

From Student Housing to Connected Places

Reinventing the Communication
System for Universities' Residences

Politecnico di Milano
Design School

Master of Science in Product Service System Design

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Abstract

In Italy, the last two decades have proven to be crucial for the development of student housing. Compared to the other European countries, but also the rest of the world, our nation appears to have lower standards and to be unable to satisfy the high demand for accommodation of international and off-site students, whose number, thanks to Athenaeums' internationalisation strategies, has considerably increased over the years. Even though this tendency has led to invest in new structures, the contemporary research has proven significant attention to the architectural and executive aspects more than to the relational and interaction aspects which concern the community that lives in these spaces.

Starting from this context, the thesis' objective is investigating the instruments and models able to foster the creation of an internal community, where all the different users can feel welcome and participate in it. To achieve this objective, communication, spatial and service design are fundamental.

The search path starts with a deepened analysis on the design of spaces and services and their relation with communication design, with a consecutive analysis on the state of the art of the Milanese universities, concerning these two macro-themes. The results reveals that, beyond the need to increase the accommodations number, there is the urgency of developing and empowering the environment and the communication of the dormitory system.

Following the investigation of the elements of a student housing system that relates to the communicative sphere, which does not overlook the service-system but, on the contrary, is an integral part of it, the research project *Comunicare Ospitando* - commissioned by the Conservation and Building Services to the Design Department of Politecnico di Milano - is described as a practical example. The specific objective of this project is redesigning the communicative system of the dormitories through the design of environmental communication and an audio-visual institutional and procedural communication system. From the identification of the strength and the weak points of the project, arises the idea and the necessity to create a tool, hybrid between a manual and a toolkit, able to analyse,

thanks to a metadesign approach, the single elements belonging to a communicative system of a student housing.

How to. From Student housing to Connected Places presents the design guidelines of each touchpoint and simplifies the explanation of the system allowing to design elements able to preserve the identity and the coherence of the system, turning a student housing into a connected and vibrant place.

In Italia, gli ultimi due decenni si sono rivelati di fondamentale importanza per lo sviluppo delle Residenze studentesche. In confronto alle altre nazioni europee, e al resto del mondo, il nostro Paese risulta essere meno performante e non in grado di soddisfare la grande richiesta di alloggi da parte di studenti fuori sede e stranieri, il cui numero, grazie alle strategie di internazionalizzazione intraprese dagli Atenei, è andato crescendo sempre più negli anni. Se da un lato questa tendenza ha portato ad investire in nuove strutture, la ricerca contemporanea ha dimostrato un'attenzione maggiore sugli aspetti costruttivi e realizzativi tralasciando gli aspetti relazionali e di interazione della comunità che abita questi spazi.

Partendo da questo contesto, l'obiettivo della tesi è di investigare strumenti e modelli che favoriscano la creazione di una comunità interna, in cui tutti i diversi utenti possano essere accolti sentendosi partecipi della stessa. Per raggiungere questo obiettivo il design della comunicazione, degli spazi e dei servizi offerti risulta fondamentale.

Il percorso di ricerca ha inizio con un'approfondita analisi sulla progettazione degli spazi-servizi e la loro relazione con il progetto della comunicazione, con una successiva analisi sullo stato dell'arte delle residenze delle università milanesi relativamente a queste due macro-aree. E' quindi emerso quanto, oltre alla necessità di incrementare il numero di alloggi, ci sia il bisogno di sviluppare e potenziare gli ambienti e la comunicazione del sistema-dormitorio.

In seguito allo studio degli elementi del sistema-dormitorio connessi alla sfera comunicativa, che non deve prescindere dal sistema servizio ma parte integrante, viene descritto come esempio applicativo il progetto di ricerca Comunicare Ospitando - commissionato dall'Area Tecnico Edilizia al Dipartimento di Design del Politecnico di Milano. L'obiettivo specifico di questo lavoro verte al ripensamento del sistema comunicativo delle residenze dell'Ateneo, attraverso la progettazione della segnaletica interna e la realizzazione

di un sistema di comunicazione audiovisivo istituzionale e procedurale. Individuandone i punti di forza e di debolezza nasce così l'idea e l'opportunità di creare un supporto, ibrido tra un manual e un toolkit, in grado di analizzare, tramite un processo metaprogettuale, i singoli elementi appartenenti al sistema comunicativo della residenza universitaria.

How to. From Student Housing to Connected Places presenta le linee guida per la progettazione di ogni touchpoint e semplifica la spiegazione del sistema, dando modo di creare elaborati che preservino la stessa identità di base e la coerenza sistemica, trasformando una residenza studentesca in un luogo connesso e vibrante.

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The living model of a student housing

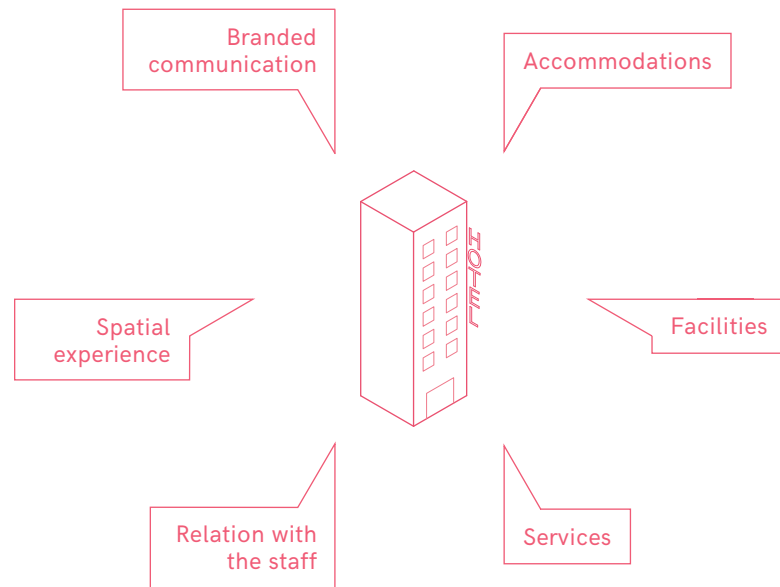
Over the last two decades, Italy found itself to deal with the theme of student housing and has started to explore it to level out with the other European countries. In this chapter, we will understand the elements of the system that compose a student dormitory, with a brief historical parenthesis and an explanation of state of the art in Italy and then in Milan.

1.1 Student housing: another idea of hospitality

The concept of hospitality dates back to the past. Nowadays is possible to distinguish between numerous structures and services which provides different treatments; consider the differences between hotels, hostels, scattered hotels, private homes (Airbnb), and so forth. Despite the diversity in typology and quality of service provided, they all share a similar offering map, composed of physical and spatial elements, services, and digital and intangible aspects.

The sum of all these components produces a hospitality service able to provide different experiences answering the diverse users' needs. If we analyse the particular case of a student housing offering map is possible to notice some common points with hospitality facility; however, the relational

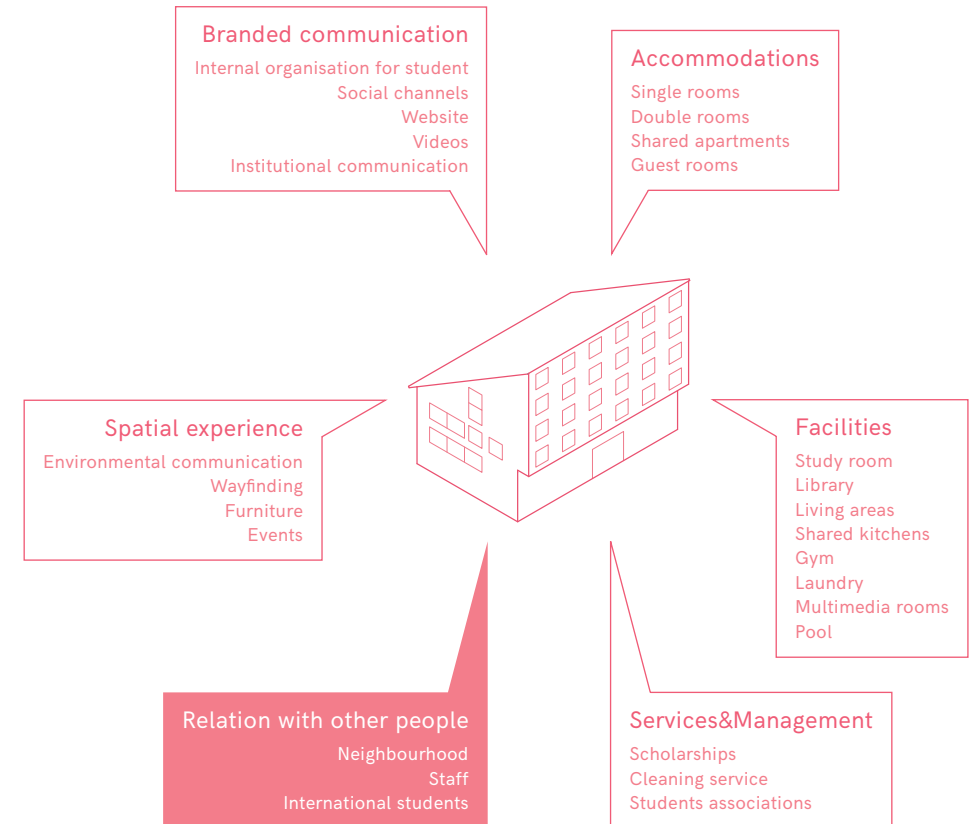
01
Offering map of
hospitality facilities



aspect among the users here becomes a key element since one of the student housings' main objective is creating a community. This last aspect reflects itself on the design aspects of all the system that needs to follow this guiding principle.

Operating a division of the map is possible to identify three main thematic areas: environment, services, and communication. In particular, environment and communication are two macro themes of extraordinary importance for student housing that continuously affect each other. In the following paragraph and chapters, these elements and their implication on the design process will be explained and analysed in depth.

02
Offering map of student
housing



1.2 A brief history of Universities and students' dormitories

The origins of students' residences date back to the Middle Ages and reflect the conception that a country had of the University system. There are two schools of thought for the establishment of a university, the American and the European one, which resulted in an anti-urban and urban model (Bogoni, 2001).

The first case is represented by the traditional American university campus, where the educational model is based on creating its own social community, rather than integrating in the one of the existing urban context. In this case, the building of the University does not have any relation with the city; indeed, it is usually placed outside the urban area and surrounded by nature. The American system is composed of low-density monofunctional buildings connected by big streets and green areas. In this system structure university campus gathers different functions: laboratories, libraries, auditoriums, gyms, shops, places of worship, and dormitories (Bogoni, 2001). It is, in every aspect, an independent entity that is closed to the difficulties and contradictions of the city. The American conception of the campus is based on the idea of the University as a productive system, that is supposed to train graduates in a safe environment.

On the opposite, in Europe, University aims at training critical and judicious personalities and, for this reason, it favors an urban model where the campus is not a single entity positioned outside of the city, but it is articulated throughout it. This fact is particularly felt in Italy¹, where, since the beginnings, the university's buildings were deeply rooted inside the urban context.

It is during the Middle Ages that the urban model started to appear. Previously there was not the necessity of having places where to host the students; even the educational activities were carried out in private buildings since universities did not use to have their headquarters (Belforte, 1996). With the birth of the firsts *universitas*, there was the need to host all the offsite students with alternative measures compared to the real estate market. Starting from the 12th century, the first boarding schools (*collegium*) appeared in different European countries, at first in Paris but then even in England (*halls*) and in Germany (*bursae*). Here out of pocket professors and students received room and board together with books and training (Belforte, 1996). In Italy,

1. The University urban model, although it is diffused around Europe, can be defined as Italian. There is a centuries-old tradition that bounds it to the educational culture of our country and numerous examples of universities erected in the Middle Ages like the one of Padova, Pavia, Pisa, Bologna, etcetera.

the situation was different since boarding schools provided room and board but not training, and they were usually funded and managed by religious orders. It was only during the 14th century that the collegium typology started to spread around Europe, still, there were no given construction guidelines until the 16th century when the Jesuits gave to it architectural rules. The buildings were characterised by private single rooms divided by the collective spaces. Only during the Enlightenment, the first double rooms started to appear, and the boarding schools were considered in the urban masterplans.

The building of universities' residences and dormitories, as we know them today, diffused in Italy between 1950 and 1975 when several financial operations allowed to improve the number of accommodations, services, and to provide scholarships. An additional incentive to build universities' dormitories came during the 80s when the growth of the student mobility requested appropriate facilities and the quality of a university was measured according to its capacity of satisfying the students' needs (Bellini, 2015).

1.3 The urban model of universities' residences

As is the case for the academic establishment models, University dormitories have, as well, an anti-urban and urban model.

The first one refers to the world of the American college, while the second and oldest one considers the dormitories as buildings which are deeply connected to the urban fabric and an incubator of urban development (Cascone & Sciuto, 2016). Countries like Italy, Spain, Germany, and France consider this kind of model where the dormitory is a part of the city.

The consequence of the urban model is the fact that the student is actively involved in the city life enjoying its facilities and services. Academics are considered a vehicle of urban, social, and economic regeneration that with their actions and interactions within the context keep the urban fabric alive (Collina et al., 2018).

Being able to provide facilities and services that can support and incentivise the development of education is a crucial factor in judging a country degree of modernity and innovation.

fig. 1 Aerial view of Liberty University campus in Virginia, an example of anti-urban model of university



“Learning city, learning town, learning community and learning region are some of the terms used to describe a phenomenon that characterises many of the most important towns and regions in the Western world. There is now a widely shared awareness that the future depends increasingly on the development of human and social capital, and the ability to attract this capital is based on the construction of that which can be defined as learning communities, societies characterized by the strong desire of citizens to influence the place where they live, love, learn and create”

(Ciaramella & Del Gatto, 2012, p. 271).

Among all the other environments University dormitories are the perfect places where society, culture, and services merge. As Maria Luisa Gatto explains

“Residences can interpret the idea of a cohesive and inclusive city, by interpreting the role of social condenser capable of acting as an attractive force on young and dynamic users. So that they can generate a sense of community and belonging, fundamental act for every project of “mending” of the city”

(Bellini et al., 2015).

There is a mutual exchange between students and the city, and it is the task of universities to construct facilities able to host and satisfy the needs of this particular kind of user.



fig. 2 Aerial view of Barcelona University, an example of urban model of university

2. The research consisted in a questionnaire, design by the ABC Department of Politecnico di Milano, distributed among 388 offsite students that have or have not completed the university studies in four Milanese Universities (Politecnico di Milano, Università degli studi di Milano, Università Commerciale Luigi Bocconi, Università Cattolica del Sacro Cuore).

1.4 Living the student housing: the users' needs

Student housing represents a special idea of hospitality that is strongly shaped by the necessities of its inhabitants.

The needs and expectations of an offsite student depend on several factors, the age, the place of birth, the gender, the social extraction, the cultural level, the typology of studies, the proximity of the family, and the personal interests. Moreover, it is possible that the student is leaving home and his parents for the first time, and, with them, his habits and social environment. This condition is what the sociologists define the *condition of early migration* (Bellini, 2015).

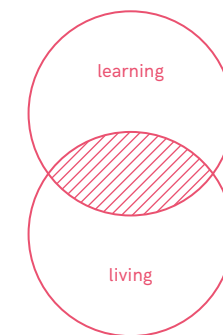
The way of living of an offsite student is characterised by temporariness and stability. If on the one hand is true that he will not dwell in residence for more than some years, on the other hand, there is the need to feel welcome and surrounded by a safe environment. Without leaving behind these last two aspects, dormitories also need to support the academic career of the students, with a consequent union of learning and living spheres (Bellintani et al., 2016).

According to a Politecnico di Milano research done in 2009² (Bellintani et al., 2016), there are four main selection criteria for students to choose accommodation.

1. The first one refers to the location and so the distance of the university or the public transports.
2. The second one relates to the characteristics of the accommodation; students need a right balance between private and public spaces where they can share their life with the others and create relationships.
3. The third one refers to the available services, for students having at their disposal different benefits that can facilitate their everyday life is crucial.
4. The fourth and last one relates to the performances and characteristics of the building, which concerns more the quality of the furniture and the environment in general.

The dualism of privacy and sociality affects particularly the internal organisation of the dorm that needs to integrate private, semi-private, semi-public, and public spaces to meet the users' needs (Rizzo, 2004).

The residence must answer the students' needs merging



03 Learning and living, the two spheres of a student housing

the private and social spheres in spaces that are *transitional* and chameleonic, able to change the designated use according to the moments of the day. From this perspective designers and architects are starting to reconsider all the spaces of the dormitory, with a particular focus on hallways that, with some spatial expedient, become social areas or places where to study (Fabris, 2014).

Nowadays we can count four organisational and functional models for the student housing that have been defined over time: hotel, mini apartment, integrated nucleus, and the mixed model. Each one refers to a layout of the rooms without considering the level of complexity of the services and its positioning. Besides, every solution contemplates the necessities of a different typology of users since the student housing hosts also visiting professors and their families and, together with these last, a different level of privacy and sociality.



fig. 3 Transitional spaces in Nido Student Housing in Spitalfields, London

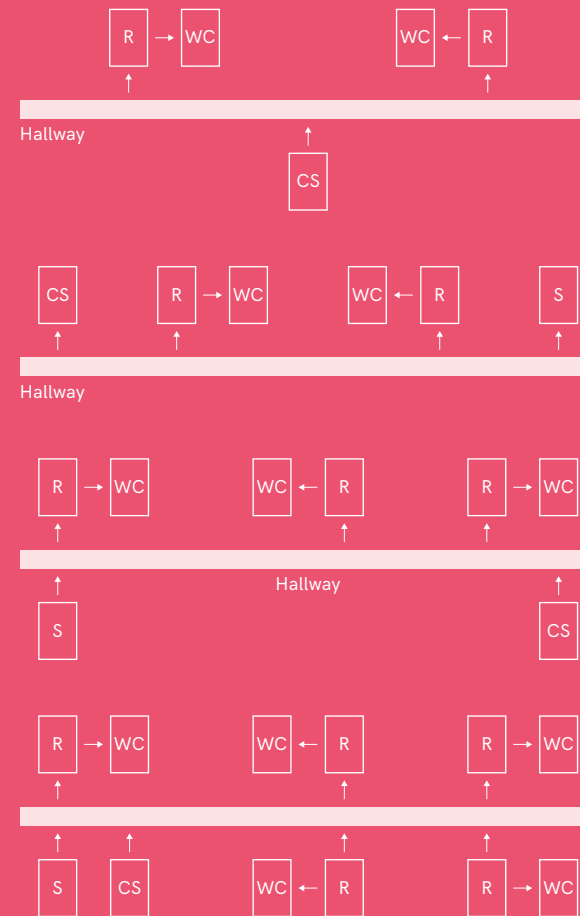
Focus: organisational and functional models

This focus analyses the functional and organisational models of student housing. For each one of these last, there are two examples taken from all over the world.

The hotel model

The hotel model proposes the same distribution of the accommodating structures, with rooms aligned one next to each other and all the common spaces outside. This solution is one of the most used and fosters the socialisation among the students since all the common activities need to be carried on with the others. It is usually preferred by first-year students that want to integrate and know new people.

O4
Organisational and functional model of the hotel model



Legenda
R=Room WC=Bathroom S=Stairs CS=Collective spaces



Myspace Student Housing

MEK Architects + Link-Signatur
Torvet, Trondheim 2012

The dormitory is placed in a collective urban space, hosting big gardens and the university building, that attracts all the population of the area. The structure presents exciting solutions for the public, semi-public, and private spaces. There is a gradual transition between the common areas, on the ground floor, towards the private one on the upper levels. The common spaces are not defined, but the students organising the areas and the furniture define each time the function. Kitchens are big, with lots of workstations that allows the students a simultaneous use of the space. Hallways are particularly interesting since they have been broadened compared to the standard measures and become social spaces where students can have fun or study. Rooms are small but allow to conduct the daily activities and to study. In this dormitory the social spaces are primary, to reinforce this idea in each room there is a device, called info panel, where, thanks to a personal account, students can talk and share ideas in the privacy of their bedrooms.

Spaces and services

- Urban
- Suburban
- Dedicated internal common spaces
- Dedicated external common spaces
- Private external spaces
- Building's services and equipments
(common living rooms, study rooms, laundry, shared kitchen,...)

Neighborhood

- Proximity to residential areas
- Proximity to commercial areas
- Proximity to University
- Other services (e.g. shops, sports fields, nightlife)
- Connection with means of transport



fig. 4 External view of Myspace Student Housing

fig. 5 Hallways in Myspace Student Housing

fig. 6 Common spaces of Myspace Student Housing

fig. 7 Shared kitchen of Myspace Student Housing



Simmons Hall MIT

Steven Holl Architects
Cambridge, 2002

This dormitory is part of an American campus, for this reason, its model is anti-urban but still tries to create a live community within the campus. To obtain this result, the architect Steven Holl has thought about different collective spaces: a canteen, a restaurant, many public spaces, a theatre, and some sports facilities. Each one is characterised by curious wells of light that make the building porous. The Simmons Hall is a huge building of 117 meters, completely different from the European dormitories; it has 350 rooms that are single or double arranged in different units that share only the bathroom. Each room contains a furniture series designed by the architect that is combinable and allow the students to create their environment. The great number and quality of the common spaces allow students to create a strong internal community even with the other campus' inhabitants.

Spaces and services

- Urban
- Suburban
- Dedicated internal common spaces
- Dedicated external common spaces
- Private external spaces
- Building's services and equipments
(common living rooms, study rooms, laundry, shared kitchen,...)

Neighborhood

- Proximity to residential areas
- Proximity to commercial areas
- Proximity to University
- Other services (e.g. shops, sports fields, nightlife)
- Connection with means of transport

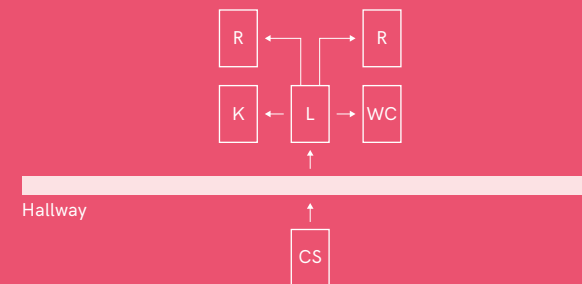


fig. 8 External view of Simmons Hall
fig. 9 Common spaces of Simmons Hall
fig. 10 Well of light in the Simmons Hall
fig. 11 Common spaces of Simmons Hall

The mini apartment model

The mini apartment solution is the one that provides more privacy. Each room that usually can host two people is surrounded by a shared space that provides all the functions typical of the contemporary way of living: cooking area, study area, rest area, private toilette and sometimes living room. For its independent nature, it is usually preferred by students at their last year, visiting professors with families, or PhD students.

05
Organisational and functional model of the mini apartment model



Legenda

R=Room WC=Bathroom S=Stairs CS=Collective spaces
L=Living room K=Kitchen



12

Spaces and services

- Urban
- Suburban
- Dedicated internal common spaces
- Dedicated external common spaces
- Private external spaces
- Building's services and equipments
(common living rooms, study rooms, laundry, shared kitchen,...)

Neighborhood

- Proximity to residential areas
- Proximity to commercial areas
- Proximity to University
- Other services (e.g. shops, sports fields, nightlife)
- Connection with means of transport

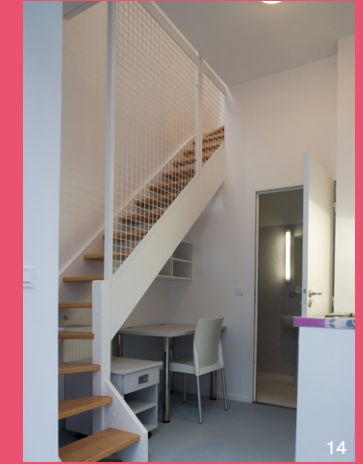
Student housing Rue de Ménilmontant

VIB Architecture
Paris, 2015

The building is placed in the historical neighbourhood of Ménilmontant and, even with its modern materials and shapes, it perfectly integrates the historic façades. The external part is used for the joint activities, while the mini apartments, disposed on two levels, are placed in the internal court that serves as a common space. All the shared services are placed on the ground level, in direct contact with the neighbourhood life.



13



14



15

fig. 12 External view of Student housing Rue de Ménilmontant
fig. 13 Hallways of Student housing Rue de Ménilmontant
fig. 14 Rooms of Student housing Rue de Ménilmontant
fig. 15 External view of Student housing Rue de Ménilmontant



16

Jægersborg Water Tower

*Dorte Mandrup Arkitekter
Copenhagen, 2006*

This student housing is an old water tower. It is the result of a public contest aimed at creating a recreational juvenile centre and some students' accommodations in order to requalify the suburban neighbourhood. The recreational juvenile centre occupies the first three floors of the building, then there are five floors with the students' mini apartments, and the last one with a laundry. The rooms are varied only in size, but they have all the same composition, with a piece of furniture that reunites a lofted bed, desk, wardrobe, and kitchenette. On the fourth and fifth floors, there are some community rooms characterised by big terraces.

Spaces and services

- Urban
- Suburban
- Dedicated internal common spaces
- Dedicated external common spaces
- Private external spaces
- Building's services and equipments
(common living rooms, study rooms, laundry, shared kitchen,...)

Neighborhood

- Proximity to residential areas
- Proximity to commercial areas
- Proximity to University
- Other services (e.g. shops, sports fields, nightlife)
- Connection with means of transport



fig. 16 External view of Jægersborg Water Tower

fig. 17 Room in Jægersborg Water Tower

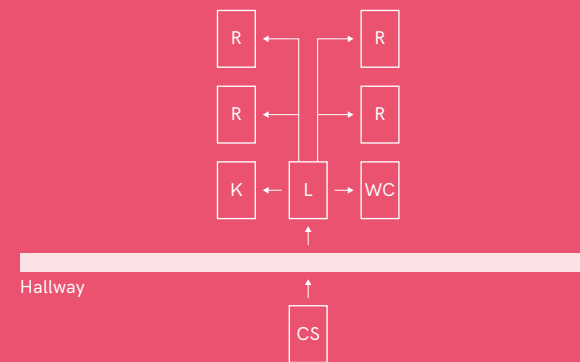
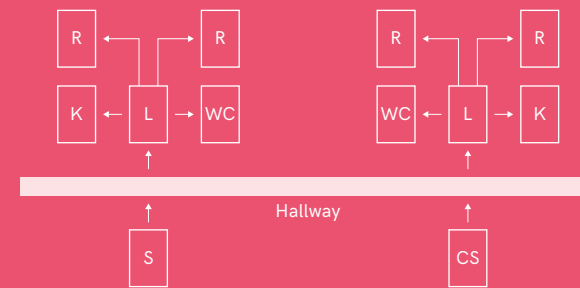
fig. 18 Room in Jægersborg Water Tower

18

The integrated nucleus model

The integrated nucleus model is composed of several single or double rooms disposed around a common kitchen and living room. It resembles a normal private apartment and is one of the best solutions that mediates between privacy and sociality since students can create an internal community or socialise with the other units.

