comments and ratings of their fellow users.

The municipalities will also receive an informational output that comes directly from the community. Any local authority looking to gather information regarding their parks and green spaces will be able to access Green+ to view the ratings and comments about that space. This provides information that might not be provided through typical town hall/public meetings by engaging many additional users.

2. ANALYSIS

SOCIAL ANALYSIS

The first important step in our proposal for green spaces in Milan is a social survey, carried out through the use of social media. Platforms such as Twitter, Facebook, Foursquare are used to catch and map citizens' comments in their real-time use of green spaces in Milan. The aim of this analysis is to understand people's opinions, needs, and perceptions on green areas using the filter of the social platforms. These platforms will enable and facilitate the analysis. They allow widening the basin of information and relying on real-time, spontaneous comments.

The survey is conducted by using both a more general as well as in a more specific view. The first type of analysis addresses the generality of the green spaces in Milan. Essentially, it aims to grab opinions, impressions of diverse users about the issue of green areas in Milan. What are the main problems, what is missing, what are the positive and negative sides.

The more specific kind of analysis targets samples of specific parks and green areas, assessing citizens' comments on them. This represents a necessary "zoom-in" that will allow to relate citizens' perceptions to the relevant green spaces of the Municipality of Milan. Furthermore, the information collected through the social (network) survey is further analysed, categorized and ranked. More specifically "**descriptions - impressions - needs - proposals**" will be the guiding categories that allow to qualify and articulate the information gathered through the social analysis.

DESCRIPTIONS are qualitative comments that users make referring to what they see and what captures their attention. An example founded on Foursquare about descriptions are the following:

🗨️ (Piazza Piola):

"Piazza molto carina con dog park centrale, ben servita per i mezzi, farmacia, bar, libreria, etc"

(Translation: "very nice square with central dog park, well connected with public transport, with a Pharmacy, bar, library, etc".)

<https://it.foursquare.com/v/piazzale-gabrio-piola/4c735ff>

IMPRESSIONS are qualitative comments, perceptions, that users spontaneously and randomly make by the direct experience of green spaces.

An example founded on Twitter about impressions on green spaces in Milan are the following:

🗨️ (Parco Sempione):

Christopher Rudder [@clrudder](#) 2 mag 2012 : Milan's park "Parco Sempione" is so peaceful...

(<https://twitter.com/search?q=parco%20sempione%20milan&src=typd>)

The category **NEEDS** refers to clear expressions of unsatisfied necessities, or demands, requirements from users of green areas in Milan.

Examples are the followings:

🗨️ @Falacosa_Giusta milano è piena di aree verdi, quasi tutti i marciapiedi potrebbero essere oasi, ma vengono usati as car parkings..

(translation: Milan is full of green areas, almost every sidewalk could be an oasis of green but they are used as car parkings..) <https://twitter.com/BeppeAccardo/status/33643330633461760/photo/1>

Public Design at Milan Design Week asks that public spaces be more considerate to their users needs <http://bit.ly/c0ZKxk> Renée van Staveren [@GlobalSitePlans](#) 4 nov

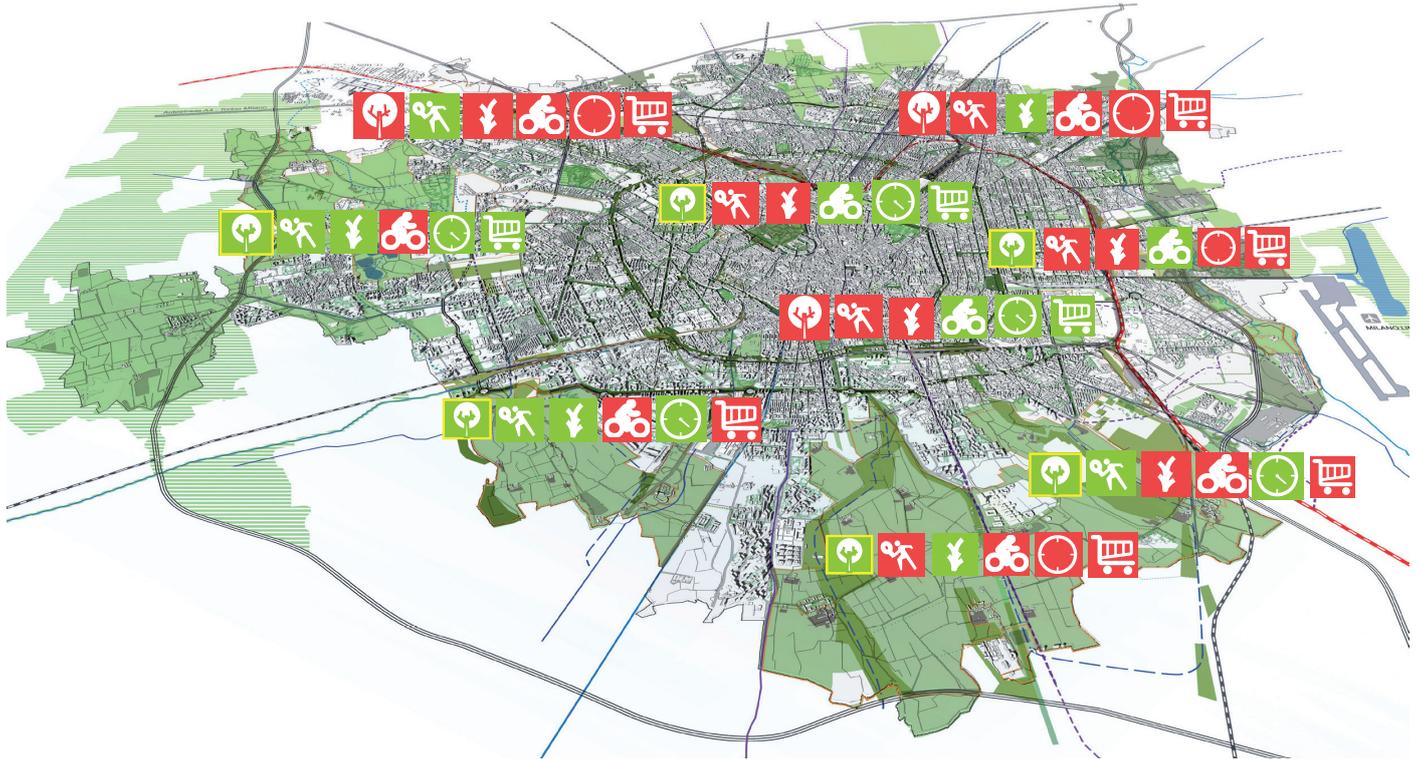
PROPOSALS represents a proactive category, referring to initiatives, actions, suggestions for change that are proposed or performed by users.