06
Organisational and functional model of the integrated nucleus model



Legenda

R=Room WC=Bathroom S=Stairs CS=Collective spaces
L=Living room K=Kitchen



Student housing Poljane

Bevk Perovič Arhitekti
Ljubljana, 2006

The building is characterised by a big plate that hosts all the common areas and services. The private spaces are placed in two parallel volumes with different housing units organised in integrated nucleus. Each room has got a series of foldable aluminium shutters with a texture composed of holes. The shutters serve as acoustic insulation, but they also change every time the appearance of the façade making the dormitory visible by the neighbourhood.

Spaces and services

- Urban
- Suburban
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- Dedicated external common spaces
- Private external spaces
- Building's services and equipments
(common living rooms, study rooms, laundry, shared kitchen,...)

Neighborhood

- Proximity to residential areas
- Proximity to commercial areas
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- Connection with means of transport

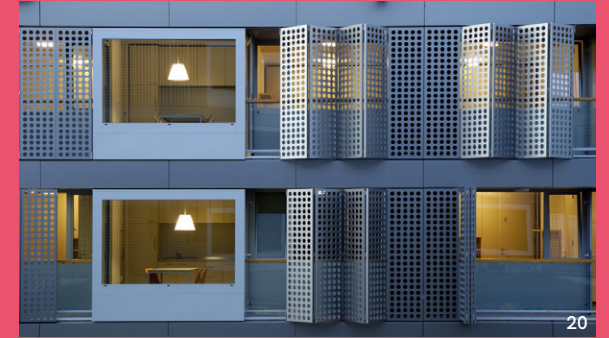


fig. 19 External view of Student housing Poljane
fig. 20 Detail of the foldable aluminium shutters of Student housing Poljane
fig. 21 Library of of Student housing Poljane
fig. 22 Hallways in of Student housing Poljane



New student quarters

Silvester Fuller & Tony Owen Partners
Chippendale, 2011

The building is characterised by a series of openings that resembles the structure of a canyon. Since, in this case, the dormitory is part of campus it has some functions, like the cafeteria, open to everyone and it is possible to have access to the common spaces of the residence from all the point of the perimeter. The structure is composed of accommodations with an integrated nucleus module, in order to use the space in the best way, all the single rooms face in the kitchen and dining area.

Spaces and services

- Urban
- Suburban
- Dedicated internal common spaces
- Dedicated external common spaces
- Private external spaces
- Building's services and equipments
(common living rooms, study rooms, laundry, shared kitchen,...)

Neighborhood

- Proximity to residential areas
- Proximity to commercial areas
- Proximity to University
- Other services (e.g. shops, sports fields, nightlife)
- Connection with means of transport



fig. 23 External view of New student quarters
fig. 24 External view of New student quarters
fig. 25 External view of New student quarters



Spaces and services

- Urban
- Suburban
- Dedicated internal common spaces
- Dedicated external common spaces
- Private external spaces
- Building's services and equipments
(common living rooms, study rooms, laundry, shared kitchen,...)

Neighborhood

- Proximity to residential areas
- Proximity to commercial areas
- Proximity to University
- Other services (e.g. shops, sports fields, nightlife)
- Connection with means of transport

Student housing Meander

DKV Architecten
Amsterdam, 2007

The dormitory is part of the Science Park Campus and, with its 716 accommodations, is one of the biggest student housing in northern Europe. The structure of the building resembles a river's course creating five full and empty spaces; three of them are gardens while the other two are paved and create micro urban squares. The solutions for the rooms vary according to the user's needs; there are accommodations for offsite students, rooms for teachers, and mini apartments for young researchers. Besides, the building provides social housing solutions with conventional solutions that provide two or three rooms or open spaces. Some rooms can also be rented by visiting professors that can choose the furniture and eliminate the feeling of living in student housing. The different solutions provide an enjoyable social mix, with all its facilities and shared spaces the Meander can be defined as a micro city.



fig. 26 Top view of Student housing Meander
fig. 27 External view of Student housing Meander
fig. 28 External view of Student housing Meander



Studentenwohnheim HHG

Fink+Jocher Architekten
München, 2005

The student housing is a few metro stops from the university campus. The structure was designed to satisfy the different needs of the users and reunites four mini apartments, two integrated nuclei, and one bigger mini apartment. Each room is furnished with furniture with wheels so that students can choose how to arrange the space. All the rooms overlook with a big window a walkway, place where most of the interactions happen, and an automatic curtain system allow the user to decide the desired level of privacy.

A metallic net covers the building with climbing plants that change the aspect of the dormitory according to the season and provides thermal comfort during summer.

Spaces and services

- Urban
- Suburban
- Dedicated internal common spaces
- Dedicated external common spaces
- Private external spaces
- Building's services and equipments
(common living rooms, study rooms, laundry, shared kitchen,...)

Neighborhood

- Proximity to residential areas
- Proximity to commercial areas
- Proximity to University
- Other services (e.g. shops, sports fields, nightlife)
- Connection with means of transport



fig. 29 External view of Studentenwohnheim HHG
fig. 30 External view of Studentenwohnheim HHG
fig. 31 External view of Studentenwohnheim HHG
fig. 32 Kitchen of Studentenwohnheim HHG

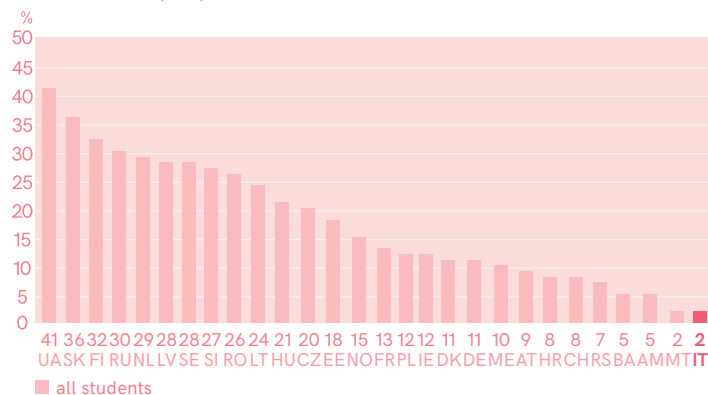
1.5 Student housing in Italy

Compared to the other countries Italy suffers from a lack of offer: the real-estate market is so strong, and the resources are so limited that the country occupies the last rankings in Europe for accommodations per capita (Baratta, 2012).

According to the Eurostudent report (Hauschildt et al., 2015) on *Social and Economic Conditions of Student Life in Europe in Italy*, only the 2-3% of students are living in student accommodation with a total of 35.000 accommodation places registered. Despite this fact, 75% of the people are satisfied with their housing. Also, Italy is one of the European countries with more students that live with their family while there are only a few ones that chose to live outside the family context.

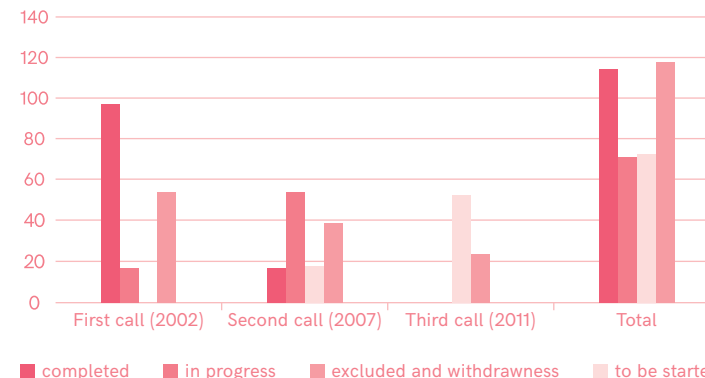
07
Students living in a student accommodation according to the Eurostudent Report

Students living in a student accommodation share of students (in %)



During the past years, the Italian government has tried to solve the situation with different measures. The most effective and significant one dates back to the 14th November 2000 with the introduction of Law no. 338³. The amendment involved public and private parties working in the sector; it provides a co-financing for specific projects regarding not only works on existing buildings but also expansion works and the creation and acquisition of new properties to create new dormitories or residences for university students. Among the 250 projects presented a good 60% involved the renovation of an existing building, to preserve the Italian cultural heritage, with this first financing 37.000 accommodations were created. In subsequent years (2002, 2007, 2011) three different public notices were published with 800 million of euros allocated by the State, to which it is necessary to add the founding from third parties

3. The text of the Law no. 338 can be found at the following link www.parlamento.it/parlam/leggi/003381.htm



08
State of progress in 2012 of the interventions relating to public notices I, II and III of Law 338/2000

reaching the amount of 1,5 billion euros (Baratta, 2012). Not all the projects that have applied for co-financing succeeded in having it, Law 338/2000 besides allocating founding and co-founding rewards projects that results coherent with the minimum requirements imposed by the Law. These last refer to the dimensional and minimum qualitative standards for the spaces, the equipment of the functional areas, the furniture, the services and the technical performances of the building (Bellintani et al., 2016).

Creating attractive and innovative dormitories is the challenge that Italy has undertaken in the last eighteen years, and that is still a work in progress.

1.6 The framework of the Milanese area

Milan is the second Italian university town after Rome. In 2010 it was possible to count around 210.000 people involved in the system comprising students, professors and administrative and technical staff. Even so, it is not possible to define the city as a university town mainly for two reasons (Balducci et al., 2010). The first one is that all the universities on the territory were founded between the middle of the 18th century and the beginning of the 19th century, resulting in a relationship with the city that is quite recent. Nonetheless, they are deeply rooted and have a strong bond with the city. The second reason lies in the nature of the territory. We need only to think of the interpretation that the Institutions give to the Milanese territory. As a matter of fact, over many years, it is impossible to think to the city of Milan as separate to the other Lombard cities since many processes and activities bond them together. The major part of the eleven Milanese Athenaeum has a headquarter

in another city, creating an interaction with a broader urban region. In this sense, it is possible to talk about *a city of the studies* or *a city of the Universities* more than a university town (Balducci et al., 2010).

During the period 2016/2017⁴ Milan had counted 189.456 enrolled students in its universities, with the 46,6% of offsite students which represent a higher percentage compared to 2010 (Balducci et al., 2010) when only the 22% came from outside Lombardy.

Among the strategies that the Universities have adopted there is the internationalisation matter. This last considers two hospitality methodology, the first one with the permanent enrolment, and the second one with a temporary enrolment in the form of an exchange. The strategies have proven to be successful since in 2017/2018 is possible to count the 8% of foreigner students against the 4,1% in 2010.

The arrival of many foreigner students means that there is the necessity of structures and services able to host them and offer the best performances. Compared to other cities in Italy Milan has been able to provide a prompt answer to these needs. The first incentive came from the Comune di Milano in 2005 with the *Delibera Verga* in which some areas of the city were made available for social housing projects, among them there were also student housing (Catalano & Francalanci, 2010). Later, in 2007, there was a memorandum of understanding between Politecnico di Milano and Bicocca for the reuse of abandoned school building to transform in dormitories. Thanks to the contribution of the Regione and its calls for student housing projects in 2010 there was an increase in the accommodation of +71,9%. Even so, the number of accommodations is smaller compared to the other European countries, forcing the students to consider the real estate market or to commute between one city and another.

One possible solution to improve the diffusion of dormitories is the integration with other kinds of temporary housing such as one of the workers without residence in Milan, single mothers and all the other categories with financial difficulties. This action might increase the management level and create new interesting interaction between different city users.

4. Data come from Anagrafe Nazionale Studenti MIUR. Retrieved from anagrafe.miur.it/php5/home.php?&anni=2016-17&categorie=cittadin&status=iscritti&po_corso=TT&code_fas_citt=2

189.456

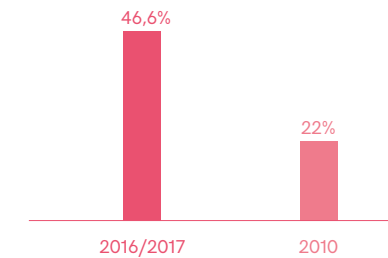
Enrolled students in Milan in 2016/2017

+71,9%

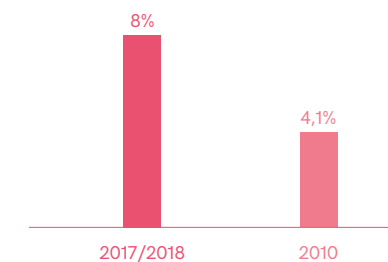
increase of the accommodation since 2010

09
Some numbers on the
internationalisation of
Milan

% of offsite students in Milan



% of foreigner students in Milan



2.1 Universities as brands

Universities are educational institutions which spaces and services answer the academic needs of their users. Thanks to the plurality of elements that compose their offer, they can be identified as complex systems and, as such, they carry with them material and immaterial aspects. Material aspects refer to all the *products* like the academic program, the accommodations, the scholarships, and so forth. Immaterial aspects, contrary to what everyone may think, are not linked to services but are mainly connected to the values that the institution can guarantee. These values are usually associated with the name (*brand name*) and an image or a logo (*brand mark* or *brand image*) that are immediately recognisable and differ from the others. Name and logo are the main components of a *brand* that becomes a part of the system and an *attribute* of the *products* (Deserti, 2001). From this perspective Universities can be considered brands that need to construct and obtain a high level of brand awareness, that is the capacity of being recognised, through the design of identity, taking care of the emotional aspects, the values, and the characteristics of their products and services. By doing so, the resulting *image* of the institution, regardless its heterogeneity, reveals to be unified (Muneratto, 2007). The fact that the institutions deal with education, which is intangible, and with different stakeholders that they need to engage with make branding a fundamental step (Rutter et al., 2016).

The idea of creating a brand image that is as strong and articulated as the one of a common brand is deep-seated in America more than in Europe or Italy. There are many studies and trials which are trying to understand if the presence on social media, rather than a well-structured image can impact on the recruitment performance or the feeling of belonging of the students. With some reservations and critics, the studies are revealing the increasing importance of branding in the educational sectors, showing that the Millennial generation welcomes these new communication paradigms and expect direct and fast interaction with the University.

All these observations lead to a new aspect that Universities need to consider, the limitless and articulate world of communication.

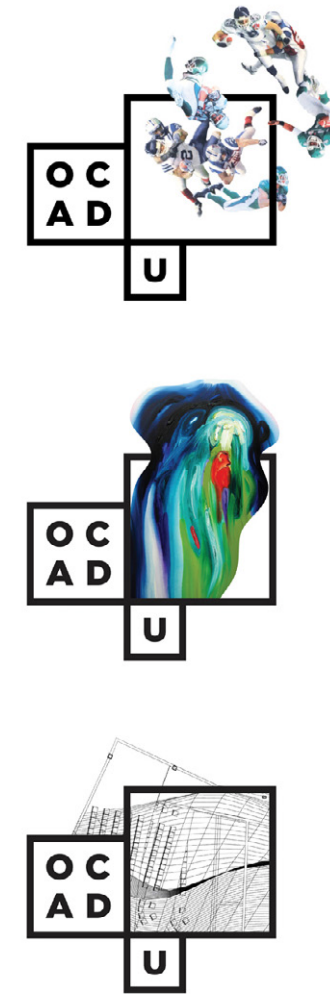


fig. 33 Rebrand for OCAD University, Canada, done in 2011 by Bruce Mau Design. The generative logo is designed like an art gallery, featuring an ever-changing stockpile of student art and design.

2.2 New communication paradigms for Universities

Although digital media represent only a small part of the communication field, their introduction has completely changed the way in which we communicate.

In the past, people could experience only two paradigms of communication: one-to-one and one-to-many. The first one refers to a discussion that takes place between two people; an example can be a conversation on the phone or an exchange of emails. While the second one refers to one speaker that can reach, in a single time, many listeners, typical examples of this way of communicating are the television, the radio, and the newspaper. Brands used to exploit these last communication's means to advertise their products and services. People could only listen to the message and, if it convinced them, buy the product and even if the purchase resulted in being of poor quality, they could not directly get in contact with the company.

The advent of the web and the digital media has created the new communication paradigm of many-to-many, the network represents an environment where people can discuss, share, and exchange information, opinions, ideas with each other freely and without limits.

The world is completely changed for brands, which need to learn new rules to survive, rules that are strictly dependent on the ability to listen to the users. Nowadays being capable of selling a product or a service means succeeding in maturing a relation with the audience. The establishment of this connection requires five intermediate steps: listening, engagement, retention, conversion, and monitoring. All the brands that were able to listen succeed in creating products and services that are meaningful to their users and in building a strong relationship based on trust and loyalty.

In the last decade, the concept of branding and the phenomenon of social media have also invested the Higher Education Institutions: "Social media increasingly represents an important part of a brand's communication strategy. Online advertising is relatively inexpensive, and recent literature suggests that whereas once social media (wikis, blogs, and other content sharing) was an afterthought to brands, now social media represents a phenomenon which can drastically impact a brand's reputation and in some cases survival"(Rutter et al., 2016, p. 1).

The necessity for branding is not only due to the changing in lifestyle and technology but also to the presence of lots of competitors fighting for the highest places of universities

ranking (Pharr, 2016). Thus, there is the necessity to "develop a competitive advantage based on a set of unique characteristics"(Khanna et al., 2014, p. 124) which, in turn, need to be communicated consistently to the stakeholders. We are moving towards different ways of communicating and searching information (Cannon, 2015); for instance, alumni and professors use social media to stay in contact and share materials, while undergraduates search on the different socials posts that can reveal something about the spaces and the education provided. Through, an accurate and well-studied strategy Universities, can easily reach their audience, create brand awareness, recruit undergraduates, and create a community.

The most common social media used by higher education are *Twitter* and *Facebook* (Rutter et al., 2016), the first one because can establish a dialogue between the university and the stakeholders, a back-and-forth that can create new relations with the external world. The second one that attracts a varied audience and serves more as a display of the offer.

Since education has been defined as an *experiential service*⁵ (Khanna et al., 2014) it is clear that thinking only to digital communication is reductive; nonetheless, it is an important factor affecting the reputation and value that a university can convey.

2.3 The communication system of a student housing

Student housing is one of the primary products of a university. They represent the capacity of a university to be open and able to accommodate the academic population coming from different regions of the same country or from abroad; thus, they become one of the leading indicators of the innovation level of an institution.

Dormitories are not only strategic products but also system within the system. Their articulated offering map and stakeholder map makes them subsets that need to be analysed as separately before relating them with the bigger picture.

In the first chapter spaces, functions, and services were mainly investigated, while in this part the discussion will move on the communication front. The environmental aspects need to be supported by messages that can be digital or analogical and come from different senders; furthermore, the presence of numerous and diverse stakeholders in the system requires a high level of organisation of the communicative process.

The analysis will focus on the dormitories of Politecnico di

5. "Experiential services are services where the focus is on the experience of the customer when interacting with the organisation, rather than just the functional benefits following from the products and services delivered" (Voss & Zomerijk, 2007, p. 6)

Milano (PoliMi) which represent the centre of attention of this thesis. Observing the stakeholders map is possible to identify four main macro groups the users, the staff, the Institution, and all the external stakeholders. Users are all the people that reside in a dormitory, this group also includes families since, thanks to the guest rooms, they can stay inside the structure. This category strongly interacts with the staff one that reunites all the people working within the dormitory. Users and staff, in turn, have an interaction with the Institution, where is possible to find all the offices and organisation that work to improve the residences' life. Lastly, there is the macro group of the external stakeholder, made of all the actors that support administratively and financially the student housing. It is clear that the communication within and between this sets are varied and require diverse instruments.

In the following paragraphs, a first attempt of clustering the communicative process will be provided, dividing the communication into two macro categories named *internal communication* and *external communication*. The first one refers to the exchanges that involved the actors living inside the structure of the student housing while the second one concerns the world outside the building.

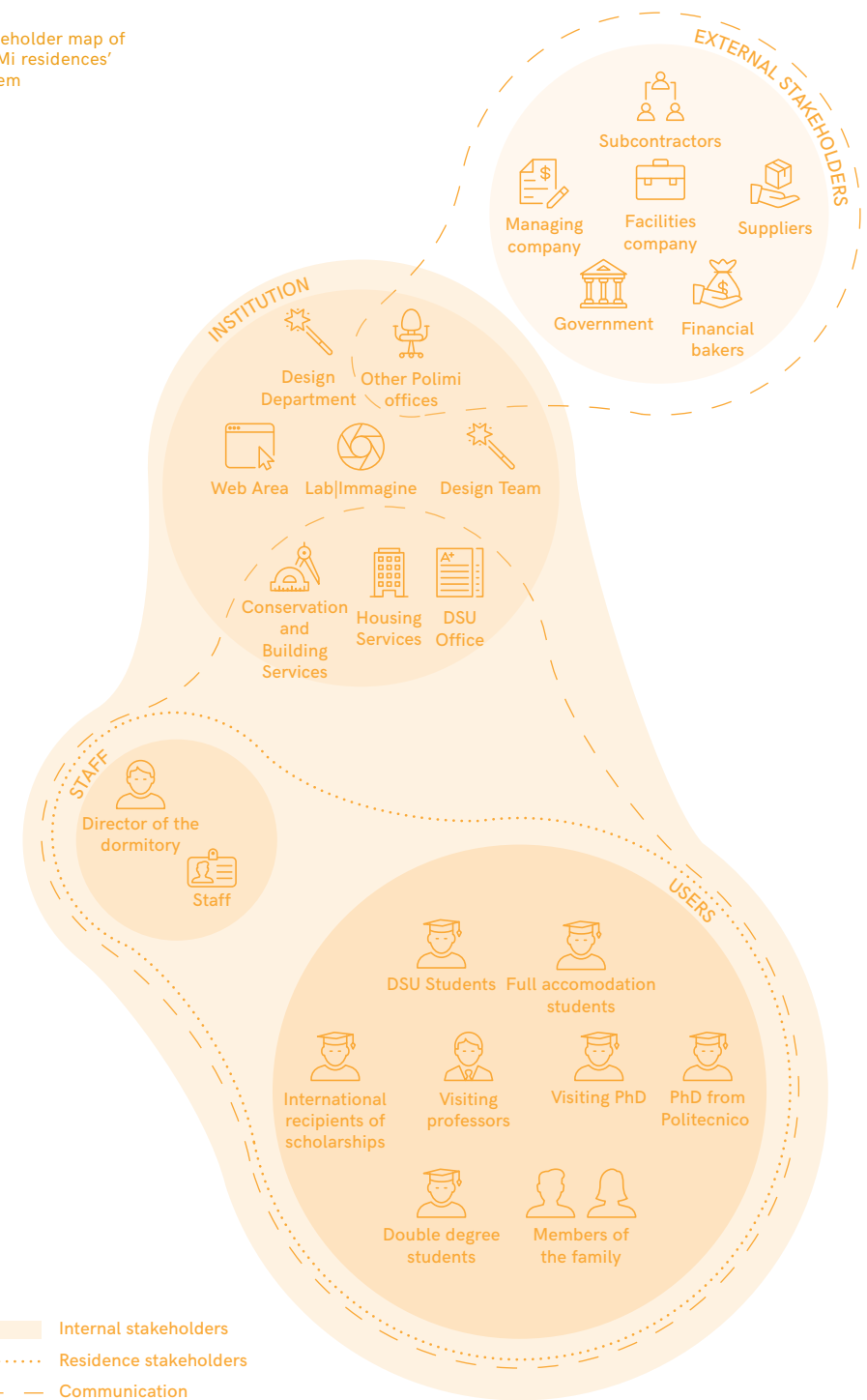
2.4 Designing the internal communication

The internal communication considers all the tangible, intangible, and digital elements that contribute to providing experiences and information within or about the dormitory.

The typical interactions that take place concern the students and the staff, along with interacting with the people belonging to the same group, they communicate with each other using different tangible and intangible means. In this relation also the institution participate by getting in contact both with the staff or directly with the students, to provide urgent notices about the dormitory or to welcome the newcomers. Doing some math is possible to count six different types of internal communication: student to student, student to staff and vice versa, staff to staff, staff to Institution and vice versa, and student to Institution and vice versa.

This list considers only relations between human beings; thus, the building itself, through effective design of its communication, can provide itself a set of experiences and information. An example could be the presence of a wayfinding system that can translate the functions into recognisable

10 Stakeholder map of PoliMi residences' system

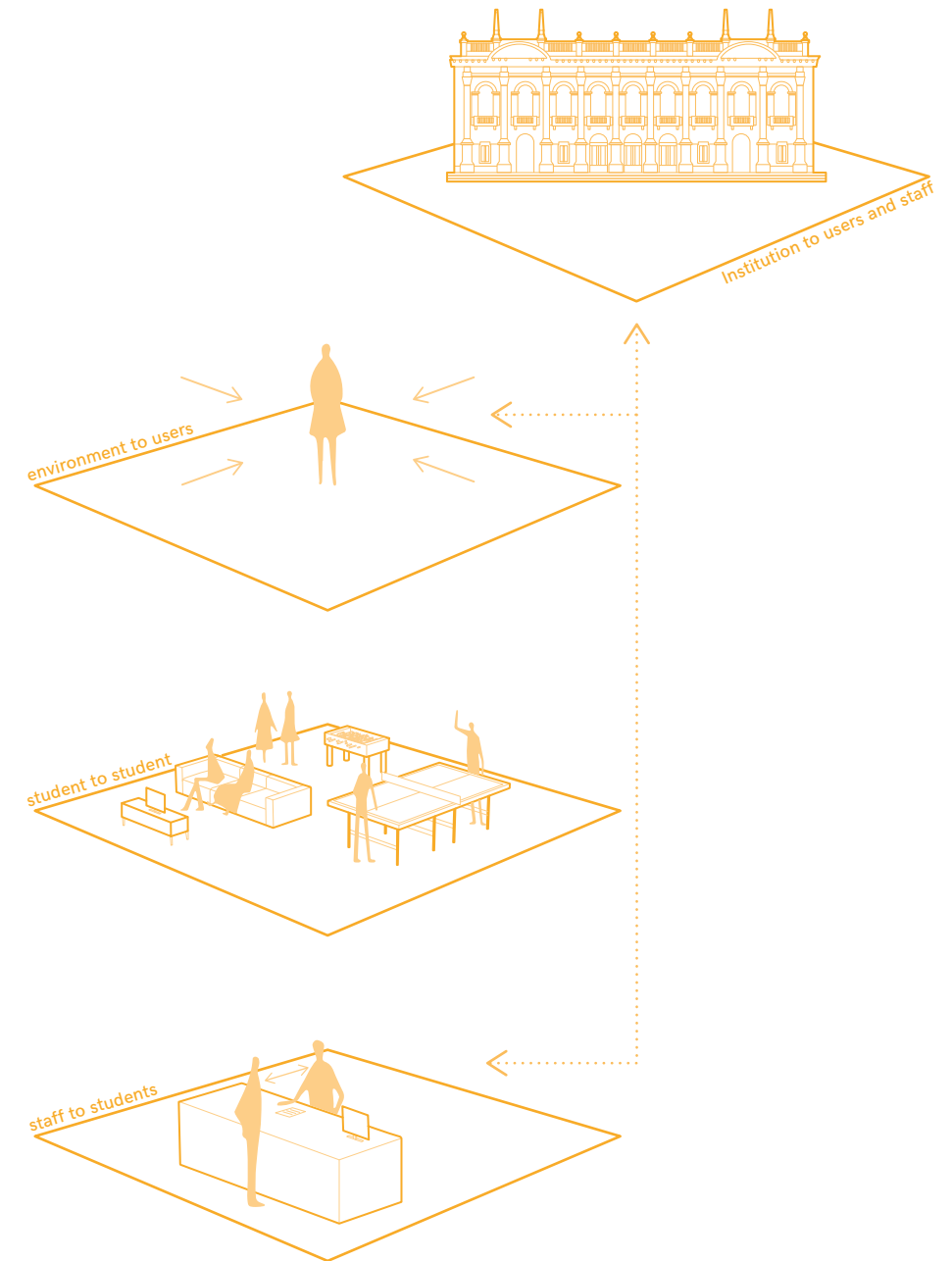


graphics that are understandable by everyone (Bauer & Mayer, 2009).

As far as the internal communication is concerned it is possible to affirm that PoliMi dormitories have not a high degree of innovation. For instance, the analysis of Isaac Newton Residence⁶ revealed that students communicate and organise activities using mainly *Facebook* or *Whatsapp* groups or just word of mouth. On the other hand, the staff is used to communicate or face to face or with papers that can be found attached to furniture or, for urgent messages or organisation of events, inside some bulletin boards that can be found in the dorm. Only the communication with the institution works better and exploits emails or the online services platforms.

For their part, these methods are working, but they are not reflecting the level of innovation or the image that PoliMi wants to convey. The same also applies to the environment that completely lacks an own communication, frequently resulting in anonymous buildings both from the inside and the outside.

Other countries, with a higher degree of innovation when it comes to student housing, have adopted simple and practical solutions to solve the different issues of the internal communication. The following case studies illustrate different levels of a successful internal communication and the intersection among them, highlighting their strongest points.



11
Scheme of the internal communication

⁶. Isaac Newton Residence is one of the Milanese dormitories of PoliMi, located a few steps away from San Leonardo metro station, on the red line, in the Gallarate neighbourhood. The Residence is a massive building of six floors that underwent an extensive refurbishment in recent years. It was the subject of the PSSD Environmental Studio that will be further explained in the next chapter.

Tietgen Dormitory

Lundgaard & Tranberg Architects
Copenhagen, 2005



More than being an example of communication, the Tietgen Dormitory⁷ is an example of how the architecture of the space can act as a facilitator for the creation of an internal community.

It has a strategic position in a new neighbourhood Ørestad North near the University building. Its circular form is an urban response to the context as well as a strategic shape where private and shared spaces intersect. The structure is organised in five sections with 12 rooms disposed around a communal area and a kitchen, while all the shared facilities are placed on the ground floor. Tietgen dormitory acts as a community facilitator since in the inner part of the building is possible to find a big courtyard where all the common areas of the different sections are facing. By balancing the individual sphere with the collective one Tietgen allows its students to deeply bond and create an active community.

“You feel a sense of community across the kitchens, not because you necessarily know them but because you can see them across the circle. If I see a party going on somewhere in the building, I would definitely consider going over there. You feel welcome everywhere in the building.” Nicolas, resident⁸.



fig. 34 External view of Tietgen Dormitory

fig. 35 Internal courtyard of Tietgen Dormitory

fig. 36 Internal courtyard of Tietgen Dormitory

fig. 37 Shared kitchen inside the Tietgen Dormitory

7. Tietgen Dormitory / Lundgaard & Tranberg Architects. (2014, February 7). Retrieved from www.archdaily.com/474237/tietgen-dormitory-lundgaard-and-tranberg-architects/

8. Living at Tietgenkollegiet | Tietgenkollegiet. (n.d.). Retrieved from tietgenkollegiet.dk/en/living-at-tietgenkollegiet/

Bikuben Student Residence

AART Architects

Copenhagen, 2005



This is an example of a dormitory in the same city as the previous one, even in this case the architectural structure helps the meeting of private and public spaces. Even if it appears as an enormous cube, the Bikuben⁹ has a double helix structure where all the kitchens and common areas are oriented toward an inner courtyard. Its architecture allowed it to win the Copenhagen Municipality Building Award 2007 thanks to its contribution in enriching the urban space.

Compared to the Tietgen dorm it provides more services to the students, starting with the fact that every room is single, and it has a little private kitchenette in it. What is interesting to mention about this Dormitory it is the active community that lives inside it¹⁰, the dorm has its own private Facebook group which contains all the events happening inside for its community members, and it also has several committees where all the students are strongly recommended to participate. From the website, it is visible the log-in area where students can access the dormitory services and updates. This is a noteworthy example of how a dormitory can create excellent internal communication by relying on the internal community and the power of the space.

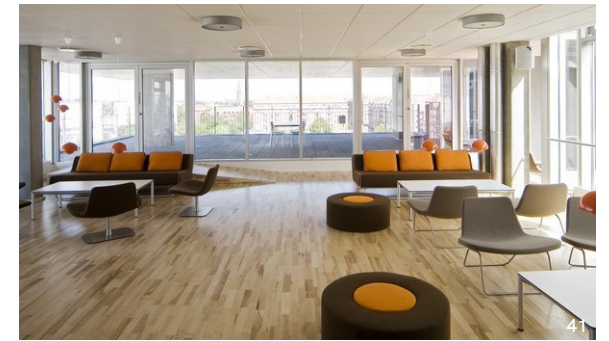


fig. 38 Entrance of Bikuben Student Residence

fig. 39 External view of Bikuben Student Residence

fig. 40 Shared kitchen inside the Bikuben Student Residence

fig. 41 Common spaces of Bikuben Student Residence

9. Bikuben Student Residence. (2012, June 4). Retrieved from aart.dk/en/projects/bikuben-student-residence

10. Gryesten, J. R., Mundy, S. S. (2014, February 9). Dorms Disclosed: Bikuben Kollegiet. Retrieved from uniavisen.dk/en/dorms-disclosed-bikuben-kollegiet/

Ryerson University Student Learning Centre

Snohetta and Zeidler Partnership

Architects

Toronto, 2015



The building¹¹ is conceived as a library without books, and the inner and outer space is designed so that interactions between people can happen naturally and spontaneously. Each of the eight floors has a unique design inspired by a natural theme; this is also reflected in the wayfinding system that follows the colour and the feeling of each floor. For these reasons, this last case study is strictly connected to the theme of communication between the building and the people; by having a recognisable environment the architecture and the environmental communication silently reassure and welcome the user.

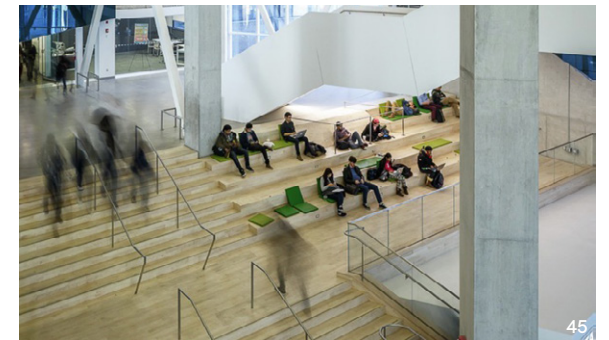


fig. 42 External view of Ryerson Learning Centre

fig. 43 Common spaces of of Ryerson Learning Centre

fig. 44 Study room of Ryerson Learning Centre

fig. 45 Main entrance of of Ryerson Learning Centre

11. Ryerson University Student Learning Centre. (n.d.). Retrieved from snohetta.com/project/250-ryerson-university-student-learning-centre

2.5 Designing the external communication

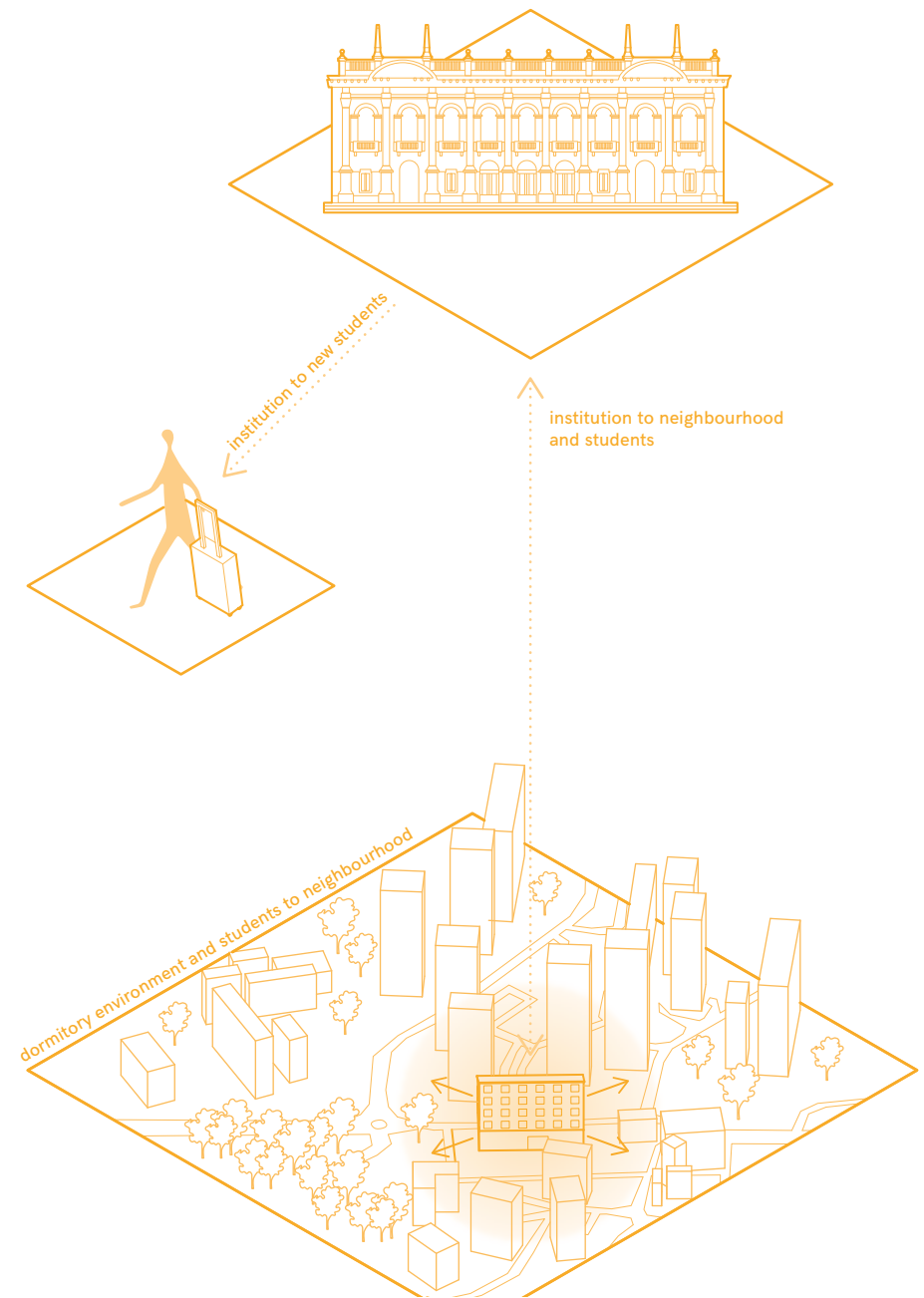
The external communication considers all the tangible, intangible, and digital elements that contribute to providing experiences and information outside the dormitory. Which means all the interactions that involve stakeholders that have not necessarily to deal directly with the dorm, but that can be interested in it.

Compared to the internal communication it is more difficult here to have a precise list of interplay. Outside the building of a dormitory, there are people from the neighbourhood, different associations, and then the city. Things here start to get more complicated, communicating with a neighbourhood and, consequently, with its organisation request a more significant effort and a qualitative and suitable means for doing that. This last can be physical, digital or both but it has for sure to be well designed and administrated. In this case, the Institution has a harder job; it has to understand the environment and find the right way to interact with it. Here we are not only talking about organising events but even highlighting in the right way the presence of a University dorm inside the neighbourhood and open its doors to it. For instance, in Newton Residence external people cannot enter inside the dorm without a student invitation, and, even in this case, the numbers of people allowed to enter is very limited because of safety reasons. The spatial and communication discontinuity between the neighbourhood and the residence makes the latter almost unknown from the rest of the people and some of them don't even know that the building is a Politecnico Dormitory.

The external communication is not limited to the neighbourhood, but it also includes the first contact with new residents before their arrival in the structure or the involvement of students that may want to apply for accommodation.

Compared to the engagement with the neighbourhood this last communicative side is reasonably achievable. In this case, the Institution need to inform the users and their family of all the possibilities and services, providing the right parameters that can enable an informed choice. This kind of communication is very close to an advertisement, a way to outperform other student housing.

As in the paragraph before the case studies provide virtuous examples of different aspects of what it has been defined external communication.



12
Scheme of the external
communication

CampUs¹² is a research and action project of Politecnico di Milano begun in 2015 with the aim of connecting the academic spaces and skills with the territory. The project creates a system composed of four initiatives: a neighbourhood vegetable garden, a social TV, an itinerant pavilion, and a research on the economic sustainability and scalability of these activities.

This project perfectly explains how a university can open its spaces to the neighbourhood and exploit knowledge and competencies to meet people's needs. Dormitories should be able to perform the same action, creating projects and events able to meet the needs of the students and the territory.



fig. 46 CampUs project

12. www.progettocampus.polimi.it/progetto/

A four minutes video¹³ shows two cute young guys from the Central International Office presenting all the available student housing in Den Haag area. Here are not only explained all the facilities and services provided but also their distance from the Campus taking the bus or the transportation, and even all the attractions and services (such as the supermarket) that are available in the area. This video produced by Tu Delft represents an excellent, immediate and fast way to communicate initial and precious information to the exchange students that are searching for accommodation. With a simple tool, they have proven to take care of the necessity of their future students.



fig. 47 TU Delft video

fig. 48 TU Delft video: indication of the distances from housing facility to the campus

13. TU Delft. (2015). TU Delft student housing Den Haag. Retrieved from www.youtube.com/watch?v=Re4EY7qvkQ

Drexel University Online Acceptance Kit

Drexel University
Philadelphia, 2015



49

Drexel University in partnership with the designer Anne Reilly Toal, the art director Patrick Hennessy, the copywriter Steve Whisler, and the printing company PFM Group designed a Welcome Kit¹⁴ for the online learners. The kit aims to make the online students feel welcome and part of the community as the on-campus ones.

"Drexel's unique dragon mascot inspired the kit's theme. The booklet was positioned as a field guide to help students through their transition into becoming a dragon as they embark on a journey to further their education. A personalized letter from the Dean welcomes the student and the field guide provides tips and resources for studying online, while the notebook, candy and stickers act as keepsakes and fun ways to show Drexel pride and remind accepted students to complete their enrolment"¹⁵.

This example represents an effective use of a simple tool that helps to provide a positive initial experience and make the future student feel welcome in the new environment.



50



51



52

fig. 49 The box of the Drexel online acceptance kit

fig. 50 Opening of the Drexel online acceptance kit

fig. 51 Contents of the Drexel online acceptance kit

fig. 52 Tips for the students of the Drexel online acceptance kit

14. Tracy, J. (2015). Drexel University Online Accepted Students Kit. Retrieved from www.thedieline.com/blog/2015/7/21/drexel-university-online-accepted-students-kit

15 Toal, A. R. (2015). Drexel University Online Acceptance Kit. Retrieved from www.annereillytoal.com/dragon-kit.

Designing for the student housing of Politecnico di Milano

Even though Italy is far from the rest of European standards, many Italian cities are trying to improve the students' accommodation situation. Among these last there is Milan. In this chapter, the housing offer provided by the thirteen public and private Athenaeums will be analysed and compared, with a final focus on the situation of PoliMi.

3.1 Student housing in Milan

Europe is becoming more and more an attractive destination for foreigner students. Among the numerous countries Italy position itself amidst the nations able to provide better opportunities for students; besides, Milan, together with other European cities and capitals, appears to be one of the cities with more international students (Kolibar, 2018). Furthermore, the Regional County Seat hosts lots of students coming from other regions and the same territory. To answer this high demand, the city counts thirteen public and private Athenaeums. To understand better the services that each university is providing to its students is possible to operate a subdivision among them.

The first category is represented by the *historical and state universities*, respectively *Cattolica*, *Statale*, *Bicocca*, and *PoliMi*. The first two belong to the historic city and were able to establish a strict relationship with the context; while the last two are farther from the centre and are trying to create bonds with the different neighbourhoods.

Besides state universities is possible to find the *private Athenaeums* of *Bocconi*, *San Raffaele*, *Iulm*, and *Humanitas University*. Their strategies consider strengthening the international profile of the offer, to attract students and researchers from abroad. For this reason, they are trying to expand themselves in the urban area.

Finally, the last category is represented by the *creative universities and academies* which can be both state or private: *Brera Academy*, *Naba*, *Ied*, *Domus Academy*, and *Marangoni*. They represent the maximum lure for foreigners' students, that are attracted by the Italian design.

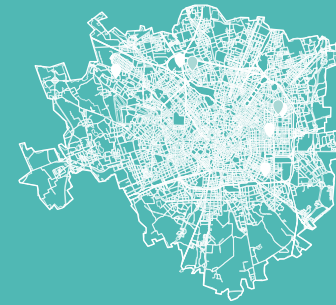
This different offer demands a high level of organisation to Universities, which need to be able to provide accommodations if not to all at least to some students. In the supplementary worksheet that follows is possible to find all the student housing of the universities, together with the use of the web and the socials that serves as a channel to promote the structures. Also, it will be possible to examine in depth the private student housing and the initiatives and platforms on whom the Athenaeum relies to expand their offer.



Universities Dormitories Aler apartments

13
Milanese universities and their
dormitories

Focus: Student housing of the Milanese Athenaeums



- Campus Milano Leonardo/ Bovisa
- Como Lecco
- Piacenza Mantova

State university

Politecnico di Milano

PoliMi is a scientific and technologic university founded in 1863. It covers three studies areas: engineering, architecture, and design. The university has two headquarters in Milano, respectively in Milano Leonardo and Milano Bovisa; and other five in Como, Cremona, Lecco, Mantova, and Piacenza. The housing accommodation offered by PoliMi are five in Milan, and one respectively in Como, Lecco, Mantova, and Piacenza.

**Casa dello
Studiante Leonardo
Da Vinci**
Viale Romagna, 62
Milano

Organisational model:
Hotel model

single and double
rooms

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



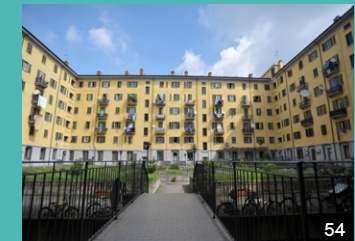
53

Dateo
Piazzale Dateo, 5
Milano

Organisational model:
Mini apartment

shared apartments
with single and double
rooms

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



54

This focus analyses the student housings of the Milanese Universities. Providing, for each of these, the offered spatial services, the alternative opportunities and partnerships, and the web and social activities concerning the student accommodations.

Isaac Newton
Via Mario Borsa, 25
Milano

Organisational model:
Hotel model

single and double
rooms

- Study room
- Library
- Laundry
- Ironing area
- Gym
- Cafeteria
- Canteen
- Tv area
- Living area
- Play room
- Kitchen
- Auditorium
- Wi-fi
- Bike parking
- Car Parking



55

La Presentazione
Via Zezio, 58
Como

Organisational model:
mixed

studio apartments
and single and double
rooms

- Study room
- Library
- Laundry
- Ironing area
- Gym
- Cafeteria
- Canteen
- Tv area
- Living area
- Play room
- Kitchen
- Auditorium
- Wi-fi
- Bike parking
- Car Parking



58

Vilfredo Pareto
Via Maggianico, 6
Milano

Organisational model:
mixed

studio apartments
and single and double
rooms in integrated
nucleus

- Study room
- Library
- Laundry
- Ironing area
- Gym
- Cafeteria
- Canteen
- Tv area
- Living area
- Play room
- Kitchen
- Auditorium
- Wi-fi
- Bike parking
- Car Parking



56

Adolf Loos
Via Ghisaloni, 24
Lecco

Organisational model:
mixed

studio apartments
and single and double
rooms

- Study room
- Library
- Laundry
- Ironing area
- Gym
- Cafeteria
- Canteen
- Tv area
- Living area
- Play room
- Kitchen
- Auditorium
- Wi-fi
- Bike parking
- Car Parking



59

Einstein
Via Einstein, 6
Milano

Organisational model:
mixed

studio apartments
and single and double
rooms in integrated
nucleus

- Study room
- Library
- Laundry
- Ironing area
- Gym
- Cafeteria
- Canteen
- Tv area
- Living area
- Play room
- Kitchen
- Auditorium
- Wi-fi
- Bike parking
- Car Parking



57

Web and social activities

- Dedicated website
- Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



60

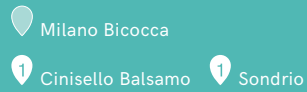
The residences' website shows the main info about each dormitory on the territory



State university

Biccocca

Biccocca was founded in 1998. It covers three studies areas: economy, statistics, and science. The university has one headquarters in the neighbourhood of Biccocca. The housing accommodation offered by UniMiB are five in Milan, and one in Sondrio.



U12
Via Vizzola, 5
Milano

Organisational model:
Hotel model

single and double
rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input checked="" type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input checked="" type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



U22
Via Mantova, 75
Milano

Organisational model:
Mini apartment

shared apartments
with single and double
rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|---------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input type="checkbox"/> Tv area | <input type="checkbox"/> Living area |
| <input type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



Ponale U72
Via Ponale, 66
Milano

Organisational model:
mini apartment

single and double studio
apartments offered in
collaboration with Aler

- | | | |
|-------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> Study room | <input type="checkbox"/> Library | <input type="checkbox"/> Laundry |
| <input type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



Giò Ponti (U92)
Via Gustavo Modena, 36
Milano

Organisational model:
hotel model

single and double
rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



Breme-Forno U62
Via Martinelli, 44
Cinisello Balsamo,
Milano

Organisational model:
hotel model

single and double
rooms

- | | | |
|--------------------------------------------------|--------------------------------------------------|---------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input type="checkbox"/> Living area |
| <input type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input checked="" type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



Agreements and other opportunities

Agreements

- In-Domus
- Il Collegio di Milano
- Rete Camplus
- Meglio Milano
- Fondazione Rui

Other opportunities

Centro maschile Artigianelli

Via Magenta, 4

Monza

- | | | |
|--------------------------------------------------|--------------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input checked="" type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input checked="" type="checkbox"/> Gym | <input type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input checked="" type="checkbox"/> Bike parking | <input checked="" type="checkbox"/> Car Parking |

Organisational model:
Hotel model

double rooms

Residenza femminile Svevo

Via Medici, 33

Monza

- | | | |
|--------------------------------------------------|--------------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input checked="" type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |

Organisational model:
Hotel model

single rooms

Facebook and Twitter
Different posts on the
scholarship's ranking
list, and on the news
concerning dormitories



67



68

Web and social activities

- Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



YouTube
U62 inauguration day
on Bicocca YouTube
channel. It is possible
to find other videos of
newscasts about the
residences.



- La Statale main department
- Lodi
- 59 Aler apartments

Historical university

La Statale

The University of Milan, also known as La Statale, was founded in 1923. It is focused primarily on four areas: economics, law and social sciences; humanities; medicine and healthcare; and science. The University's departments are housed in magnificent historic edifices, and the main one is right in Milan city centre.

The housing accommodation offered by UniMi are five in Milan, and one in Lodi. In Milan, the Institution also has fifty-nine apartments with Aler Milano.

Bassini
Via Bassini, 36/38
Milano

- Organisational model: Hotel model
- single and triple rooms
- Study room
 - Library
 - Laundry
 - Ironing area
 - Gym
 - Cafeteria
 - Canteen
 - Tv area
 - Living area
 - Play room
 - Kitchen
 - Auditorium
 - Wi-fi
 - Bike parking
 - Car Parking



69

Plinio
Via Plinio, 44
Milano

- Organisational model: Hotel model
- single and double rooms
- Study room
 - Library
 - Laundry
 - Ironing area
 - Gym
 - Cafeteria
 - Canteen
 - Tv area
 - Living area
 - Play room
 - Kitchen
 - Auditorium
 - Wi-fi
 - Bike parking
 - Car Parking



70

Santa Sofia
Via Santa Sofia, 9
Milano

- Organisational model: Hotel model
- single, double and triple rooms
- Study room
 - Library
 - Laundry
 - Ironing area
 - Gym
 - Cafeteria
 - Canteen
 - Tv area
 - Living area
 - Play room
 - Kitchen
 - Auditorium
 - Wi-fi
 - Bike parking
 - Car Parking



71

Ripamonti
Via Sforza, 6
Milano

- Organisational model: Hotel model
- single and double rooms
- Study room
 - Library
 - Laundry
 - Ironing area
 - Gym
 - Cafeteria
 - Canteen
 - Tv area
 - Living area
 - Play room
 - Kitchen
 - Auditorium
 - Wi-fi
 - Bike parking
 - Car Parking



72

Canzio
Via Canzio, 4
Milano

- Organisational model: Hotel model
- single and double rooms
- Study room
 - Library
 - Laundry
 - Ironing area
 - Gym
 - Cafeteria
 - Canteen
 - Tv area
 - Living area
 - Play room
 - Kitchen
 - Auditorium
 - Wi-fi
 - Bike parking
 - Car Parking



73

Aler Apartments
Calvairate/Città Studi
Milano

Organisational model:
mini apartment

single and double studio
apartments offered in
collaboration with Aler

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking

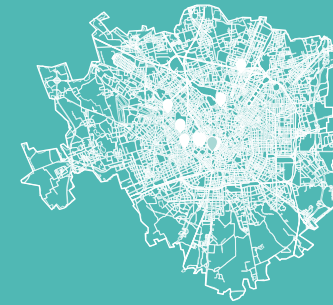


Web and social activities

Information on the
institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



- Cattolica del Sacro Cuore
- Piacenza
- Brescia

Historical university

Cattolica del Sacro Cuore

Cattolica del Sacro Cuore is a Catholic university founded in 1921. It focuses on twelve areas: economics; economics and law; law; arts and philosophy; medicine and surgery; psychology; agriculture, food and environmental sciences; banking, finance and insurance sciences; education; linguistic sciences and foreign literatures; mathematical, physical and natural sciences; political and social sciences. The headquarter of the Cattolica is right in the city centre.