Examples are the followings:

🗨️ RT @SasakiDesign: A form of Park(ing) in Milan, turning parking spaces into public gardens <http://ow.ly/q1c4X> via @GlobalSitePlans

Tomorrow join our discovery of the abandoned world in #Milan, <http://bit.ly/A9HJ6p> we'll leave by bike at 9:45 from point A!

In a further step the information gathered through the social analysis will be assessed and summarized. As shown in the next page, the aim is to highlight the most relevant and sensitive topics emerged by people comments in the social networks. They represent key themes brought to the fore through the social network analysis. They can indicate both positive sides (green color) as well as negative sides of green spaces (red color) as perceived by users. This way it is possible to add a social layer and enrich the map of green spaces in Milan.



MAIN TOPICS

+ Positive perception - Negative perception



Trees' density and shadow



Sport Facilities



Gardening areas



Soft mobility

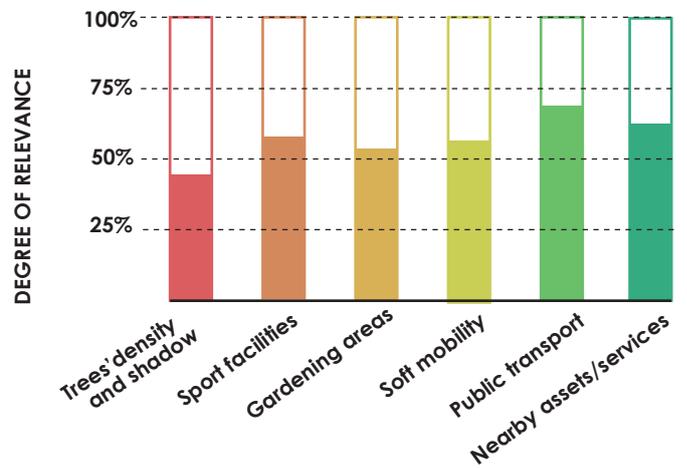


Public transport



Nearby assets/services

SCHEME OF RELEVANT TOPICS EMERGED FROM THE SOCIAL ANALYSIS



3. ZOOM IN

KEY DESIGN ELEMENTS

Gathering the technic information, as well as reflecting on people's comments and observations, provided us a wide range of substantial material to work with. We have chosen one specific area in the city to zoom in and enlarge the scope to a detailed map according to our strategy (see chapter 1).

The chosen site is **Piazza Leonardo da Vinci** which is a main square in Città Studi neighborhood, north east part of Milan. This square is used by a variety of populations as it is located in close proximity to Politecnico di Milano main campus as well as to elementary school, in the heart of a central neighborhood and nearby migrants clusters.

TECHNICAL INPUTS *(information that is available by the authorities/ politecnico / google and was processed by us)*



SOCIAL NETWORKS INPUTS *(taken from the web and can be used in our platform)*



lovely square, be sure to check the "harp pub guinness" to have breakfast, lunch, aperitivo or to drink something!

Federica · August 1, 2010



Una piazza bellissima! (Translation: beautiful square!)

Rebecca A. · May 16, 2013



È bello trovare un po' di terra nei percorsi non pavimentati. Mi viene la voglia di togliere le scarpe per mettermi in contatto con il terreno. (Translation: It's nice to find a bit of land in locations that are not paved. I get the urge to take off your shoes to get in touch with the ground.)

Olavo · November 13, 2013

All quotes are taken from: <https://foursquare.com/v/piazza-leonardo-da-vinci-milano-mi/4bd4967a637ba593a301f570>

4. CONCLUDING REMARKS

1. IDENTIFYING SPECIFIC NEEDS

This project will help establish the specific needs of public spaces through the direct interaction with the community and those who use the spaces. These needs could include everything from the desire to connect with other individuals to physical structures needed to accommodate particular activities. The Green+ app creates an open forum for the users to identify exactly what these needs are.

2. FIXING PROBLEMS

By identifying the actual use of a space both the users and the community will be able to better utilize and plan green spaces in the future. The Green+ app addresses social issues facing parks and open spaces by connecting and empowering individuals letting them express their opinions and concerns in real-time.

3. DATA GATHERING FOR FURTHER USE

Local municipalities and governing bodies will be able to use the information provided directly by the users to design and plan the spaces requested and needed by the local community.

4. PARTICIPATION AND ENGAGEMENT

By creating the Green+ app more people will be encouraged to engage and participate through both the ease of use and their own desire to meet new people while better utilizing their local park. This bottom-up approach benefits the needs of final users more effectively than a top-down approach traditionally used.

Green+ seeks to provide users with valuable information (both social and ecological), engage users through participation allowing them to be heard, and to create a method of bottom-up planning to provide green spaces that better serve the community they're in.