The housing accommodation offered by the university are four boarding schools and four residences in Milan; one boarding school and one dormitory in Piacenza; and three residences in Brescia.

Collegio Augustinianum
Via Necchi, 1
Milano

Male Boarding School

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



Collegio Ludovicianum
Via San Vittore, 35
Milano

Male Boarding School

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



76

Collegio Marianum
Via San Vittore, 18
Milano

Famale Boarding School

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



76

Collegio Paolo VI
Via Verga, 9
Milano

Famale Boarding School

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



77

Orsoline
Via Martignoni, 8
Milano

Organisational model:
Hotel model

single and double
rooms

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



78

Stimmatine
Via Maroncelli, 28
Milano

Organisational model:
Hotel model

single and double
rooms

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



79

Buonarroti
Piazza Buonarroti, 30
Milano

Organisational model:
Hotel model

single rooms

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



80

Notre Dame
Viale Vigliani, 51
Milano

Organisational model:
Hotel model

single and double
rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input checked="" type="checkbox"/> Car Parking |



81

Agreements and other opportunities

Agreements

- In-Domus
- Rete Camplus
- DotStay
- Roomtastic
- Gromia

Other opportunities

- Guesthouses
- Possible list of other structures

Web and social activities

- Information on the institutional website

Social channels

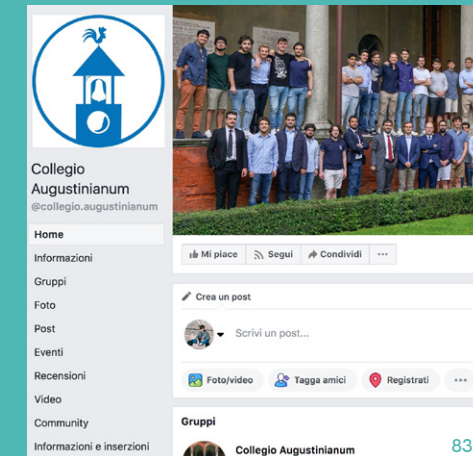
- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



82

YouTube
Inspirational video and series "Tanti buoni motivi per scegliere il collegio" with hosts testimonies

Facebook and Twitter
Private Facebook pages of the boarding schools and tweet on the cultural initiatives



Collegio Augustinianum
@collegio.augustinianum



Scatti d'autore sul dramma migranti
cattolicanews.it

84



Università Bocconi

Private university

Università Bocconi

Università Bocconi is a private university founded in 1902. It covers the studies areas of economics and management. The Institution has one headquarter in Milan, near Ticinese and Porta Romana. The housing accommodations of Bocconi are eight, all near the main campus.

Bocconi
Via Bocconi, 12
Milano

Organisational model:
Hotel model
single and double
rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input checked="" type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



85

Javotte
Via Giovenale, 4
Milano

Organisational model:
Hotel model
single and double
rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



86

Spadolini
Viale Spadolini, 12/A
Milano

Organisational model:
mixed
studio apartments
and single rooms in
integrated nucleus

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input checked="" type="checkbox"/> Car Parking |



87

Dubini
Via Vittore Buzzi, 7
Milano

Organisational model:
mixed
studio apartments
and single rooms in
integrated nucleus

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input checked="" type="checkbox"/> Car Parking |



88

Arcobaleno
Via F.lli Fraschini, 3
Milano

Organisational model:
Hotel model
single rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



89

Isonzo
Viale Isonzo, 23
Milano

Organisational model:
mixed

single rooms or single
rooms in integrated
nucleus

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input checked="" type="checkbox"/> Car Parking |



90

Blingy
Via Blingy, 22
Milano

Organisational model:
mixed

single rooms or single
rooms in integrated
nucleus

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



91

Castiglioni
Via Castiglioni
Milano

Organisational model:
integrated nucleus

single rooms in
integrated nucleus

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input checked="" type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



92

Web and social activities

Information on the
institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



93

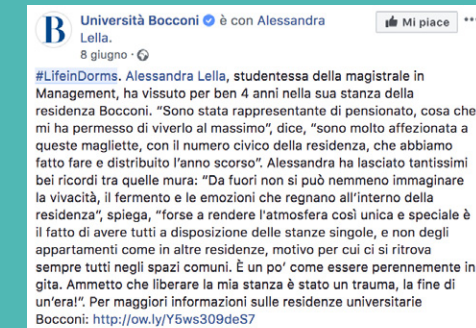
YouTube
Overview of the Campus
and of the accomoda-
tion facilities



94

YouTube
Video series
#BocconiLife explaining
how it is like to live on
campus

Facebook
Series #LifeinDorms
shows students'
experiences and
pictures of the Bocconi
dormitories



95



Università Vita-Salute San Raffaele

Private university

Università Vita-Salute San Raffaele

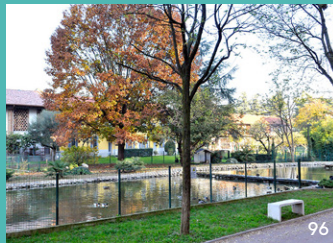
Università Vita-Salute San Raffaele is a private university founded in 1996. The areas of studies are three: psychology, medicine, and philosophy. The headquarter is based in Segrate.

The housing accommodations of UniSR are two, placed outside Milan but near the main campus.

Cascina Melghera
Via Olgettina Milano, 58
Milano

Organisational model:
Hotel model
single rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input checked="" type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input checked="" type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



96

Cassinella
SPexSS11
Vimodrone, Milano

Organisational model:
Hotel model
single rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input checked="" type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input checked="" type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



97

Web and social activities

Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat

Facebook
Some informational posts on accommodations dating back to 2014



98



Private university

Iulm

Iulm is a private university founded in 1968. It covers three areas of studies interpreting, translation, linguistic and cultural studies; communication, public relations and advertising; arts, tourism and markets. The headquarter is in Milan, out of the city centre.

The housing accommodations of Iulm are two, placed near the campus.

Cascina Moncucco
Via Bocconi, 12
Milano

Organisational model:
Hotel model
single and double rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



99

Residence Iulm
Via Giovenale, 4
Milano

Organisational model:
Hotel model
double rooms

- | | | |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Study room | <input type="checkbox"/> Library | <input checked="" type="checkbox"/> Laundry |
| <input checked="" type="checkbox"/> Ironing area | <input type="checkbox"/> Gym | <input checked="" type="checkbox"/> Cafeteria |
| <input type="checkbox"/> Canteen | <input checked="" type="checkbox"/> Tv area | <input checked="" type="checkbox"/> Living area |
| <input type="checkbox"/> Play room | <input checked="" type="checkbox"/> Kitchen | <input checked="" type="checkbox"/> Auditorium |
| <input checked="" type="checkbox"/> Wi-fi | <input type="checkbox"/> Bike parking | <input type="checkbox"/> Car Parking |



100

Agreements and other opportunities

Agreements

- Il collegio di Milano
- Meglio Milano
- Uniplaces

Other opportunities

- Accomodations board
- Male boarding schools
- Female boarding schools
- Mixed boarding schools
- Hotel and hostels

Web and social activities

- Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



YouTube
Video showing the Iulm residence's environments

Facebook
External call for free accommodations





Humanitas University

Private university

Humanitas University

Humanitas University is a private university founded in 2000. It covers three areas of studies medicine, nursing and physiotherapy. The headquarter is out of Milan area. The university provides one housing accommodation inside its campus.

Mario Luzzatto Student House

Via Montalcini, 4
Milano

Organisational model:
Integrated nucleus

single and double rooms
in integrated nucleus

- Study room
- Ironing area
- Canteen
- Play room
- Wi-fi
- Library
- Gym
- Tv area
- Kitchen
- Bike parking
- Laundry
- Cafeteria
- Living area
- Auditorium
- Car Parking



103

Web and social activities

Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



104

YouTube
Presentation video of Luzzatto Student House



105

YouTube
360° view of study areas

Facebook
Post concerning the new opening of the dormitory





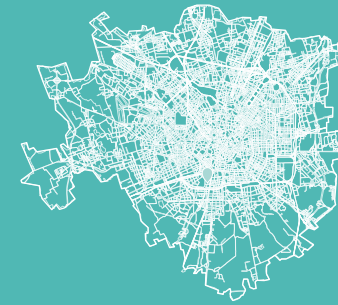
Brera Academy

Creative university

Brera Academy

Brera Academy is a creative university founded in 1776. It focuses on three areas of studies visual arts, design and applied arts, and communication and art education. The headquarter is in Milan city centre in Brera district.

The Academy does not have its accommodations but relies on third parties solutions.



Naba

Creative university

NABA

Nuova accademia di belle arti (NABA) is a private art school founded in 1980. It has two departments Applied Arts, which includes design and scenography, and Visual Arts. The headquarter is in Milan, near Navigli.

The academy has not got a student housing but, together with Domus Academy, has developed a service that helps students in finding an accommodation.

Agreements and other opportunities

Agreements

- Meglio Milano
- HousingAnywhere

Web and social activities

Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat

milanohousing.it Milano

Website offering selected housing providers or private landlords. Surfing the website, is possible to find studio apartments or single and double rooms in apartments shared with other students. The service is developed in collaboration with Domus academy.



Web and social activities

Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



YouTube
Video showing students experiences in finding homes with the help of the university.



Domus Academy

Creative university

Domus Academy

Domus Academy is a private Postgraduate Design School founded in 1982. It covers three area of studies fashion, industrial design, and design management. The headquarter is in Milan, near Navigli.

The academy has not got a student housing but, together with Naba, has developed a service that helps students in finding an accommodation.

milanohousing.it
Milano

Website offering selected housing providers or private landlords. Surfing the website, is possible to find studio apartments or single and double rooms in apartments shared with other students. The service is developed in collaboration with Naba.



Web and social activities

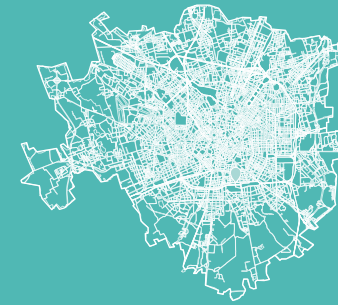
Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



YouTube
Video showing students experiences in finding homes with the help of the university.



led

Creative university

led

Istituto Europeo di Design (led) is a private professional school founded in 1966. It focuses on four area of studies design, fashion, visual arts, and management. The headquarter is in Milan, near Ticinese and Porta Romana.

The school has not got student housings but provides agreements and opportunities with other companies.

Agreements and other opportunities

Agreements

- DotStay
- Dovevivo.it
- Uniplaces

Web and social activities

Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat



 Istituto Marangoni

Creative university

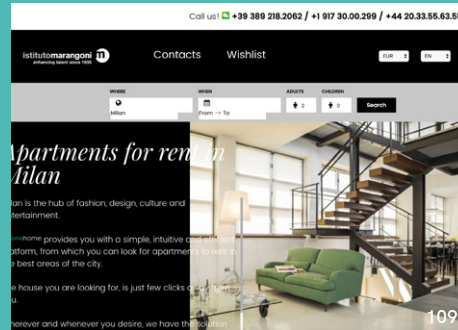
Istituto Marangoni

Istituto Marangoni is a private school founded in 1935. It covers the two areas of studies of design and fashion. The headquarter is in Milan, in the city centre.

The school has not got a student housing but has developed a service that helps students in finding an accommodation.

milan student
apartments.com
Milano

Istituto Marangoni has signed an agreement with the company Milano Home providing a free housing and accommodation service to assist international students in their housing search in Milano.



Web and social activities

— Information on the institutional website

Social channels

- Facebook
- Twitter
- YouTube
- LinkedIn
- Instagram
- Google+
- Snapchat
- Flickr
- WeChat

Focus: Student Housing platforms

This focus analyses the student housing platform, with particular attention to the ones that the Milanese Atheneum are currently using.

Besides the housing provided by the Institution, we can also find services that help students searching for accommodation and that are not directly linked to the University.

“Student housing was one of the best performing sectors during the global economic downturn and with the increase of international student numbers and the need for purpose-built student accommodation, is prospected to keep growing” (The Class of 2020, 2017). For this reason, and for the substantial annual growth that the internet and social media have, it has been possible to assist the birth of numerous housing platforms that help students in finding an accommodation.

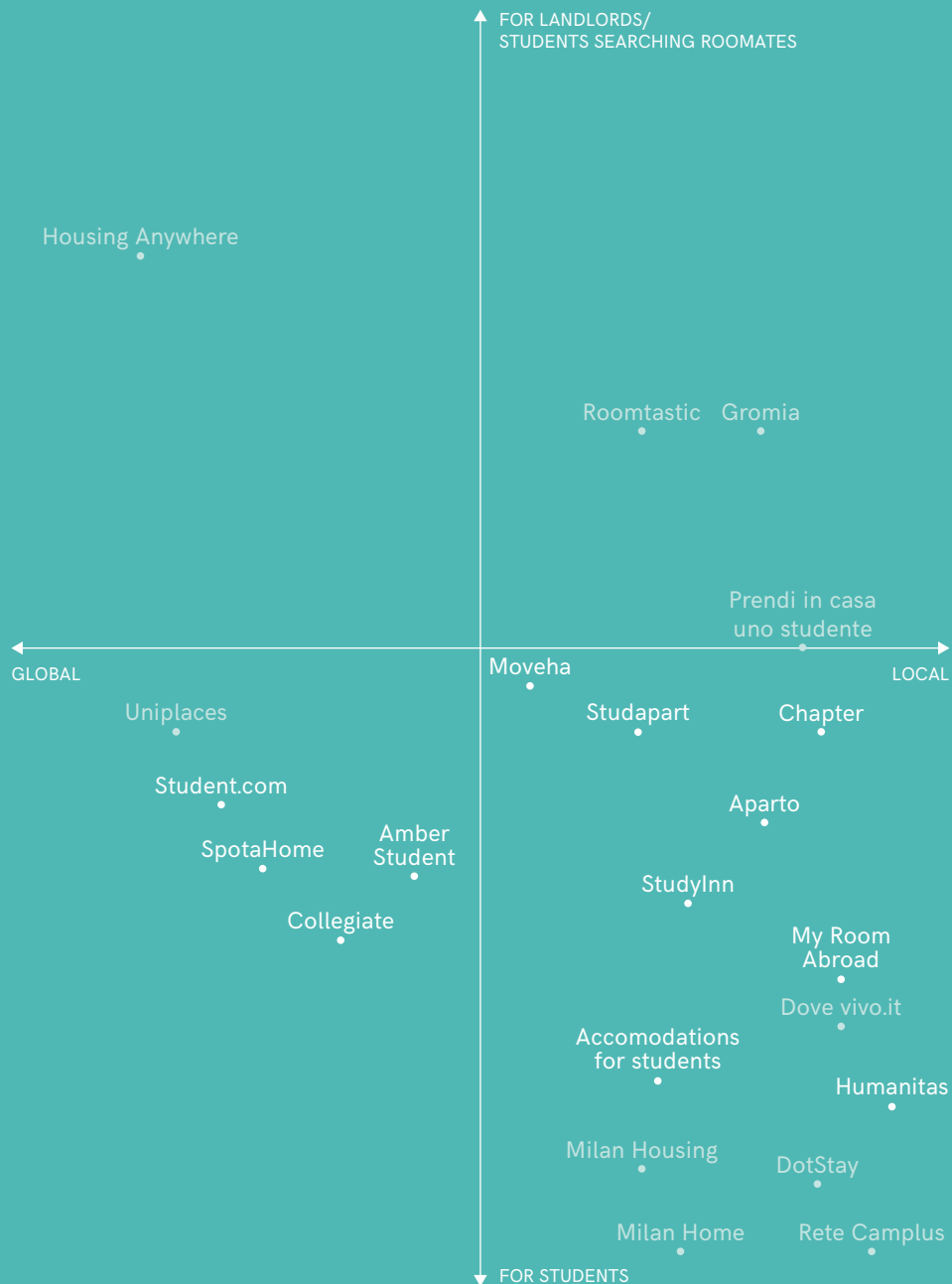
Thanks to different kinds of services provided and of partnerships with universities of the territory the platforms allow a significant simplification to students enabling to “compare the rents easily and to navigate through the various types of accommodation (i.e. renting an entire apartment, room in a flat share, room with a host family, mixed-age flat share, apartment in a serviced student residence, etc.)” (The Class of 2020, 2018, p. 41). Digital technology has also fostered the emergence of integrated digital platforms that offer online payment, airport pick-up, virtual apartment viewing, and other useful services. Nonetheless, there are several problems of transparency and on costs revenue for the company that invest in this sector.

Twenty-two international housing platforms and hospitality services have been analysed to understand how they differ from each other.

Some of the services have been designed thinking to a landlord as a primary user, or to all the students that go in exchange and need to rent their room for a specific amount of time. On the other hand, many platforms are more and more student-oriented offering events and other amenities. Still, looking at the positioning map the middle area between students and the landlord-oriented platforms is quite crowded, showing that companies and start-ups usually rely on both sides. The second parameters of comparison are the geographical scale of the service, as it is possible to observe lots of platforms are local or country-based and few have a global scale.

The platforms in a different colour are the one that Milanese Institutions referred to. The following part of this focus will analyse them in-depth, to understand their main features.

14
Positioning map of
twenty-one international
housing platforms



Housing Anywhere

Niels van Deuren
Rotterdam, 2009

Scale

- Global
- Local

Languages of the platform

- 8

Business model

- Free for students
- Free for landlords

Active users

- +400 cities and 160 partner universities



HousingAnywhere is one of the world's leading student accommodation platform, built for and by international students. It works with more than 160 universities across Europe and beyond, to solve housing issues for international students. A student that is going abroad can find a new home abroad in more than 400 cities worldwide, and sublet his room to an international student arriving in his city.

Uniplaces

Miguel Amaro, Mariano Kostelec and Ben Grech
United Kingdom, 2013

Scale

- Global
- Local

Languages of the platform

- 9

Business model

- Free for students
- Free for landlords

Active users

- +250.000 users



Uniplaces is one of the first global platforms that tried to simplify the process of finding accommodation. It offers to its users advice and recommends places to stay that best fit the taste and budget of each particular student. Since the launch in 2013, Uniplaces became the fastest-growing international website for booking student accommodation.

Prendi in casa uno studente

MeglioMilano and Fondazione Cariplo
Milan, 2004

Scale

- Global
- Local

Languages of the platform

- 6

Business model

- Free for students
- Free for landlords



Prendi in casa uno studente is an initiative promoted by the association MeglioMilano; it considers the cohabitation of an independent pensioned and a young offsite student. The main aim of the project is the collaboration between two different generation. The students do not have to pay the rent, but they participate in the monthly expenses; moreover, they are expected to help with housekeeping matters or with just a little company.

Rete Camplus

C.E.U.R. Foundation and Falciola
Foundation
2007

Scale

- Global
- Local

Languages of the platform

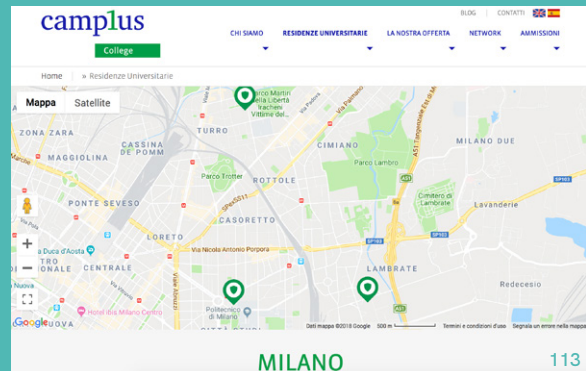
- 3

Business model

- Free for students
- Free for landlords

Active users

- 1.300



Camplus offers eleven colleges in seven different Italian cities; to have a place in one of them the students must participate in a call. It has three primary services: college, apartments and guest providing accommodations not only for students but also vacation rooms and guest rooms for tourists and offsite workers.

DotStay

Alessandro Adamo
Milan, 2013

Scale

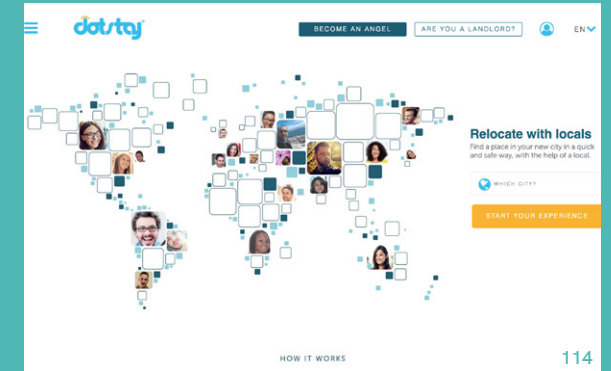
- Global
- Local

Languages of the platform

- 3

Business model

- Free for students
- Free for landlords



DotStay offers temporary and long homes. The platform offers a unique service: an Angel, that is to say, a local person, that within seven days helps the student in finding an accommodation. The service includes other comforts such as airport-pickup, and local sim card.

Roomtastic

Gianluca Gulisano, Luciano Lucci,
and Andrea Sabatini
Milan, 2015

Scale

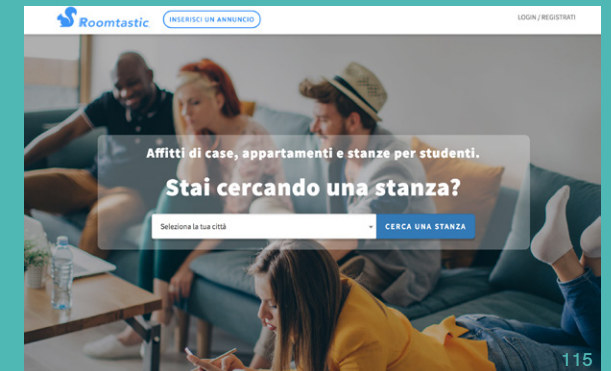
- Global
- Local

Languages of the platform

- 1

Business model

- Free for students
- Free for landlords



The platform allows finding roommates. The service is free for everyone, except if someone wants to highlight his advertisement. The process is really simple; the user needs only to register and fill the form with all the house's information.

Gromia

Milan

Scale

- Global
- Local

Languages of the platform

- 2

Business model

- Free for students
- Free for landlords



The service allows finding a room or a roommate. For each advertisement, it is possible to find high-quality photos or video tours shot by professionals that allow booking the room directly online.

Milan Housing

NABA and Domus Accademy Milan

Scale

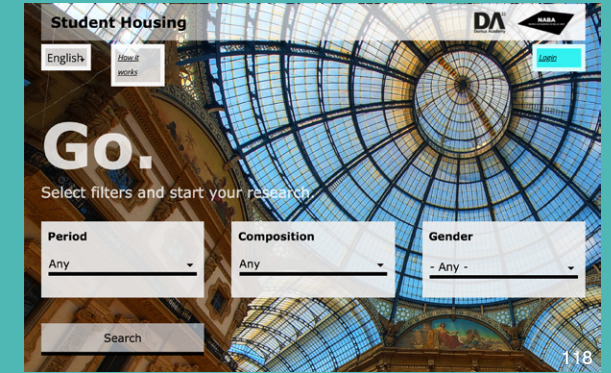
- Global
- Local

Languages of the platform

- 2

Business model

- Free for students
- Free for landlords



Milan Housing is a platform developed by NABA and Domus Academy where students can find accommodations selected by housing providers or landlords.

Dove vivo

Valerio Fonseca and William Maggio Milan, 2007

Scale

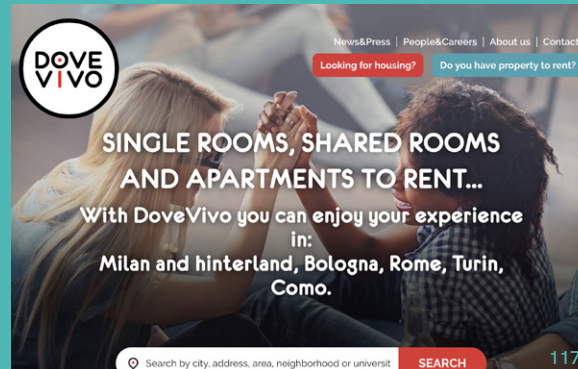
- Global
- Local

Languages of the platform

- 2

Business model

- Free for students
- Free for landlords



DoveVivo is a company which specifically manages housing rentals. The model is simple: the platform leases privately-owned apartments with long-term contracts, and then rent individual rooms to young professionals, interns, trainees, business travellers, university students and PhD researchers for medium and long-term stays.

Milan Home

Istituto Marangoni Milan

Scale

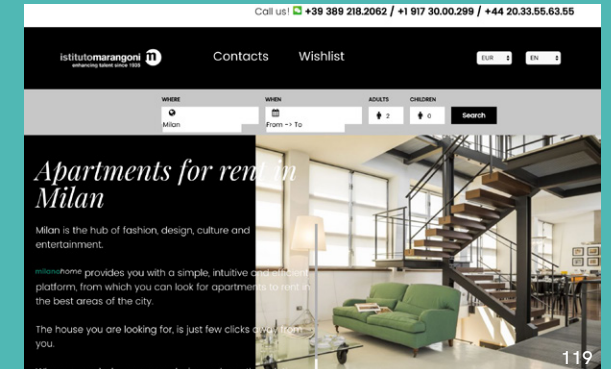
- Global
- Local

Languages of the platform

- 7

Business model

- Free for students
- Free for landlords



Milano Homes is a platform developed by Istituto Marangoni that allow looking for apartments to rent in the best areas of the city.

3.2 The student housing situation of Politecnico di Milano

Starting from November 2000, with the introduction of Law no. 338, PoliMi has established its first work and research groups, among which stands the ABC Department¹⁶ that has worked for many years and has investigated all the different aspects regarding a student housing. In parallel with this continuous research, the Institution has started to construct several new dormitories which respect the research findings.

Since 2007 PoliMi has undertaken a structured and complex project aimed at increasing the hospitality, more specifically the number of the available accommodations of the numerous dormitories. This initiative has involved not only students, whether they have or do not have a scholarship, or they are in exchange, but also PhD students, visiting professors, and in general all the people connected to the University's world. With this kind of operation, the Institution has succeeded in creating around 1109 new accommodations reaching, with this offer, one-third of the potential demand.

The PoliMi dormitories, in the Milanese area, are seven: five of them are located in the city of Milan and the other two are located in Lecco and Como. Thanks to a change in the managerial team all the residences that were not directly propriety of PoliMi have been slowly left to facilitate the creation of new dormitories that are directly under the control of the Institution.

The seven structures differ from one to another for the typology of service and rooms offered to the students, trying to answer the diverse needs of the users whose conception of housing is different from the typical one and joins the private and the collective sphere (Bologna, 2014). From a student's perspective the Residence represents a temporary way of living, it is not a dwelling but more a shelter; the student perfectly knows that, sooner or later, he will have to leave his room and someone else will replace him. This temporary nature is reflected both in the fact that the users change frequently and that their needs are not constant, but they are continually changing, making residences places that need to be characterised by different typologies, dimensions, services, mode of use and temporal distribution. Today the spatial proposal is more innovative and try to answer the need of privacy but also the need for socialisation (Bellintani et al., 2016), as a matter of fact, students prefer common areas with amenities and services included (Kolibar, 2018).

To have a clearer idea of the population of the dormitories

is possible to go through some numbers. One of the most important information to know is that residences are mainly addressing DSU students, that is to say, all the people that result beneficiary of a scholarship for the accommodation by participating at the *Diritto allo Studio Universitario* call. Every year approximately 5.000 students apply for the scholarship and the places available inside the residences are currently 1.041. In addition to those, the structures can host other 1.145 students divided as follows: 257 places are for private allotment that includes all the categories that are strategic hosts for the university (visiting professors, visiting PhD, PhD from Politecnico, 70 international recipients of scholarships, double degree students, and disabled people), 28 places are for guestrooms, 860 accommodations with full price, comprehensive of 200 places for DSU students in Como and Lecco.



During the opening of Pareto Residence in May 2018, it has been possible to understand better the distribution of the student population inside the residences. The 64% of the population is composed by man, versus 35% of women; 8% of the students are from design, 70% from engineering, and 22% from architecture; 58% of the students are foreigners, and the average age is 24 years old.

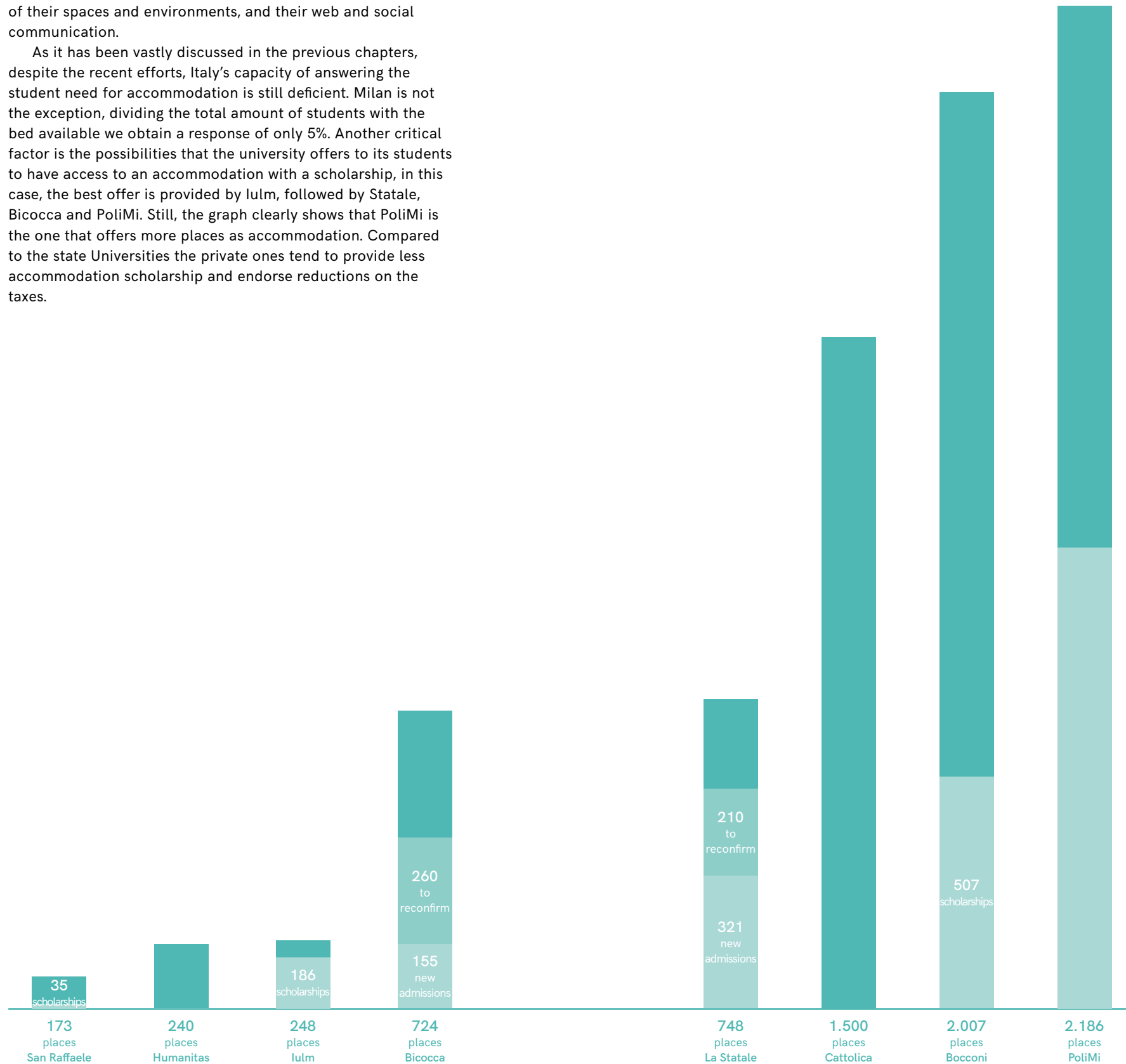
3.3 Environment and communication in comparison

In the focus of this chapter, the student housing of all the Milanese Universities and their communication have been analysed. This paragraph will use those data to compare the Athenaeums and analyse their strategic positioning concerning their ability to answer the users' needs, the quality

16. Department of architecture, built environment and construction engineering

of their spaces and environments, and their web and social communication.

As it has been vastly discussed in the previous chapters, despite the recent efforts, Italy's capacity of answering the student need for accommodation is still deficient. Milan is not the exception, dividing the total amount of students with the bed available we obtain a response of only 5%. Another critical factor is the possibilities that the university offers to its students to have access to an accommodation with a scholarship, in this case, the best offer is provided by Iulm, followed by Statale, Bicocca and PoliMi. Still, the graph clearly shows that PoliMi is the one that offers more places as accommodation. Compared to the state Universities the private ones tend to provide less accommodation scholarship and endorse reductions on the taxes.



16
Distribution of the students' accommodations of the Milanese Athenaeums

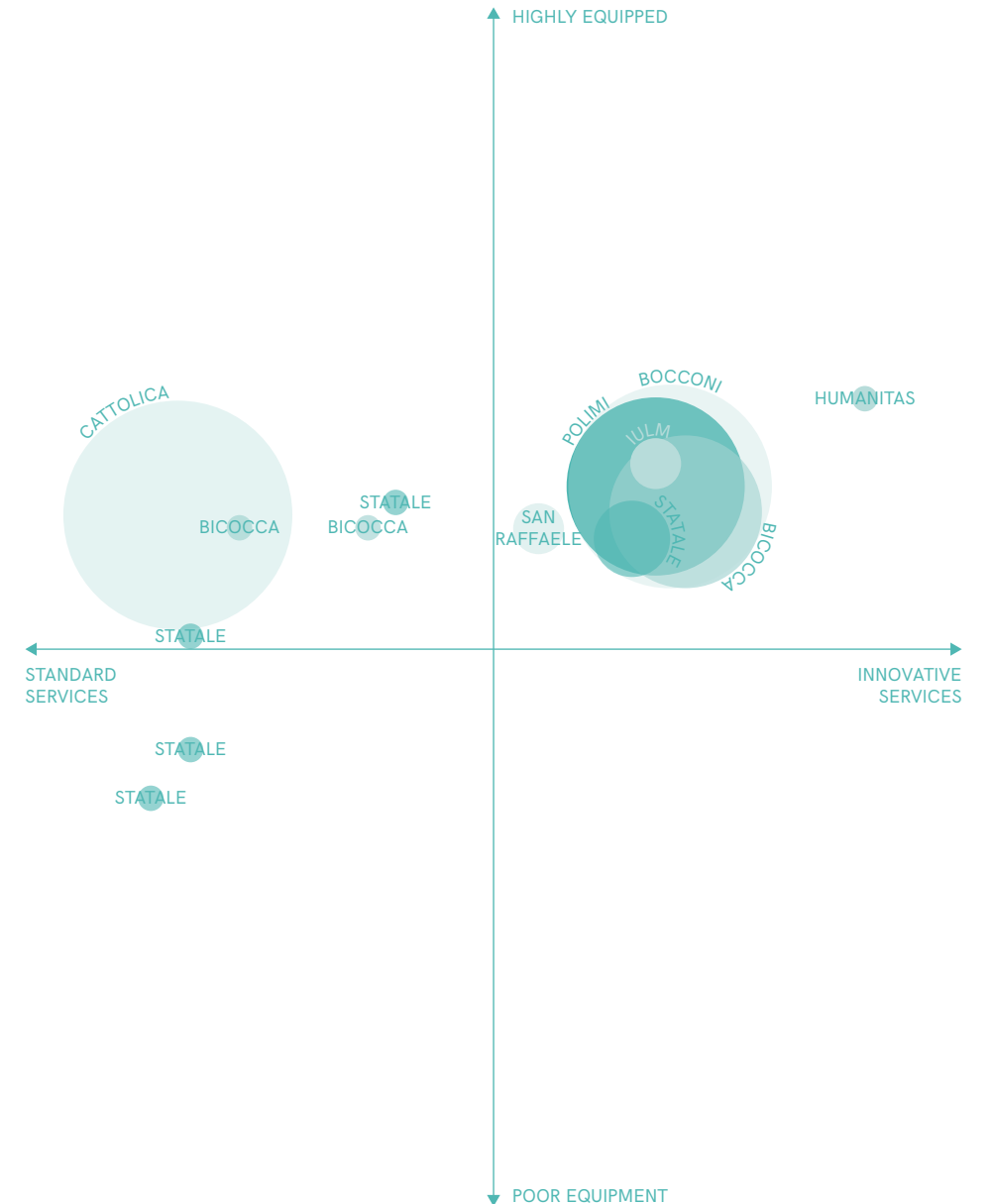
17
Distribution of the organisational and functional models of the Milanese Athenaeums

Proceeding with the analysis, it has been observed the spatial composition, or better the organisational and functional models that the dormitories of the Universities propose. From the graph is immediately clear that PoliMi, together with Bicocca and Bocconi are the ones that present a varied offer; with a consequent superior ability to answer the needs of the diverse academic users.



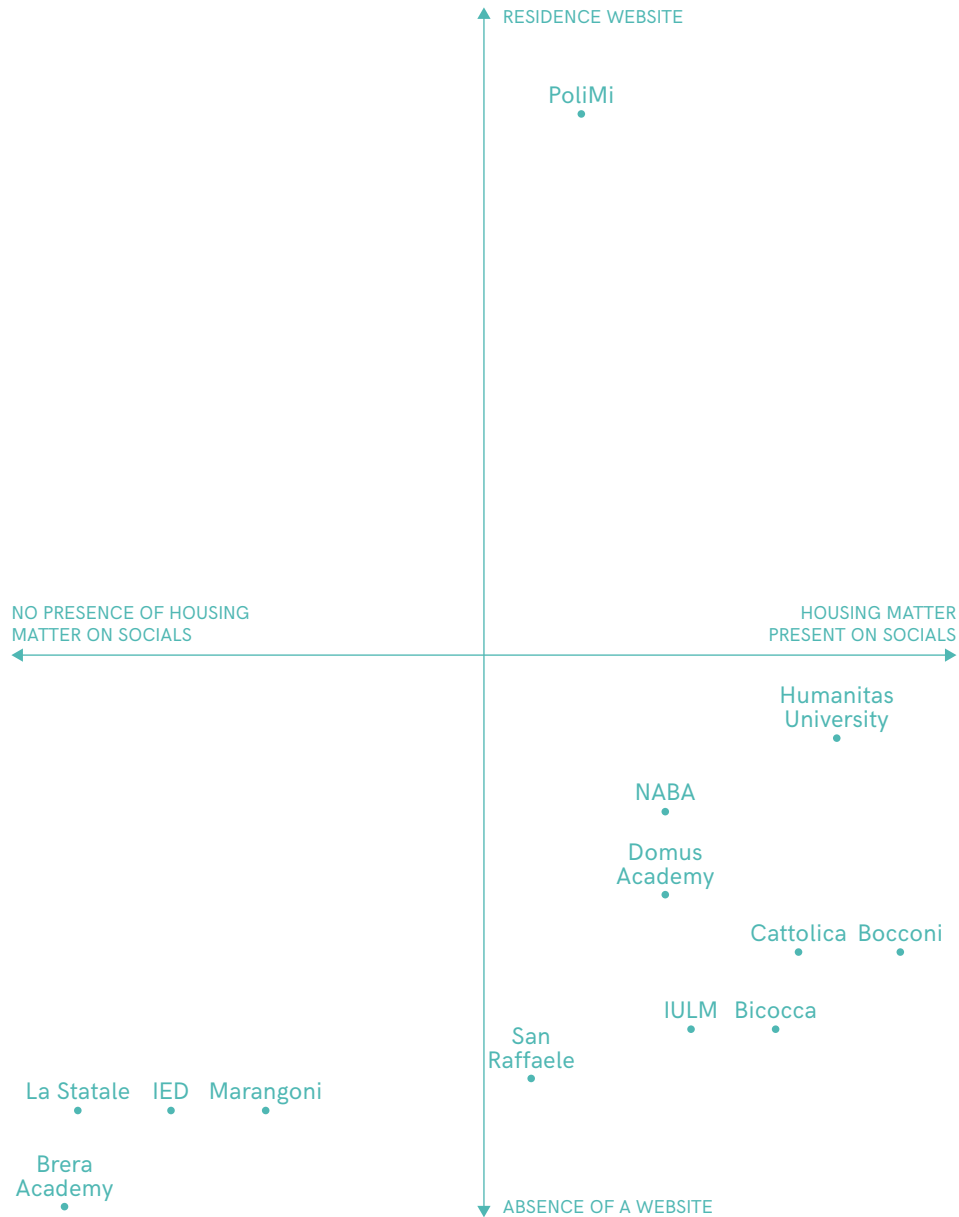
18
Positioning map showing the services and equipments of the Milanese Athenaeums

The focus of this chapter has shown the services and equipment of each Athenaeum. The following positioning map is based on these two parameters where the diameter of each circle is directly proportional to the number of structures that each University has. As it is possible to observe, the situation is unbalanced with the majority of Institution that can offer innovative services and highly equipped buildings. According to StudentMarketing research (The Class of 2020, 2018) the PBSA (Purpose Built Student Accommodation), namely the housing built for students by private developers, are offering more and more different amenities to students. As is possible to understand from the positioning map, this positive trend is also followed by the universities' housing.



19
Positioning map showing the use of social media for student housings of the Milanese Athenaeums

A more sensitive matter is represented by the use of social media and more in general of the web. Apart from PoliMi, all the other Institutions lack a website for their housing offer, moreover observing a dynamic action on the matter of dormitories on social channels is very rare. Although the map shows that seven Athenaeums are using social, it is not possible to define their activity constant. The use of web and social is probably the weakest point for universities, resulting in inadequate information for the students.

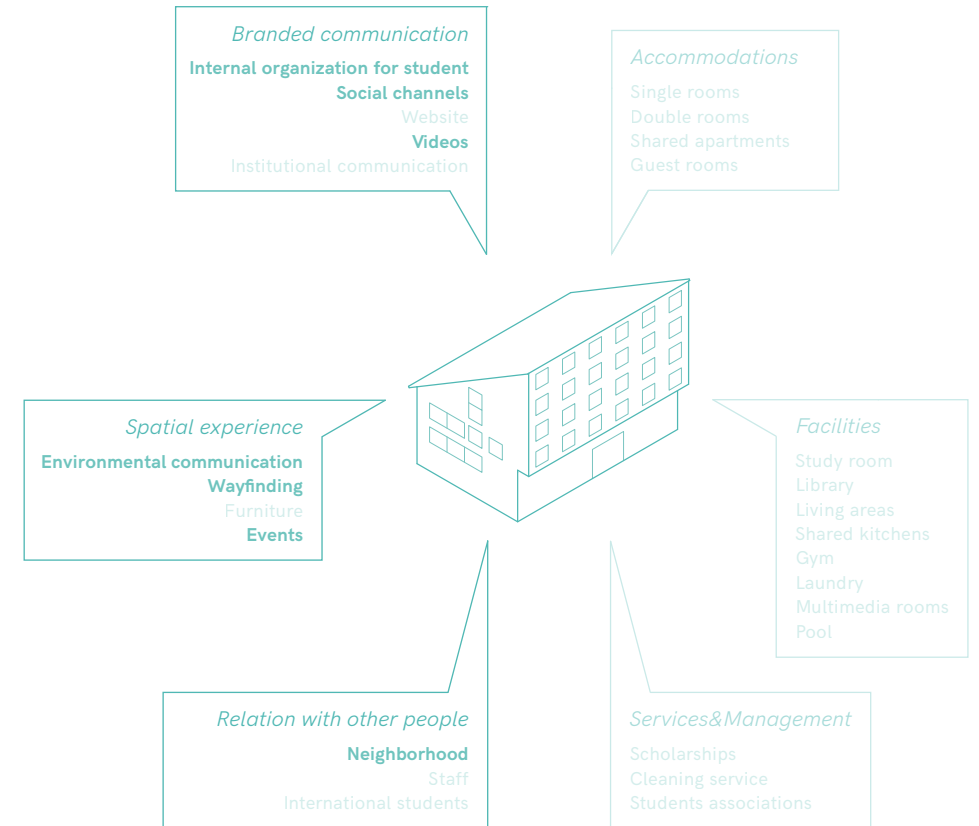


3.4 The missing points of the system of PoliMi Residences

Thanks to the analysis conducted in the previous paragraph, it is possible to affirm that, as opposed to its competitors, PoliMi performs well, providing numerous structures with different services and facilitating the access to those with scholarships. Nonetheless, the housing system has some problems attributable to the lack of connection between the elements and the inadequacy of the communication. The institution has two offices that are in charge of designing and administering the dormitories; the Conservation and Building Services involved in the construction and management, and the Housing Service engaged in the scholarships' management.

PoliMi has understood the urgency to integrate the design approach within its organisation to solve in particular the spatial and communication problems in the housing system.

20
Missing points of PoliMi dormitories in 2017



The branch of design that offers the interdisciplinary approach required for this project is service design. The aim of service design is, by taking a holistic approach, understanding the system and the actors within it and develop ideas that are translated into feasible and innovative solutions for the organisation (Mager & Sung, 2011; Moritz, 2005). By relying on service designers, PoliMi is expecting the creation of additional value not only for the organisation but also for the users. To achieve this goal the usual figure and role of the designer are not needed, instead "the role of the designer has clearly shifted from solving simple problems to solving complex problems, and from working independently in a single-discipline focus to working collaboratively with cross-functional teams." (Lockwood, 2009, p. 30).

Getting the system map of the first chapter back, and referring it to PoliMi, is possible to observe that some of the elements disappear entirely from it; in particular all the one connected to communication. PoliMi succeeded in creating accommodations, facilities and services able to satisfy the users' needs but it is not able to communicate them. The following chapter will entirely focus on the firsts two projects that have tried to create a more cohesive system integrating and bringing innovation in the existing one.

Comunicare

Ospitando: a project that joins spaces and services

To answer the students' needs, PoliMi has successfully increased, over the last years, the accommodations of its student housing. This chapter will focus on a research project, named *Comunicare Ospitando*, which focuses on implementing the environment and mostly designing a new communication system for the structures through environmental communication and a series of videos to be shared on the most popular social media of PoliMI.

4.1 The research project *Comunicare Ospitando*

The willingness of PoliMi to go towards European standards resulted in different research activities and, also, in various projects. Among the running ones, there is *Comunicare Ospitando* research, whose focus is on all the details that were previously believed secondary and not so mandatory for the completeness of the project of the student housing. The first one regards the lack of character in some spaces, in particular, the collective ones. Dormitories have the urgent need of the so-called *transitional* spaces (Leiserowitz et al., 2016) that are malleable and adapt to the needs of the user, but also they needs of areas that transforms from big and open to more intimate spaces to guarantee more privacy to the users.

The second main focus of the research concerns the communication aspect both of the environment and of the rules and services of PoliMi.

The active players in this research are two main figures, one is a research group from the Design Department of Politecnico di Milano, PoliMi Desis Lab - Design for Social Innovation and Sustainability - a laboratory research about design for social innovation and sustainability, strategic and service design, and methods and tools of co-design. On the other side there is the Conservation and Building Services department of the Politecnico di Milano, which has been designing and overseeing the students' dormitories for the university for many years (Collina et al., 2018).

The main output of this working collaboration is the creation of a guideline manual for the students' dorms, using the strengths of service design combined with conservation and building services and applied to the environments of the dormitories and local context.

In the beginning, the project was meant to cover in one year with the development of the following five timeline points.

1. May 2017. Definition of the scope and the pilot project. The Residence Isaac Newton serves as a prototype since the subject of the PSSD Environmental Studio and since its structure is new and with an high level of replicability.
2. July 2017. Definition of the concept starting from the result of the PSSD Studio
3. July 2017 - October 2017 Development of an executive wayfinding project and furniture (complete of details of the

May-July 2017

Definition of the scope and of the pilot project. During the PSSD Environmental Studio, Isaac Newton Residence is used as a *prototype*

July 2017

Final exhibition of the PSSD Environmental Studio.

Definition of the concept starting from the results of the PSSD Studio

October 2017

Wayfinding, furnitures and setting for the three dormitories of: Isaac Newton in Milan, Adolf Loos in Lecco, and La Presentazione in Como.

November-September 2018

Implementation of the wayfinding, furnitures and settings in the other Politecnico residences in Milan: Casa dello studente Leonardo Da Vinci, Albert Einstein, Vilfredo Pareto.

Implementation of the *GuardaMI* project for all the dormitories.

design solutions, costs) for the three residences of *Isaac Newton* in Milan, *Adolf Loos* in Lecco, and *La Presentazione* in Como. The allocated budget is 20.000€ for each residence; in parallel with this activity, the *Lab|Imagine*¹⁷ of PoliMi should create informative videos about the Residences. During October 2017 the work of the installation for the wayfinding system should begin.

4. November 2017 - September 2018. All the previous works should be carried out also on the other PoliMI Residences in Milan (*Casa dello Studente*, *Einstein*, *Pareto*) and the previous project should be monitored. In the meanwhile, a studied institutional and facility communication should be designed for the residences.

5. Implementation of the communication plan for all the existing and yet-to-exist residences.

My contribution to *Comunicare Ospitando* research started with the experience of the PSSD Environmental Studio, followed by an internship and a further collaboration.

4.2 The experience of PSSD Environmental Studio

The experience of the PSSD Environmental Studio represented the starting point of the research when the first exciting insights came out thanks to an intense co-design activity that involved the dormitory's inhabitants. The focus of the studio was the exploration of how environment and experience design can merge with PSSD to create an understanding of how place, space, and experience can be potent and memorable components of a comprehensive service and system design approach. Indeed, when doing service design, the understanding of the context and, more specifically, the knowledge of the user experience in it is essential to provide a new value proposition (Wetter-Edman et al., 2014).

The final deliverable of the studio was a service system that contains the redesign of a shared space, an innovative service that serves the community and may be supported by a digital platform, and the environmental communication. The time at disposition to develop all the project was more or less one month, with two main design directions to follow: focusing on the internal community and communication between students or exploring the neighbourhood and understand how Newton

17. Lab|Imagine is one of the four laboratories of PoliMi Design Department. Set up in 2014, it focuses both on teaching and research. It supports activities in the fields of planning, production and management of communication products in audio-visual and photographic format.

dorm can create synergies with it.

The most significant moment of the studio for *Comunicare Ospitando* research was the co-design session organised in the days of 22 and 23 May 2017. Many research tools and activities were carried out, among which there are shadowing, interviews, questionnaires, hot-pot, treasure hunt, express yourself, and a speed date. The two days of activities proved to be successful with a high level of participation: 110 students took part in the aperitivo, 25 students participated in the hot-pot, 54 were the answers inside the boxes, and 37 students, 3 people from the staff, 23 people from the neighbourhood were interviewed.

The key findings of the co-design where both related to the spaces and the communication resulting meaningful and useful during the design phase of *Comunicare Ospitando*.

4.3 *Comunicare Ospitando*: the environmental communication

The paragraph is focused on the project of the environmental communication of some PoliMi dormitories. Starting with an introduction of what wayfinding is, it will then explain the phases of the project and its results.

4.3.1 What is wayfinding

Architecture is a combination of places and paths that people discover and follow. When we are walking through an unfamiliar building, we are always searching for reference points or signs that can help us in the orientation. People create a kind of dialogue with the surrounding environment, composed of questions to space and of answers in the form of instructions and interpretation that make people choose one direction rather than another. What we usually do is trying to find some *signs* that can help us in finding the right direction, these last can be more explicit like an indicator sign, or less explicit like a passage that invites you in. In order to avoid cases of disorientation, there is the necessity of signing the place, taking into



fig.121 Co-design session

fig.122 Co-design session organised few days after the aperitivo

fig.120 One of the posters hanged in preparation for the co-design session



consideration the fact that different people have got a different way of understanding signs and finding their way (Picciani, 2009). In this sense it is possible to say that signs are the link between the surface and space, they translate the functions and the context visually so that the architectural space is understandable by everyone (Bauer & Mayer, 2009). The discipline that takes care of translating the architecture into logical signs is the wayfinding if we break down the word it is easily recognisable that its meaning represents "the act of finding your way to a destination" (Berger, 2009).

Starting from the '60 the theme of orientation and signs has been discussed at great length; it is of particular interest the way in which Per Mollerup treats this topic. For the author wayfinding is a problem-solving process and, for this reason, it is strictly linked to the users (*sign readers*) while the designers (*sign writers*) are dealing with wayshowing that is a facilitator of wayfinding:

"Wayshowing relates to wayfinding as writing relates to reading and as speaking relates to hearing. The purpose of wayshowing is to facilitate wayfinding. Wayshowing is the means. Wayfinding is the end."

(Mollerup, 2005, p. 71).

In order to design an excellent wayshowing process, that helps people in the orientation and case of emergency, the designer needs to consider several factors:

Messages and levels of communication

Usually, all the signs contain some messages, which are information given from a sender to a receiver. The messages can vary in nature as explained by Mollerup:

"Three signs in an airport exemplifies the three modes of communication:

- The sign text "tickets" is an example of identification. The sign identifies the ticket office
- The sign text "tickets" together with an arrow is an example of explanation. The sign explains in what direction the ticket office is found.
- The sign "smoking prohibited" is an example of instruction. The sign instructs the reader to do something, to refrain from smoking." (Mollerup, 2005, p. 79)

At the same time, messages are not only written

information but also visual ones. In particular, all the icons convey a different meaning that is strictly bond to their object of similarity; they can be divided into three subclasses, images, diagrams, and metaphors. Respectively the first one refers to the icons that picture the object, the second one to the ones that are visual abstractions and resemble the object, and the last one to the ones that have some conceptual qualities in common with the reference object.

The last aspect to consider is the level of communication of a sign and so the impact that it has on his reader, which can, in turn, be analysed on three levels:

- the technical level: it refers to the accuracy of the message, the essential quality is legibility since it refers to the capability of making perception easy
- the semantic level: it refers to the fact that a sign carries inside lots of different meaning, the most important quality is comprehensibility that makes the message readable and understandable in a natural way
- the effectiveness level: it refers to the capability of influencing the behaviour of the reader, the essential quality is persuasiveness the power to persuade the reader to perform an action.

Signs functions

A wayfinding project is a system of signs and messages that acts as a link between different people, even if they do not share a common language or destination, by guiding them in space. "The unifying language of a wayfinding system creates a public narrative of how people witness, read, and experience a space" (Gibson, 2009, p. 46). Designers broadly share this concept of wayfinding as a narrative. In an interview (Bauer & Mayer, 2009) Ruedi Baur defined it as a *novel* and a *narrative system*, he argues that is impossible to test the wayfinding usefulness in advance since testing a single sign is reductive compared to prove the effectiveness of the whole system.

Usually, in wayfinding systems, different categories of signs are identifiable: identification, directional,

descriptive or orientation, and regulatory.

Identification signs are the one used to show the identity of the place; they explain what the place is and what a user can find there. They display the name and a function and usually appear at the end or the beginning of routes. Nevertheless, their function is not merely functional, with the proper style and design they can express the personality of the space and its identity (Bologna, 2014).

Directional signs compose the circulatory system of a wayfinding project, and they show the recommended ways in order to arrive at the destination. They are double or triple coded signs. Their meaning depends on the location, the direction to which they point and the text or picture that shows what can be found. For these reasons, they are the signs that mostly depend on their context.

Descriptive and orientation signs act as a facilitator, they are used to make a complicated space easier by giving more information on the space to their readers. It is of extreme importance that they coordinate with other identification and directional signs so that the wayfinding system can work appropriately. In this category, we can usually find maps, office openings, and timetables.

Last but not least, regulatory signs indicate what is and is not allowed in a particular space. For their prohibition/warning nature they need to be eye-catching but not unobtrusive and, also, designed in an understandable way for everyone.

Typography

Typography is one of the variables that makes an environmental graphic different and more appealing than another. Nowadays a designer can choose between thousands of typefaces, by selecting one instead of another it is possible to give a diverse personality to the wayfinding project and so to space. Nonetheless, choosing a fancy font instead of a legible one can lead to the project failure, think about a driver: if the sign on the road is not immediately clear he does not have the occasion to stop or back up. In order to increase legibility, simple typefaces are better than complicated ones. In a typeface, there are two characteristics of the letterform that affect legibility: the height of the

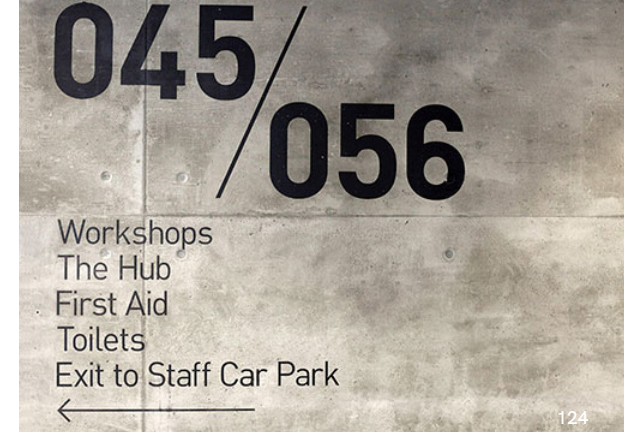


fig.123 Identification sign in 9h Narita Airport
fig.124 Directional sign in North Glasgow College
fig.125 Orientation sign of walkNYC project
fig.126 Regulatory sign

22
Letterforms



23
Characters legibility for ADA



24
Letter spacing or kerning



25
Line spacing



lower letterforms (x-eight), and the openness of the voids inside the letters (counter spaces). Americans instituted the ADA¹⁸ (American with Disabilities Act) which provides the design standards for people with disabilities, according to it a readable typeface for a person with comprised vision requires a width-to-height ratio between 3:5 and 1:1 and a stroke width-to-height ratio between 1:10 and 1:5.

After having selected the suitable typeface, the designer should choose its size and weight. In general, the preferred weight is the normal one since it is more readable, while italic and bold are only used for special occasion. The size is a more complicated matter; a general rule suggests calculating reading distance as the multiple of x-eight times 500, this means that a sign of one centimetre can be read from a distance of five meters. The multiplier decreases in healthcare environments where it becomes 400 or 300. This might seem easy, but the maximum readable distance does not correspond to visual impact distance, this last refers to the maximum distance at which you are sure to notice the text and is usually one fourth of the maximum readable distance. For example, if we are in a hospital and we have a text of 10cm, it is readable from 40m, but its visual impact distance is only 10m (Gislon, 2014). Font size decided, it is necessary to pay attention to the letter spacing, which is adjustable using kerning to improve legibility, and to line spacing that can be arranged using different leading sizes. Finally, if a sign requires a vertical text the rule is to use only caps letters; alternatively, it is possible to rotate the text 90 degrees to the right in order to be read from the top down.

Pictograms

If a person travels to another country, he is likely to find wayfinding systems that he cannot read. Fortunately, an environmental graphic is also composed by pictograms that are understood worldwide. In a simple image is possible to represent a place, a service, or an action. In past years pictograms used to be a set of defined figures that are employed in different space, nowadays things have changed since they acquired the function of placemaking and branding. Starting from the ordinary one, designers change the aspect and implement the

18. The acronym ADA stands for Americans with Disabilities Act. It became law in 1990 with the aim of prohibiting discrimination against individuals with disabilities in all areas of public life. The ADA is divided into five sections that relate to different areas of public life.

graphic of all the set of pictograms present in the structure so that they follow the style of the place and can help in strengthening its identity.



128

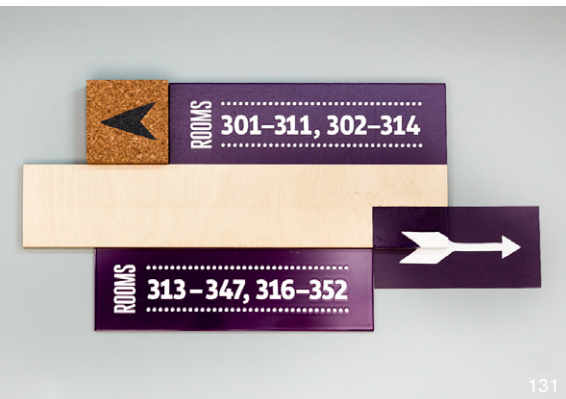
fig. 127 Voskresenskoye wayfinding system
fig. 128 Pictograms for Voskresenskoye wayfinding system

Maps

Maps provide an overview of the environment and space; they are an abstraction of reality. The first thing to consider, when designing maps, is to decide which area needs to be included and which one needs to be excluded; besides is always a good idea to provide reference point like the you are here designation. Other key factors are the texts, which can be present only if necessary, and the graphic that usually follows in colour and style all the other graphic elements of the system.



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131



130

Colour

Colour is one of the most useful tools that a designer has, due to the fundamental role that it plays in our everyday life it helps people to identify and navigate through space.

Colours can be distinguished by three proprieties: hue, intensity, and value. The first one refers to the different grade or variety of colour, intensity to the saturation or density of colour, and value to the darkness or lightness of the colour. In order to create a beautiful palette, it is necessary to select a colour with the same value, while for legibility is better to choose different intensities between the text and the panel; finally, hue affects the overall look of the project and space.

For people with impaired vision is essential to consider the contrast in brightness also defined as colour reflectance. The ADA Guidelines recommends a 70% difference in colour reflectance for a signboard and its background. Taking into considerations this rules the designer should consider a palette studying both the space but also the conditions of light. Colours change their aspect based on the support where they are printed, for this reason, the designer should do many test prints. In wayfinding, project colour can be used to differentiate areas, define a function or, also, define the identity of the place.

Materials

As mentioned in the paragraph dealing with colour, materials have an essential role in a wayfinding system. For instance, a wood panel gives a different sensation from a metal or *dibond*¹⁹ one, both from the visual and the sensorial point of view. In addition to that, there are some cleaning issues to take into consideration; some materials are more comfortable to clean and more durable than others.

Height

After having decided where a panel should be placed it is important to define the height of it. In general, panels that are placed near a room, are positioned next to the handle with a top height of around 170cm. Places that are always very crowded, or where lots of people are

26 Viewing zone

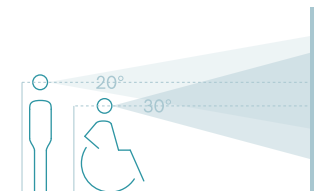


fig.129 Map in the wayfinding system in Merano
fig.130 Colour as a wayfinding tool in the Underhub language school
fig.131 Different materials in a single sign

¹⁹ Aluminium composite enclosing a Polyethylene core. Suitable for a huge range of applications, they are lightweight but strong and the extremely flat surface is great for printing high quality graphics or text.

expected in the same time are an exception, require a major height of the panel, which increases according to the distance from which the panel should be visible.

Wayfinding for all

In the previous paragraphs, we discussed in depth some general rules and precautions that need to be taken into consideration, among them, there are also some that are specific for people with impaired vision. Unfortunately, this is not the only disability that exists; indeed many others can be temporary or not and may be more connected to movement or the understanding of the different information. It is the role of designers to think of a solution that can answer to the different needs of every human being.

Two disciplines are working in this direction: Design for All and Universal Design. The latter aims at designing products that can be used by as many people as possible, while the first one aims at designing products that everyone can use without setting at zero the differences (Lupacchini, 2010).

A project of wayfinding for All, aside from being an instrument for finding the way, makes sure that all the possible users can understand and move freely in the place. This is possible thanks to an accurate study of the characteristics and issues of the space, together with the possible logic that the different users will use to go around. Bandini Buti suggests a division of the space in different categories: zone, part, subpart, crossroads, and paths, so that is possible to analyse in which measure they can communicate to the final user (Buti, 2008). He suggests that the denomination for each space need to be:

- meaningful, in the sense that it needs to be recognised by the users
- memorable, in the sense that it needs to be remembered
- transmissible, in the sense that it can be communicated from user to user
- unique, in the sense that it cannot be mistakable

When a wayfinding project is completed it should be

evaluated according to three different levels, which contain other four conditions:

1. *Technical level*

Readability: the content should be clear and readable

2. *Semantic level*

Comprehensibility: the content is clear

3. *Semiotic level*

Aesthetic affordance: the artefact is pleasant

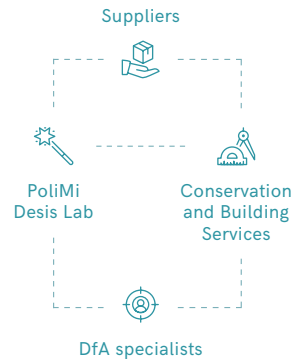
Semiotic affordance: the artefacts it is easy to interpret

The first two conditions refer to standard factors that are present in the evaluation of a communication project, while the other two are connected to the evaluation of a Design for All project where the design should be understandable, and it should allow people to feel respected.

4.3.2 The brief, the actors, and the design problem

In the brief of *Comunicare Ospitando* research, the most urgent request was the creation of an environmental communication that can be initially studied and applied in three dormitories - Isaac Newton Residence in Milan, Adolf Loos in Lecco, and La Presentazione in Como - and then scaled up to all the other existing ones. This particular demand arises because of the lack of communication of the different dormitories' environments and, also, from the absence of an identity that can make each dorm attributable to the PoliMi Institution. The efforts made during the past years by the Institution has led to double the accommodations. Nonetheless, all the communication design both of the structure and of the service has been underestimated.

The stakeholders that have been involved in the phase are mainly the Conservation and Building Services, some members of the Design Department, in particular of the PoliMi Desis Lab, and two companies that are concerned with the printing and production of environmental communication artefacts. In the last part



of the project, other two actors intervene, following the request of having a design that can answer the *Design for All* requirements.

It is possible to divide the brief into different challenges since the client requested a wayfinding system inclusive of the safety part and of all the elements that compose what was called *social engagement*. This term refers to the graphic elements that are not signs but reflect the mood of the space; an example can be an illustration of a light bulb in a study area or a motivational message inside a gym that fosters people to do some exercise. These are elements that don't guide the user physically; instead, they try to set the right mood for each space. In this direction, the client asked to produce graphics that can animate the common spaces, make the dorm recognisable from the outside, and, also, make the management of some spaces easier, for instance, friendly rules of conduct of the kitchens. Creating an environmental communication, though, means creating a valuable experience for the guest that needs to feel welcome, space should be able to reflect its own identity creating and increasing in its users a shared sense of belonging.

4.3.3 Wayfinding: some case studies

Although wayfinding has got lots of rules, there are also endless possibilities and options to create a compelling and amazing system. The world is full of examples, in this section, we are going to have a look at some of them. What is going to be outlined are some aspects of the project that represents excellent examples from which is possible to learn lessons.

All the case studies that are shown don't refer to the university or the dormitory area. Design allows to taking inspiration from different fields, to exploit some principles and adapt them to different environments and situations.



fig.132 On-site visit with the client in Milan

Kreissparkasse Tübingen sav-
ings and loan bank

L2M3

Tübingen, 2006



Usually, the wayfinding system is always considered in a late phase of the project, or even when the architectural project is already finished. This was not the case of Kreissparkasse Bank where the Auer+Weber+Assoziierte GmbH architects involved the L2M3 studio in the early phase, to work in synergy with them (Bauer & Mayer, 2009).

During the early stage of the project L2M3 studied the building and the environment, Tübingen is a "green" city with lots of associations working in the field, even the edifice of the Bank was standing in the middle of a green site. For these reasons, the wayfinding system starts from the outside and continues inside where it focuses more on the identity objects.

The central theme of the project is nature, which does reflect not only the location but also the philosophy of the company, a giant life-size 22-meters tree stands in the principal staircase and each floor is characterized following this idea: floor 0 is grass, floor 1 is leaves, floor 2 is insects, floor 3 is butterflies, floor 4 is birds, floor 5 is kites. The wayfinding creates an ecosystem inside the building. Graphics are straightforward and made with the use of stencils and black paint.

What is remarkable in the Kreissparkasse project is the ability of creating a wayfinding that is simple and inserts in the surrounding environment creating a right identity for the company; the choice of assigning to each floor a natural symbol, based on an existing ecosystem, makes it easy to identify the position inside the building and remember the information.

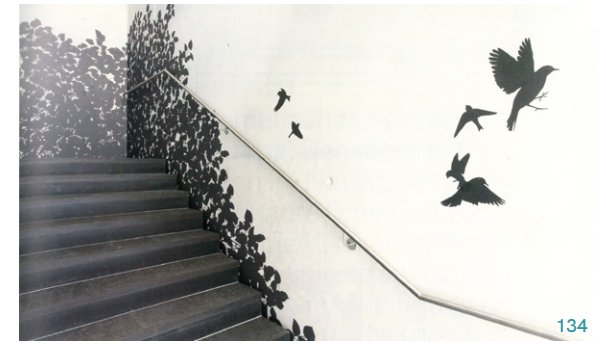


fig.133 Elevators of Kreissparkasse
bank
fig.134 Stairs of Kreissparkasse bank
fig.135 Stairs of Kreissparkasse bank
fig.136 Wayfinding theme of Kreisspar-
kasse bank

Médiathèque André Malraux

Ruedi Baur

Strasbourg, 2012



This case is different from the previous one, Ruedi Baur had to face a real challenge since it was included in the project only after that the building was completed (Bauer & Mayer, 2009). The site was formerly a port warehouse, the approach of the architect was very minimalistic, and the client was not happy with the result since it appeared that the environment was too cold for a library. For that reason, the architect spread numerous red ribbons around the place and the furniture, Baur decided to follow them and add only a third level. The project does not involve the use of supports, but it uses all the surfaces of the building where he screen-printed the system. Each department is matched with a different font according to the subjects that it treats, the design of the typefaces required lots of time since, in some occasion, where they are all together, they should work well.

As we have previously mentioned, assigning a diverse identity to the different areas makes the user's orientation easier; also, in this case, it is remarkable the capacity of the designer to adapt to the existing solution and exploit it creating a functional wayfinding system.

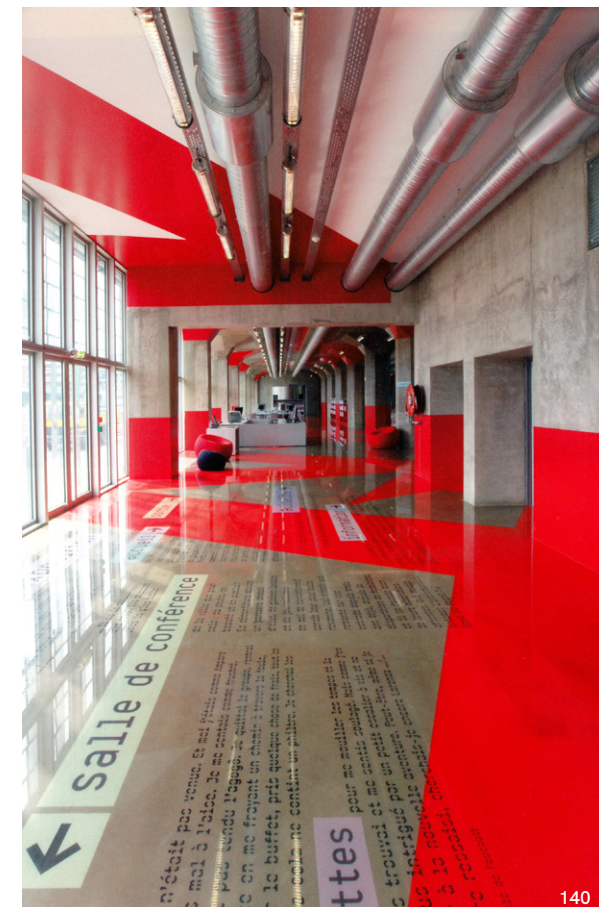


fig.137 External view of Médiathèque André Malraux
fig.138 Toilettes of Médiathèque André Malraux
fig.139 Interiors of Médiathèque André Malraux
fig.140 Corridors of Médiathèque André Malraux

Karlsplatz 2000 Years

Stefanie Lichtwiz with Harald Niessner
Vienna, 2009



For the 2000 years anniversary of the Karlsplatz Museum, the director decided to set up a city labelling project. The objective of the design was showing how the site has changed over the years, different messages and sentences were stuck on the public plaza to foster curiosity in the passersby like "the view of the Hofburg used to be beautiful from here" or "Antonio Vivaldi was buried here in 1741 when this was God's acre for the poor" (Bauer & Mayer, 2009). The messages are not meant to be in peoples' way but to convey and accompany them on a unique path. The project aims at bringing the museum inside the public space; this represents a great challenge for the design since you have to face, among other things, land ownership, responsibility, and maintenances challenges. Also, the public space near the museum is very noisy because of the various visual and architectural elements; that is why the designers choose to attach the 33 stickers on the floor. In this project the square becomes the exhibition, to make it more visible the designers put a crane of 35m in front of the museum, from which all the surroundings, stickers included, are visible.

Compared to the other two analysed projects this is characterised by a temporary duration. Nevertheless, it is an excellent example of how simple wayfinding can penetrate public spaces and tell a history of its institution, by inviting people to know more and giving visibility and identity to the place.



fig.141 Aerial view of Karlsplatz Museum

fig.142 The labelling project for Karlsplatz Museum

fig.143 The labelling project for Karlsplatz Museum

fig.144 One of the 33 stickers for Karlsplatz Museum

These examples are representative of some best practices that a designer engaged in the design of a wayfinding system should consider. In particular, providing reference points, exploiting colours, images, or different typefaces is essential for people with impaired vision or with other cognitive impairments: assigning a peculiar shape to a floor or a function makes the orientation easier. The other leitmotiv of these case studies is the identity of the place that is shaped by the wayfinding system, and that is present not only inside, but also outside of the building in order to make it recognisable. These are only some of the improvements that PoliMi Residences require, the complete lack of an environmental communication made dormitories placed in beautiful architecture wholly anonymous and not recognisable as a Politecnico structure from the outside.

4.3.4 The users and other design restrictions

A dormitory can host lots of diverse people of different ages, coming from all around the world. It is almost impossible to make a list of all the users, considering the fact that, year by year, they are continually changing. Still, the information that a wayfinding system need to convey is always the same: how to navigate the space. Therefore, it is required to pay particular attention to the semantic level, and so to the message, that each sign is providing with due regard to the design of the pictograms that should be universally understandable.

Thanks to the multitude of personalities that the dormitory hosts is not necessary to consider if a student is coming from India and studying engineering rather than a PhD design student. Instead, the designer needs to keep in mind the different physical characteristics and the possible impairments of the dorm's inhabitants. For instance, a residence can host a student in a wheelchair, a girl that is 1.60m tall and a guy 1.90m tall, their different statures affect the installation height of the signs that require to be comfortably read by all of them. If we then consider that the guy has some visual impairments, the sign should have a correct colour contrast, the typeface should be readable and have a bigger size, and the material of the sign should not

reflect too much the light.

More than depicting different personas with different needs, the design of a wayfinding system requires the identification of all the possible physical differences and impairments of the users. By doing so, it is possible, as the *Design for All* affirms, to construct a system able to meet the needs of everyone without making distinctions.

Besides the limitations imposed by the users, there were others with different nature. On one side, the client started to set some limits for the design of the graphics. Due to durability and cleaning reasons, they excluded the presence of vinyl graphics applied directly to the walls in the project. Their troubled experience made them leave it out from the possibilities. Furthermore, they also preferred to exclude the use of stencils and paintings since, for maintenance reasons, the dorms' walls are repainted every two years. This narrowed down a lot the design possibilities and requested a focused research on the different hanging possibilities of the signs, to find out the most suitable for maintenance and to respect the given budget.

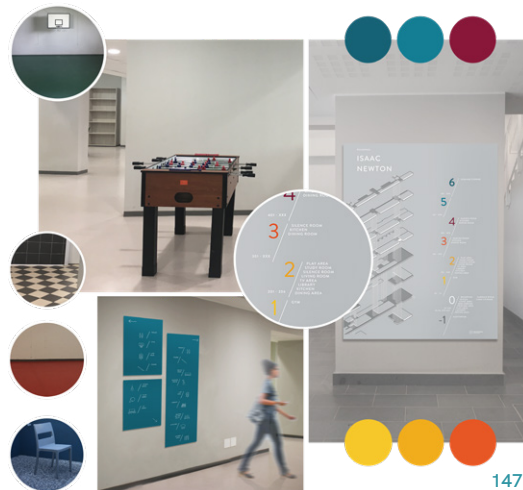
A further limitation comes from the spaces; the different spatial composition made us change several times the dimensions and disposition of the signs. Moreover, each dormitory has diverse materials which have led to a colour differentiation in the three dormitories. If Adolf Loos dormitory, in Lecco, is homogenous concerning materials and colours of the structure it is not possible to say the same thing of La Presentazione, in Como, an ancient monastery of the 19th century, recently refurbished by the Politecnico. In the first case, the selected colour has been a burgundy red, which fits well the grey and yellowish walls crossed by a brown Greek fret, and followed the previous colour guidelines in continuity with the existing numbers on the doors and of the old icons in the space. In Como case, since the refurbishment tried to be conservative and the architects highlight the functional areas using different colours - the doors of the common areas are red and, in some points, also the floor is made by a reddish PVC, the walls of all the kitchens are orange, while the rooms have got a dark grey tending to blue colour and, in some parts, yellow corridors - a neutral colour has been chosen, a dark grey that in the colour wheel tends



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fig.145 Moodboard of Lecco developed during the first phases of *Comunicare Ospitando* project

fig.146 Moodboard of Como developed during the first phases of *Comunicare Ospitando* project

fig.147 Moodboard of Newton developed during the first phases of *Comunicare Ospitando* project

to a greenish tone and makes a perfect contrast with La Presentazione walls and materials. Compared with these two dormitories Newton represented the perfect white canvas. Like other PoliMi dormitories, Newton underwent a massive refurbishment and the materials and colours used are homogeneous. The white and light grey walls, the white doors, and the neutral floor make it the perfect place for experimenting with colours. Since the site does not reflect its own identity, to each floor, it has been assigned a different colour.

4.3.5 The process

Back in 2005, one of the leading authorities in the use of strategic design, the Design Council, provided an interesting definition and graphic representation of a design process: the double diamond (Design Council, 2005). It is used to represent the iterative nature of a design process where the ideation of ideas (divergent thinking) and their refinement to the best ones (convergent thinking) happen twice. The process is divided into four parts: discover, define, develop, and deliver. Inserting the design process of environmental communication in this kind of representation can provide a clear understanding of the process, state of the art, and future developments.

Discover

This phase corresponds to October when we collected the first insights and started to have a clearer idea of the dorms' environments.

Define

From November to December we defined the objectives of the project, we discovered what were the feasible solutions and the significant aspects both for the users and the client.

Develop

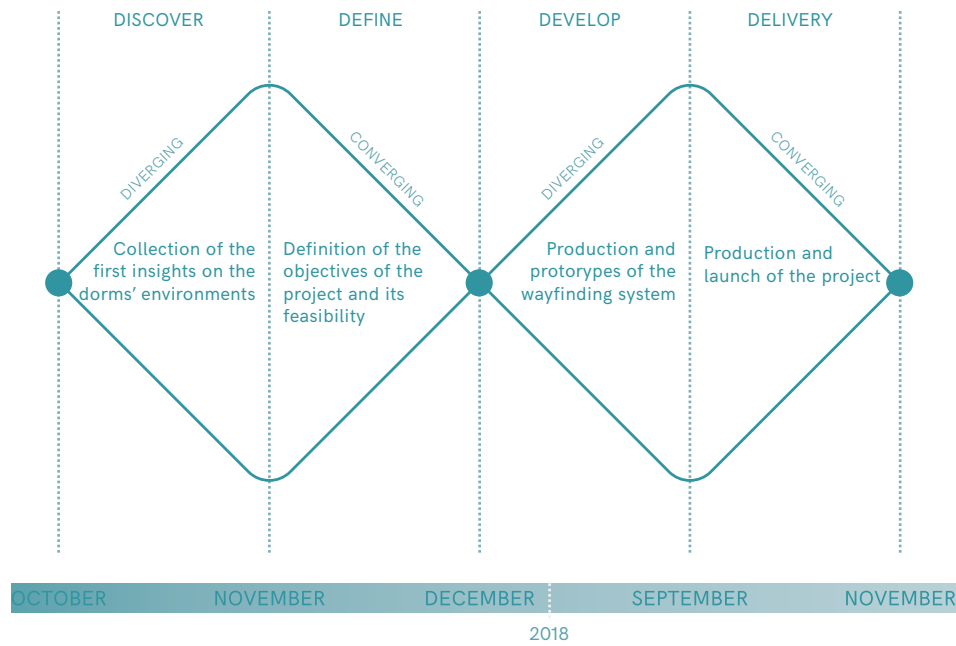
For the definition provided by the Design Council, this is the phase in which "concepts are created, prototyped, tested and iterated". It represents the phase where our design is right now. It is a phase that lasted from January to October and that it will

end, optimistically, before the end of 2018. We have produced and prototyped the wayfinding system three times since now, and there is the need to iterate again to develop the best solution.

Delivery

This phase will coincide with the production and launch of the project

28
The process of *Comunicare Ospitando* inside the double diamond



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fig.148 Final on-site visit in Como
fig.149 On-site visit in Lecco

4.3.5.1

Focus: tools

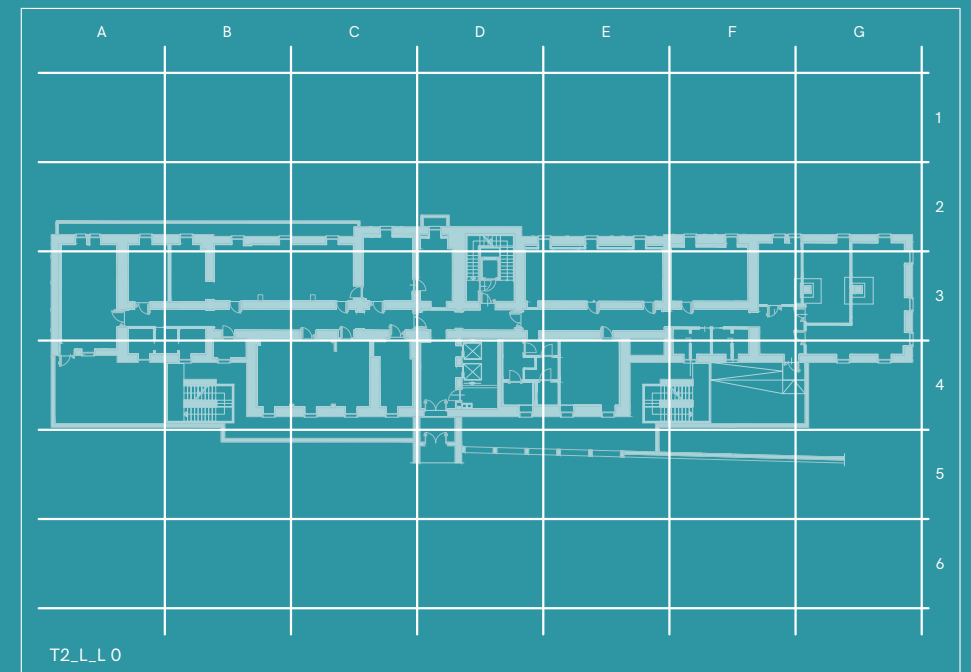
During the design different tools with diverse nature have been employed, they have been helpers in taking, organising, checking, and giving information and accuracy.

Positioning plan

On-site visit tool

- Taking information
- Organising information
- Checking information
- Giving information

Over each floor plan, we positioned a grid that resembles the one used in the battleship game. This tool allows to put the sign in the space and quickly identify its position as the result of the coordinates of a letter and a number.



Pictograms' abacus

On-site visit tool

- Taking information
- Organising information
- Checking information
- Giving information

The pictograms' abacus is a sort of legend, containing all the graphics of the icons, their names and an acronym to fasten and simplify the job of signing the typology of the panels in the excel matrix.

 TOILET = T	 TOILET DIS= T DIS	 ELEVATOR = E	 UP STAIRS = U	 DOWN STAIRS = D
 RECEPTION = R	 EXIT = EX	 LIBRARY = L	 DINING AREA = DA	 KITCHEN = K
 BEDROOM = B	 COFFE AREA = C	 PLAY AREA = P	 LAUNDRY = LAU	 GYM = G
 BIKE GARAGE = BG	 AUDITORIUM = A	 STUDY ROOM = S	 SILENCE ROOM = SR	 MUSIC ROOM = M
 TV AREA = TV	 DRYING AREA = DA	 LINEN STORAGE = LS	 LAGGUAGE ROOM = LR	 CHANGING R M = CRM CHANGING R F = CRF
 RELAX AREA = TRA	 FIRE EXTINGUISHER = F	 VIDEO SURV = V	 NO SMOKING = NS	 SMOKING AREA = SA
 METRO STATION = MS	 GARBAGE ROOM = GR	 UFFICI = UFF	 LOCALI TECNICI = LT	 PRINTING AREA = PA




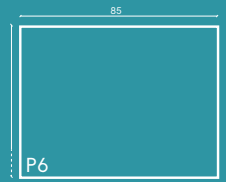
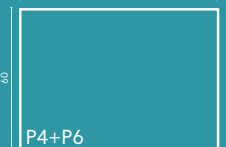
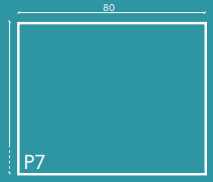






Signs' abacus

On-site visit tool

- Taking information
- Organising information
- Checking information
- Giving information

The signs' abacus contains all the typologies of signs and their dimensions. It is beneficial during the on-site visit when the names of all the signs are still not clear to everyone.

Usually, this tool is developed after having collected data from web and books, to get an overview of the existing cases and to take some inspiration.

SIGNS' ABACUS	
P1- Identificaton only icon (20x25)	
P12- Identification sign with arrow for more function (20x...)	
P13- Directional paired sign with arrow (20x...)	
P6- Directional sign for stairs (85x...)	
P4+P6- Como's directional sing for stairs (85x60)	
P7- Elevator sign (80x...)	
P14- Sign in front of the elevator (20x...)	
P8- Entrance sign (...x110)	
P9- Safety sign for telephone	
P10- Safety sign for plan	
PRELT- Technical rooms (Ø 20)	
PRE- vinyl graphic for bathrooms or changing rooms (Ø 20)	

Focus: project evolution

Since the project is lasting for over one year, changings are a lot and involve all the different components of the signs. This enrichment will focus on all the design aspects that changed with the passing of time.

Typography

The selected font is Brandon Grotesque which is already in use for the brand identity of Politecnico. If at the beginning too many different dimensions and weights were selected, it is now possible to count four different heights and two weights, regular and medium.

Brandon Grotesque / Regular
Aa Bb Cc Dd Ee
Ff Gg Hh Ii Jj Kk Ll
Mm Nn Oo Pp Qq
Rr Ss Tt Uu Vv Ww
Yy Zz
0 1 2 3 4 5 6 7 8 9

Aa

Brandon Grotesque / Medium
Aa Bb Cc Dd Ee Ff
Gg Hh Ii Jj Kk Ll
Mm Nn Oo Pp Qq
Rr Ss Tt Uu Vv Ww
Yy Zz
0 1 2 3 4 5 6 7 8 9

Aa

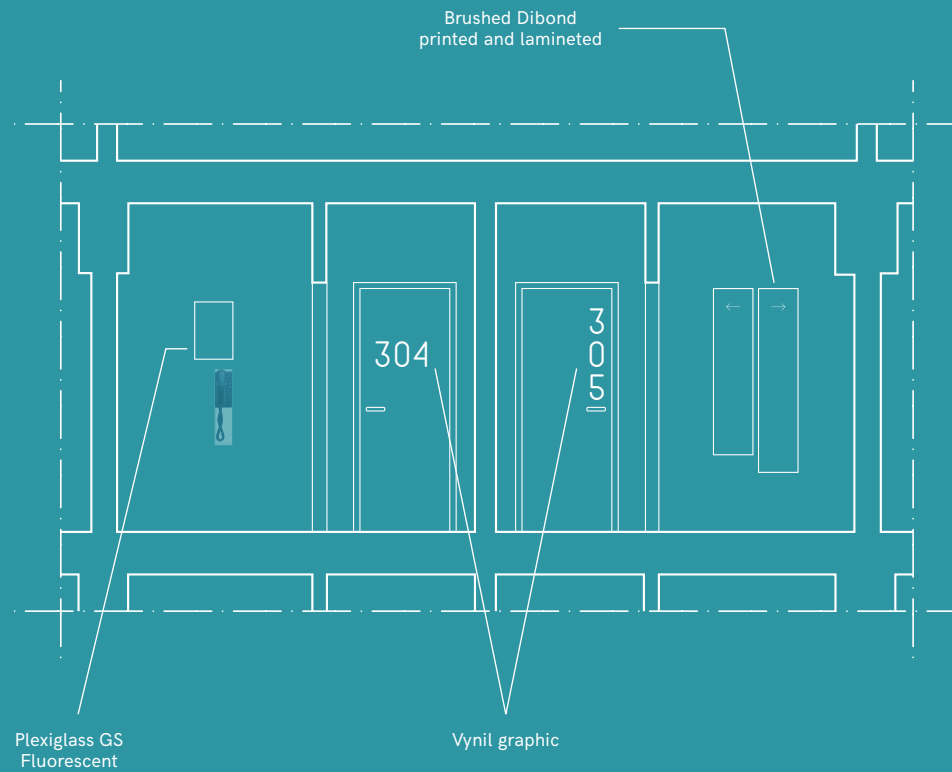
	A	A	A	A
Text height	50 pt	100 pt	200 pt	1200 pt
Width/height ratio	60 pt	120 pt	AUTO	AUTO
Thickness/height ratio	100	35	0	0
Maximum reading distance	12 mm	25 mm	50 mm	300 mm
Visual impact distance	0,9	0,9	0,9	0,9
Text color	0,12	0,12	0,12	0,12
	4,8 m	10 m	20 m	120 m
	1,2 m	2,5 m	5 m	30 m
	R=255 G=255 B=255 #ffffff			

Materials

Due to the different restrictions, but also for its look and feel and proprieties, the chosen material for the signs is Dibond. It is composed of two aluminium sheets paired together with polyethene in the middle; it is durable, resistant, easy to clean, and ideal for digital printing.

Vinyl graphics are used only to point out the room numbers and the technical rooms.

Finally, a coloured fluorescent Plexiglas is used for the safety system.



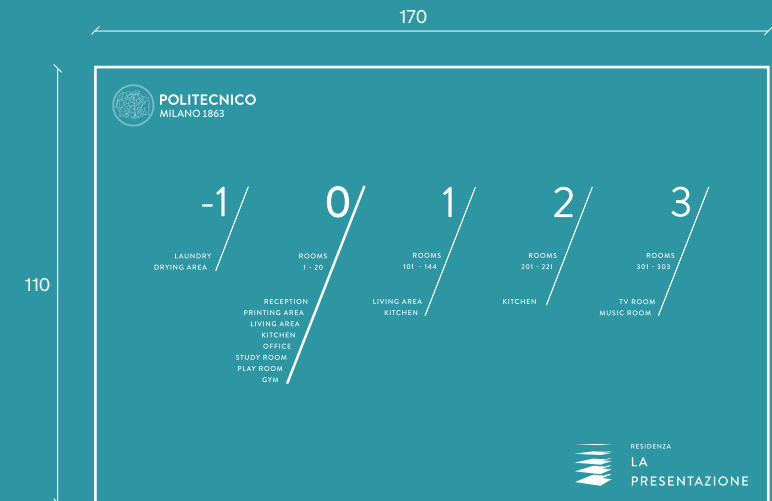
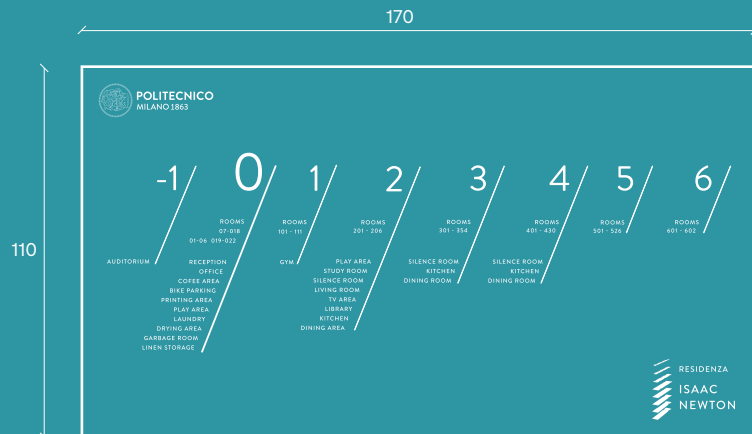
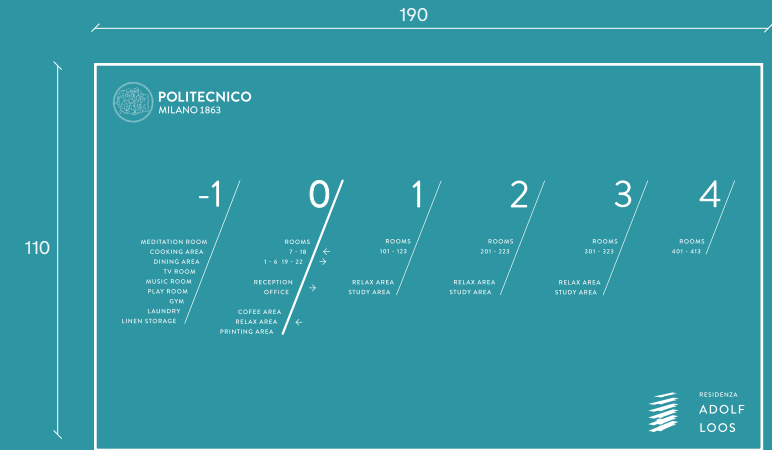
The different changes of all the elements listed above have affected the evolution of the signs. Nonetheless, the most significant transformation was the layout one. Along with all the process, the signs changed dozens of time, some of them even disappear. From ten different signs, we ended up with eight that share the same look and feel. The next part of this paragraph will briefly explain the function of each panel and provide a graphical evolution of it.

P8

Orientation sign

- Milano
- Lecco
- Como

The P8, or entrance sign, is the first visible panel once someone enters the dormitory. It belongs to the family of the descriptive or orientation signs since it is used to give a general overview of the dorm and its services. The layout is simple. Floors are distributed horizontally and divided by graphic diagonal elements where all the functions are aligned. In the case of Newton Residence, where all the floors are characterized by different colours, it was taken the decision to design the background of that panel in white. With a view to make this wayfinding system "for all" was important enable everyone to distinguish all the different colours. Indeed, this is the only example of a panel with more than two colours together. In the case of Lecco, some arrows are added to point out the directions of the functions of floor zero, since space does not allow to install any other kind of directional sign. The panel is characterised by the logo of Politecnico and by a personal logo of the residence composed by a simplified axonometric representation of the building.



P1

Identification sign

- Milano
- Lecco
- Como

This is the most straightforward identification sign that usually stays near a door or an entrance and points out the function of the space. It is composed by a pictogram with a written description corresponding to the function.

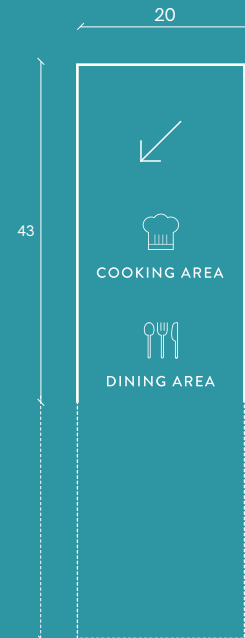


P12

Identification sign

- Milano
- Lecco
- Como

P12 is an identification sign very similar to the P1. We can call it its older brother since their layouts share lots of similarities. It is used in critical situations when the functions in a room or space are more than one.

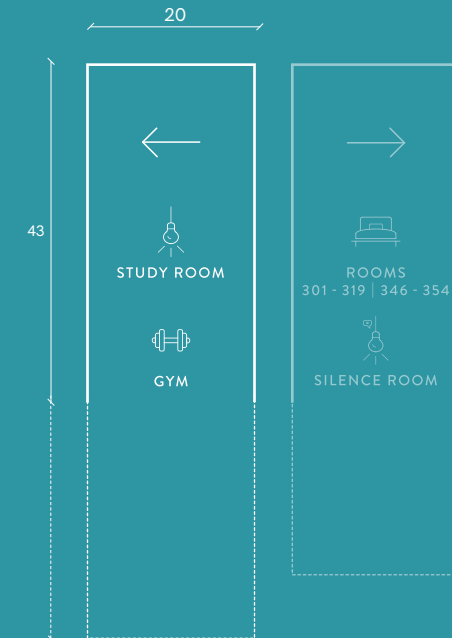


P13

Directional sign

- Milano
- Lecco
- Como

This is one of the typologies of signs that are not shared with all the dormitories, in fact, it is present only in Lecco and in Milano. P13 is a directional sign which contains lots of information for both directions, for this reason, it is composed by two panels: one with a straight arrow that points to the right, and the other one with a straight arrow pointing to the left. This is different from the P12 because it shows all the services that are not directly next to that door or gap, but it shows the direction where to go to find them.



P6

Directional, identification and orientation sign

- Milano
- Lecco
- Como

The P6, present in Lecco and Milano, is the stairs' sign, it shows the functions of the current floor and the functions of the upper and lower floors. For this reason, it is possible to say that it has a triple nature. It is an identification sign because it identifies the current floor, it is a directional sign because it points out the functions of the upper and lower floor, and, finally, it is an orientation sign because it allows the user to have an overview of three floors in one shot. When the space is too little for the complete P6; it is possible to design a second version that divides the sign into three parts. The current floor stays in the same position as the first version, while the other two parts are always placed on the mezzanine, on the wall adjacent to the stairs that lead to the indicated floor.



P4+P6

Directional and identification sign

- Milano
- Lecco
- Como

Understandably, the name of this sign suggests its hybrid nature. Originally the P4 panel was a directional sign used in the rooms' corridors to point out the numbers and the functions. P4+P6 is a particular sign that can be found only in Como, where the structure of the space would make a P6 useless. As a matter of fact, in La Presentazione dormitory, the landings take to two different corridors leading to the rooms; unfortunately, these corridors are usually closed with double doors. In this particular occasion, it is not enough to show the functions of the floor, but it is necessary to guide the users to them. This panel has a double nature: it is an identification sign because it identifies the current floor, and a directional sign because it points out the functions' directions.



P7

Directional, identification and orientation sign

- Milano
- Lecco
- Como

P7 is the elevator sign, showing the floors of the building, their functions, and also highlighting the current floor. These attributes make it a sign with the triple nature of identification, direction, and orientation.



P14

Identification sign

- Milano
- Lecco
- Como

The P14 sign can be found only in Lecco and in Como in front of the elevator. It is an identification sign since it provides the current floor number and the functions that can be found there.

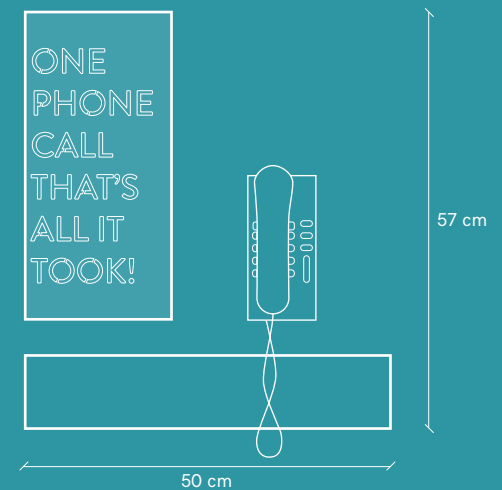
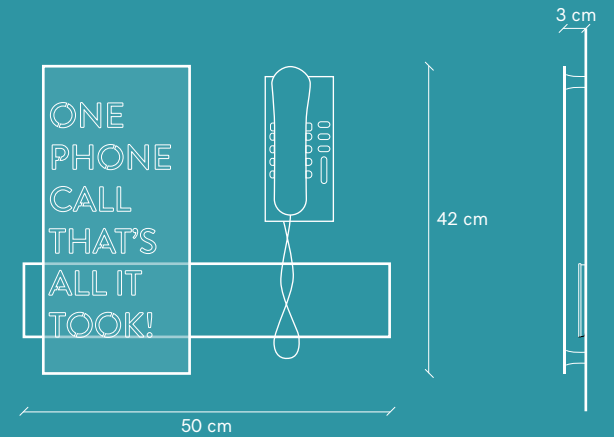


P9

Regulatory sign

- Milano
- Lecco
- Como

The P9 is a regulatory sign and it is connected to the phones that can be found in the hallways and are used to call from each floor the reception or the emergency numbers.. It is present in two options. The first one where a fluorescent panel with the laser-cut slogan "One phone call that's all it took" is juxtaposed to a rectangular stripe of white Dibond. The second one comprising a composition of the fluorescent panel and the white Dibond one.



P10

Regulatory sign

- Milano
- Lecco
- Como

The P10 is a regulatory sign and has two different versions like the P9. The first one consists in a fluorescent panel, containing one of the two possible laser-cut slogans "Be aware know where" or "This is not a drill", on the side of the plan.

In the second option the fluorescent panel stays over the plan.

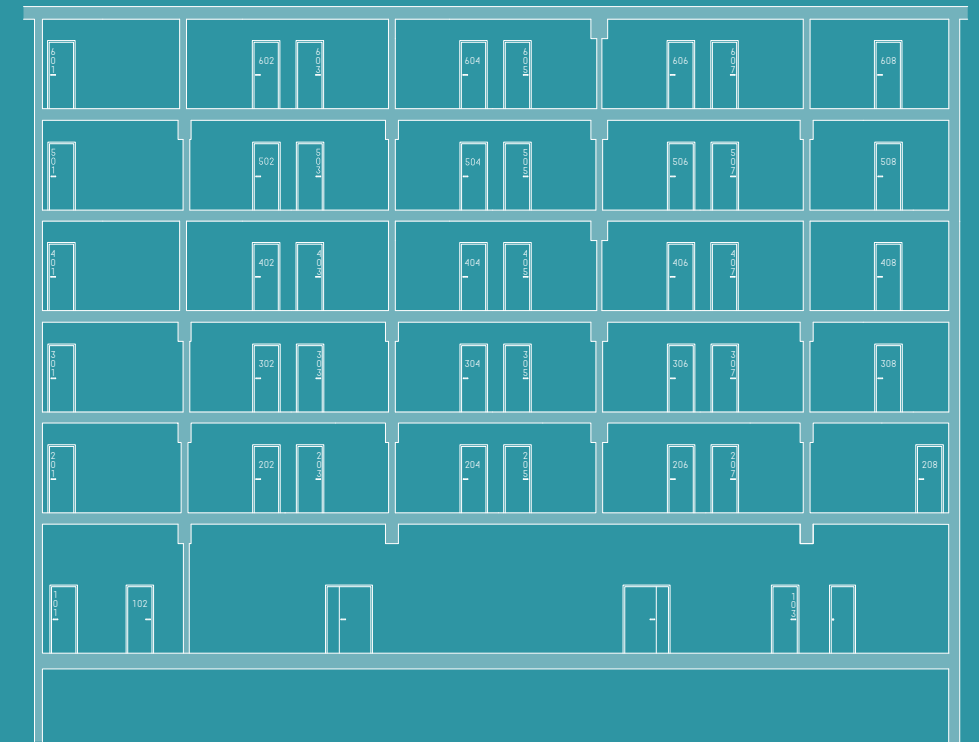


Vinyl graphics for the room numbers

Identification sign

- Milano
- Lecco
- Como

The room numbers, in Como and Milano, are made in a vinyl graphic. To create a pleasant visual play number with a vertical layout are interrupted with ones with a horizontal layout. The effect is visible on the front view.



Vinyl graphics

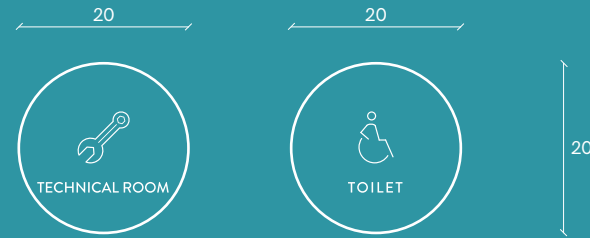
Identification sign

- Milano
- Lecco
- Como

All the residences have got numerous technical rooms, accessible only to authorised people. To make them immediately recognisable, the client allowed us to design some vinyl graphics to attach to the doors. They are the only identification signs with a circular shape.

It may also happen that there is not enough space to place some signs, particularly bathrooms or changing rooms. In this case is possible to design a circular vinyl graphic to put on the door.

Lecco represent a particular case since here all the bathrooms graphics have this layout.



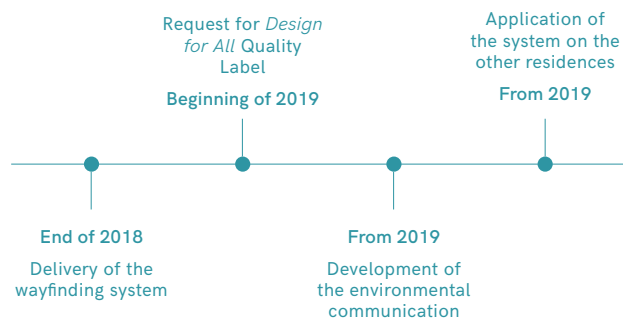
The evolution of each sign considers the application of rules and precautions to make it eligible for a DfA label. Beyond readability and installation issues the design considers second confirmation levels. For instance, the entrance sign in Newton provides, not only the number and functions at each floor but also the colour of it. In this direction, all the signs of Lecco and Como, that are all monochromatic, could have a graphic symbol to distinguish one floor from another.

4.3.6 Final thoughts and future developments

The initial brief has envisioned a timeframe of four months to complete the project of the environmental communication. Many factors have influenced the extension of time; the initial study of possible solutions since the design team has never designed a wayfinding system before; the concurrence of other tasks; the focus on some aspects that, retrospectively, were not so relevant in that moment; the request of a DfA label; and the presence of numerous actors with different thoughts.

Before the end of 2018, the delivery of the sign system is expected, together with the initial documentation to obtain the DfA label. Subsequently, a new double diamond will open up to design in the best way all the other aspects of environmental communication, namely the social engagement elements. Compared to the phase in which I had the pleasure to participate, I believe that this last need more co-design with the users to better understand how they see their environment and how they would like it to be.

Even though the process that has been done may appear too slow and irrelevant, it is a clear sign of the PoliMi commitment towards the attempt of creating environment and services able to instill the Institution's values.



4.4 *Comunicare Ospitando*: the videos

The paragraph focuses on the project of three institutional videos for PoliMi Housing Service. Starting with an introduction to the importance of storytelling, it will then explain the phases of the project and its results.

4.4.1 Storytelling for successful brand experiences

When someone wants to buy a product, two things usually happen, searching online for customers' reviews and asking advice to friends. What is going to be read or listened is someone else's experience with the product, the more this experience has proven to be good or bad the more the review is long and articulated. The few lines of text are nothing more than a small narrative, used to give sense and communicate with a particular kind of audience. We can, therefore, say that our experience with a product (or a service) creates a more or less memorable narrative (Forlizzi & Ford, 2000) and that is in the brand interests to create a memorable one. Consumption becomes a story transforming the pure marketing in narrative marketing and all the storytelling tools become instruments for creating value, approaches to establish relations, and codes to share ethic and aesthetic messages (Fontana et al., 2010). Narrative marketing is not about using digital means to create successful marketing but exploiting the power of web storytelling to create a narrative system which composes a brand tale in on-line and off-line channels (Sassoon, 2012).

“Storytelling is natural and easy and entertaining and energizing. Stories help us understand complexity. Stories can enhance or change perceptions. Stories are easy to remember. Stories are inherently non-adversarial and non-hierarchical. They bypass normal defense mechanisms and engage our feelings.”

(Denning, 2012, p. XV)

Creating a brand story and identity is a designer's job, it is thus not surprising the fact that stories and design share lots of familiar elements (Gruen et al., 2002). Good stories have well-studied characters with typical temperament, values, fears, weaknesses, and overall goals. At the same time, while designing, it is so important to understand the users that there is also a tool, the creation of personas, that helps to outline whom we are designing for and his needs. Stories always include lengthy descriptions of the time and place to help the reader getting into the context; likewise, a designer should understand the environment in order

to develop a valuable solution. Stories have a main character with a clear goal that has to face lots of conflicts and obstacles to accomplish it, in the same way, designers face many difficulties before the project delivery. Strong motivations usually move the main characters in their adventure, and the same strong motivation should move designers to design features that the user would enjoy.

Previously in the text, the necessity for brands to listen to the audience has been underlined; this leads to an interesting bivalent role of the designer defined in *The Pearl Diver* as *storyteller* and *story-listener* (Bertolotti et al., 2016). It is, in fact, true that, before being able to tell meaningful and innovative stories, it is essential to listen, both in the real sense of the word and with the observation of people's experiences and take advantage of that.

From these last considerations, it is possible to see the urgent need that companies and brands have nowadays, shifting from a classical way of advertising their product and services to the so-called dynamics of *engagetising* (Sassoon, 2012) as a new way of advertising, a hybrid of entertainment, narrative blogging, and engagement. With this new kind of narrative, is possible to design memorable stories that remain in the customers' heads as compared to the competitors' ones, thanks also to a smart positioning on the right channels.

It is possible to recognise three different typologies of stories that a brand can narrate: stories of the brand itself, stories of the brand relationship with its customer, and stories that instill the values of the brand in its customers (Sametz & Maydoney, 2003). These different kinds of narrative have various strategic scopes which vary from making an organisation recognisable, creating trust, explaining possible misunderstandings, reducing to essentials difficult processes, explaining experiences, making call-to-actions, building communities, and creating a strong bond of loyalty. Inserting stories in social media platforms allow people to navigate them (Piredda et al., 2015) moving from one media to another, and also to share contents with their community and friends applying the principle that Jenkins²⁰ called *spreadability*.

In the second chapter, we had the opportunity

20. Henry Jenkins is an American media scholar and essayist, and current Provost Professor of Communication, Journalism, Cinematic Arts and Education at the University of Southern California. He is author and editor of seventeen books on media and popular culture, his works on transmedia storytelling and participatory culture have great success and influence all over Europe.

to understand the importance of new ways of communication for Universities, like all the other companies and brands they need to create compelling stories and spread them in the right channels.

4.4.2 The brief, the actors, and the design problem

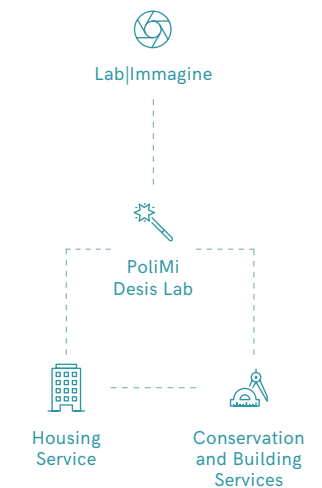
The Conservation and Building Services realised the need for a communication system able to bound together the physical space and the digital one and they inserted this project phase inside the brief under the name of *GuardaMI*. The client request is made up of two different typologies of videos: the first one more connected to an institutional communication, and the second one connected to the facility management of the dorm. This last is a theme that Conservation and Building Services feels particularly close to its heart since the management is one of the areas where more money and resources are invested. When we refer to facility management, we talk about all the maintenance aspects, the theme of security, the rules of the residence, the use of spaces and energy, and all the behavioural aspects. The necessity of having a series of video that can communicate to the users the life and the services of Politecnico dorms arise from the unsatisfactory nature of the information that the existing website is providing. Many procedures are roughly explained, and the personal page of each dorm shows only a meaningless photo and a quick explanation of all the dorm's services.

In this phase the involved stakeholders change a little bit, the Conservation and Building Services, after the brief framing, take a step back to make way for PoliMi Housing Service. The other actor involved is Lab|Imagine, in charge of producing the videos.

In this occasion, the brief of the client was more general and a little bit more chaotic compared to the previous one. For this reason, after the initial analysis, it was interpreted and rephrased obtaining four different precise categories of videos:

- *Institutional and procedures*: videos aimed at showing the institutional image, the environment and the services of each dormitory with a particular

30
Actors of *Comunicare*
Ospitando wayfinding
project



focus on necessary procedures and some pills able to exemplify these last.

- *Tips*: videos aimed at explaining how to deal with everyday small problems, and, also, videos showing rules of conduct and emergencies management.

- *Engagement*: videos aimed at explaining the context of each dormitory, of the life of its internal community and the connection with the neighbourhood.

- *Feedback*: videos aimed at collecting precious testimonies of previous dorms' inhabitants. Ideally, in the future, they should be linked to a digital platform.

These new categories identify better the typologies and allow to answer to different users' needs.

4.4.3 Videos: some case studies

The internet is full of examples of videos able to successfully portray a service or an environment. The hospitality industry and universities have discovered new storytelling possibilities thanks to the advent of videos. This paragraph analyses some exciting case studies connected to the four categories extracted from the initial brief.

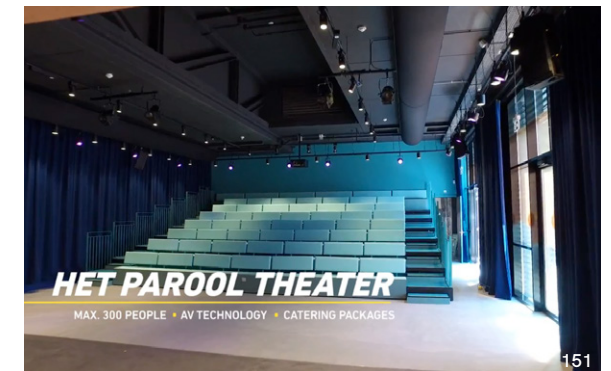
For the *Institutional and procedures category*, three videos, produced by *The Student Hotel*, a hotel based on the concept of hybrid hospitality that welcomes students but also business people, have been selected. Their online communication is well studied throughout their six channels: *Facebook*, *Twitter*, *Instagram*, *Youtube*, *Linkedin*, and *Flickr*.

The TSH adventure starts with the Complete Connected Community
The Student Hotel
2017



The first selected video²¹ it is quite short, lasting only 1:37 minutes, and it is used to explain with a semi-formal tone of voice the check-in day. On this occasion, they spread several video booths in all the hotel in the selected country so that students can connect even if they are not in the same location. The video shows the user the lively and international feeling of the place and the power of its community.

The meeting rooms of Amsterdam Student Hotel
The Student Hotel
2018



The second selected video²² is different from the other, it lasts 39 seconds and has a more formal tone of voice. Its primary aim is to describe the environment of the place, providing the name of the space, the maximum amount of people that can use it, and all the eventual services and functions of the environment. In this way, users can have, with a rapid video, an overview both of the spaces and the services of the place that is going to be their home for a period of their life.

21. The Student Hotel. (2017). *The TSH adventure starts with the Complete Connected Community*. Retrieved from www.youtube.com/watch?v=Vm3AwqTEc5Y

22. The Student Hotel. (2018). *The Student Hotel | Amsterdam City | Meeting Rooms*. Retrieved from www.youtube.com/watch?v=j1ipcZIs3gw

Charlie talks about the gym

The Student Hotel

2017



The last video ²³ is very similar to the second one both for the duration, 39 seconds, and for contents since it shows with a semi-formal tone of voice the gym of the Student Hotel in Rotterdam. Here the guest can not only appreciate the environment but even start to become familiar with the people of the staff since is one of them that presents and describe the gym.

These three examples represent powerful cases of how an institution can show to its users' services and environments quickly and effectively.

For the *tips' category*, two videos, that are very different from each other, but they share the same formal tone of voice, have been selected. Since this kind of videos needs to suggest rules of conduct, it is more advisable to use a tone of voice that is not imperative so that students can perceive them as suggestions and not orders. Also, social media consider a communication that is simpler and more colloquial and even for universities and institutions it is recommended to have a less institutional tone of voice.

How to escape from an anaconda

Tendril

2016



The first quick graphic-animated²⁴ video of 22 seconds shows the instructions for escaping to an anaconda. This can sound with no-sense apparently, actually this is part of a series of videos produced in 2017 by the Mount Pleasant Group Cemeteries that wants to help people celebrate and not mourn the death. The campaign slogan is "The more you live, the more you leave to remember", the series is collected in a website not-yet.ca and, together with other facts, suggest how to avoid death and use the time to early prepare the final goodbye. This represents a compelling case of tips given in an ironic way playing on funny contradictions.

Simo the Everyday Hero: changing fuses

HOAS_ñ

2015



The second video²⁵ is more connected to the theme of dormitories; it is part of a series of video of the Foundation for Student Housing in the Helsinki Region (HOAS), one of the primary providers of student housing for Aalto University. The title of the

23. The Student Hotel. (2017). *The Student Hotel | Charlie talks about the gym*. Retrieved from <https://www.youtube.com>

24. Tendril. (2016). *How to escape from an anaconda*. Retrieved from vimeo.com/180893568

25. Hoas_ñ. (2015). *1/26 Simo the Everyday Hero: changing fuses*. Retrieved from www.youtube.com/watch?v=bftZlhqHf4U

series, dated 2015, is *Simo the everyday hero* and is composed of videos talking about the everyday challenges of the tenants and how they are supposed to keep the house. The selected video explains how to change a light-bulb, even if the operation seems to be easy it can be a new practice for many users since the execution is different from other countries, like in the previous example this series of videos plays with contraries. In the beginning, we can see on both windows with the two scenes compared with the screen divided in two, a student shaving with an electric razor when suddenly the power goes out. At this point on the left's part of the screen, we can observe how to replace the bulb correctly and activate the power allowing the student to keep on shaving, while on the right side the student lights up a matchstick and start shaving using scissors. In this 57 seconds of video HOAS shows to the students how to deal with everyday small problems, and how to behave correctly and take care of the assigned home.

For the *engagement typology*, a video that was not connected to a dormitory or a university, but that can represent a neighbourhood community, has been selected.

Restaurant day

Restaurant day
2015



Before 2011 in Finland street food trucks were not allowed, people reacted to this prohibition organising a day where everyone can become a

chef and sell the food directly from their home sharing the map of the different places and homes on Facebook. Starting from 2011 this activity was recognised as legal, and every year in Finland and other parts of the world the Restaurant Day is celebrated. The video²⁶ shows this occasion where all the people reunite together and celebrate. Even in this case the duration of the video is quite short, around two minutes, but can show the look and feel of this neighbourhood celebration.

Irene and Vanessa

The Student Hotel
2017



Finally, for the *feedback typology*, another video²⁷ of The Student Hotel has been selected, where, in a brief interview of 1:12 minutes, two girls from Canada explain their experience and why they recommend living in the structure.

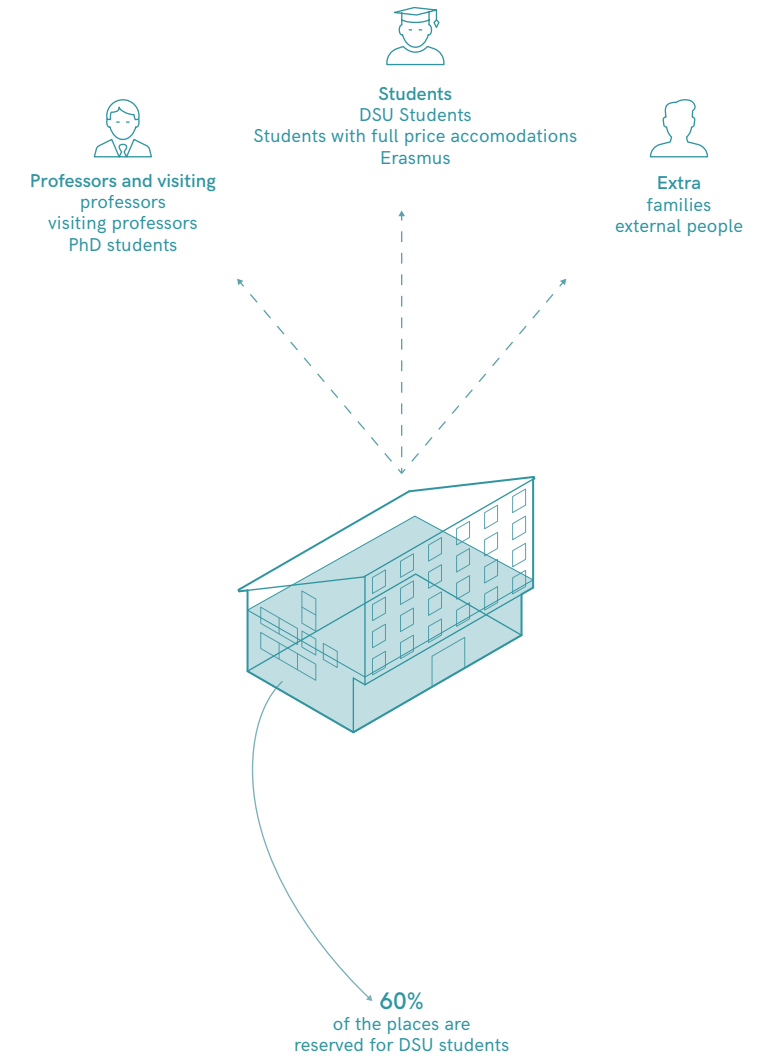
26. Restaurant Day (2015). *Restaurant day*. Retrieved from vimeo.com/64311109

27. TSH The Student Hotel. (2017). *Irene and Vanessa*. Retrieved from www.youtube.com

4.4.4 The users and other design restrictions

The four videos' typologies just described up here, answer to the needs of different users. Using some data from the PSSD studio, that referred to the number of people in Newton dorm in the year 2016-2017, it was possible to understand which kind of the population live in a dorm. In general, a dormitory, hosts three different clusters of users: the students that include DSU students, the students with full price accommodations, and the Erasmus students; the professors and visiting that includes professors, visiting professors, and PhD students; the extra that includes families and all the other people that are external to the dorm.

From the analysis of the institutional documents and the website of the student housing, it is easily understandable that each typology of user needs to have specific information in different timings. In particular, if the students with full accommodation, PhD and visiting professors are similar, the DSU students' category have a different timing. Since the 60% of the 2.000 places available are reserved to DSU students, the project is focused on the translation of the needed information into visual products for this last particular category. The main problem with the three produced videos was their strict connection to the DSU call, which caused not only restrictions but even delays created by procedures changing. From the supervisor's point of view, who was part of the Housing Service, the video could not use, whether in the written text or in the voice-over, a terminology that was different from the one used in the DSU call. Her concerns were mostly connected to the fear of confusing students even more on the procedures with the risk of mistakes and of slipping into future appeals. Indeed, the videos needed not only the approval of the Housing Services but also of the Web Area of Politecnico in charge both of checking the accuracy and appropriateness of the contents and of uploading them online. On the one hand, there was the necessity to meet the client requests and on the other to create a product that could be useful but also impactful for the users, also trying to convey to the students the message that PoliMi is a helper and that the residences are fresh and active places.



31
Users of a student housing

4.4.5 The process

According to Comunicare Ospitando brief, the so-called phase *GuardaMI* was meant to begin in September 2018 but, since the environmental project took longer than expected, it started in March 2018.

Compared to the wayfinding project the role changed a lot, resembling the strategist one, and the deadlines were respected; indeed, the videos needed to be published following a new institutional procedure concerning the request of accommodation by DSU students.

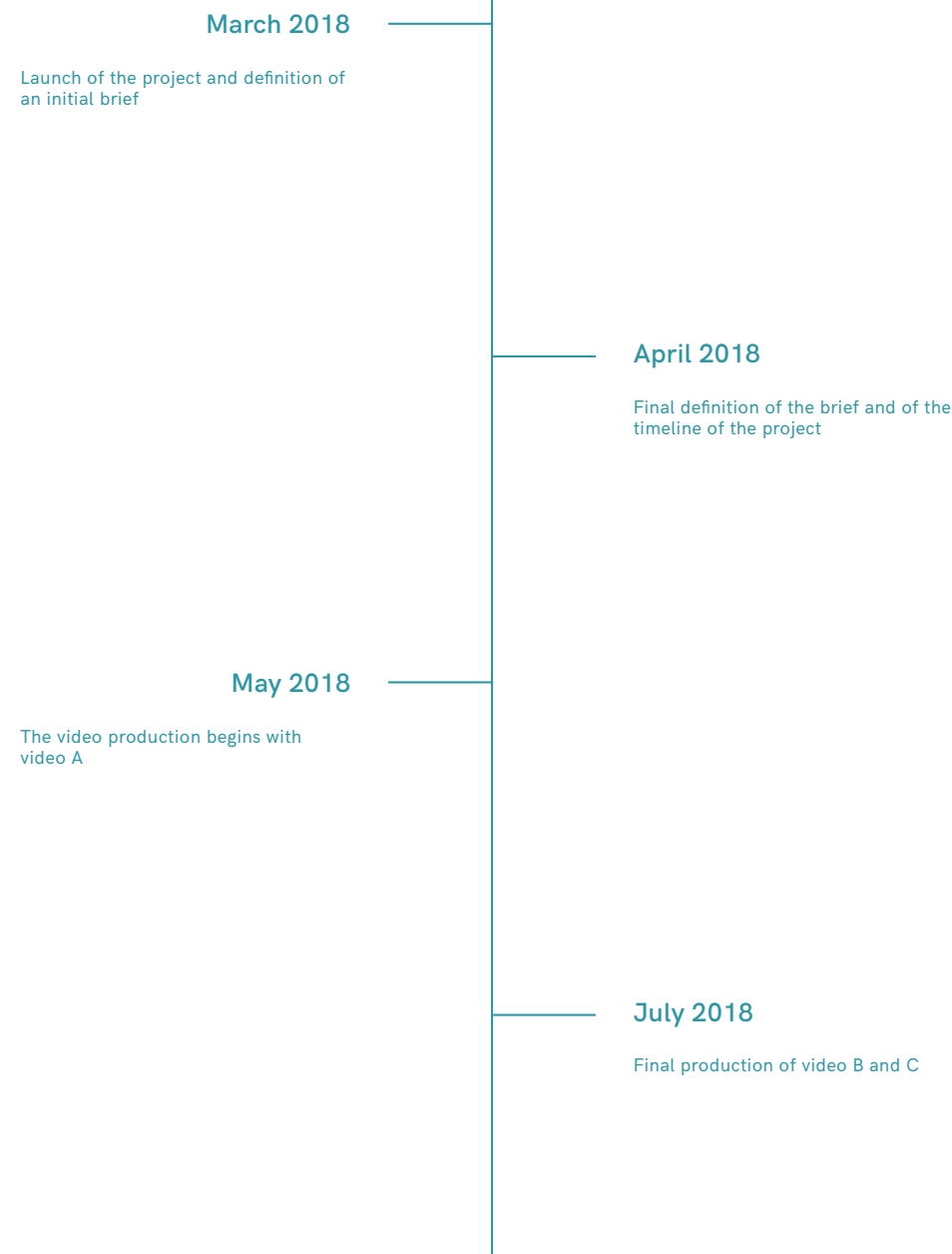
The old procedure caused many troubles to the DSU office since students used to remain in the ranking list until December. The new process was structured in three phases: on May 30, 2018, students needed to put in order of priority the dormitories on the online form. On July 15, 2018, students would receive an e-mail containing the future procedures to accept the accommodation within 48 hours. Finally, on August 22, 2018, students would receive the email containing the ranking result and the possibility to accept or decline the accommodation.

The video phase can be divided into two main parts, the first one, from March to April, involved the definition of the brief and a timeline of all the videos that needed to be produced. While the second part lasted from May to July corresponding to the collection of materials, design, and production of the three videos.

The results are three videos connected to the institutional and procedures typology for DSU students: video A containing a presentation of the residences and the request procedures, video B explaining the procedures for beneficiary students, and video C that illustrates the check-in phase.



fig.157 Definition of the videos' contents



Focus: tools









During the project different tools with diverse nature have been used as helpers in framing the brief, planning a timeline, and establishing a dialogue with both Lab|Imagine and the Housing Service.


Typologies of videos-users-journey matrix


- Framing the brief
- Planning a timeline
- Establishing a dialogue with the other actors


This tool relates the typologies of videos, the users, and a simplified journey divided into four phases - decision-making phase, check-in, stay, and end of the stay.

Rows and columns compose the matrix. Each row corresponds to a phase of the stay, each column corresponds to a typology of video, while in the cells that are formed there are the different icons of the actors. Reading the matrix is possible to understand the relations. For instance, during the decision-making phase, when a dorm is chosen among the others, there are three typologies of video that can help: the institutional and procedures, the engagement, and the feedback one. All these three are meaningful to students, while only the institutional and procedures one is meaningful also for professors and visiting and for the so-called extra, which in this case are mostly parents.

	INSTITUTIONAL AND PROCEDURES	TIPS	ENGAGEMENT	FEEDBACK
DECISION MAKING				
CHECK-IN				
STAY				
END OF STAY				


students


professors & visiting


extra

Unconventional user journey

- Framing the brief
- Planning a timeline
- Establishing a dialogue with the other actors

These three special user journeys, one for each actor, relate together the different time of the year with the typologies of the video.

Each user journey is divided into rows and columns; the first column explains the content of each row.

STUDENTS WITH DSU SCHOLARSHIP USER JOURNEY			
MONTHS	June - July	August	September
PHASES	Accommodation's booking	Accept the accommodation	Check-in
EXPERIENCE	Chiara does the application for the housing service inside the DSU scholarship (14 July or 11 August for the first years)	Chiara checks the final ranking list and discovers to have an accommodation (23 August or 12 September for the first years)	One week before the check-in, Chiara informs the Dormitory of his arrival through an online form and, on the given day, goes to the dormitory.
TOUCHPOINTS	Online Area of the Housing Service	Online Area of the Housing Service I.S.U. Politecnico di Milano	Online Area of the Housing Service
VIDEO TYPOLOGY	Institutional and procedures	Institutional and procedures	Institutional and procedures
INFO IN THE VIDEO	<ul style="list-style-type: none"> - presentation of the dormitory environments - how to book without scholarship - how rooms are assigned - future steps after the acceptance of the accommodation - methods of payment of the amount 	<ul style="list-style-type: none"> - how to accept the accommodation - how, where, and when to pay the deposit (400 €) - how to cancel the reservation - refunds for the booking cancellation 	<ul style="list-style-type: none"> - check-in timings - how to advise of the own arrival - needed documents - how to communicate the change of the date of the check-in - General Regulation for University Dorms - verbal on the conditions of the room

----- Title the title show to which user we are referring to

----- Months list of all the months of the year, from June to August of the subsequent year

----- Phases phases of the stay, from booking to leaving the accommodation

----- Experience summary of the user's experience

----- Touchpoints all the touchpoints the user get in contact with






----- Video typology typology of the video needed for the moment under consideration

----- Info in the video info that the video should contain





STUDENTS WITH DSU SCHOLARSHIP USER JOURNEY

MONTHS	May			October	September	August	June - July	August	July	June	August	
	June - July	August	September									
PHASES	Accommodation's booking	Accept the accommodation	Check-in	Check-in	Check-in	Accept the accommodation	Accommodation's booking	Renewal results	Booking renewal	Renewal results	Holiday	
EXPERIENCE	Chiara does the application for the housing service inside the DSU scholarship (14 July or 11 August for the first years)	Chiara checks the final ranking list and discovers to have an accommodation (23 August or 12 September for the first years)	One week before the check-in, Chiara informs the Dormitory of his arrival through an online form and, on the given day, goes to the dormitory.	Chiara checks the final ranking list and discovers to have an accommodation (23 August or 12 September for the first years)	One week before the check-in, Chiara informs the Dormitory of his arrival through an online form and, on the given day, goes to the dormitory.	Chiara checks the final ranking list and discovers to have an accommodation (23 August or 12 September for the first years)	Chiara does the application for the housing service inside the DSU scholarship (14 July or 11 August for the first years)	Chiara prepares all the documents to request the DSU scholarship	In June Chiara decides to extend his stay	Chiara prepares all the documents to request the DSU scholarship	Chiara leaves the dormitory for the summer holidays	
TOUCHPOINTS	Online Area of the Housing Service	Online Area of the Housing Service I.S.U. Politecnico di Milano	Online Area of the Housing Service	Online Area of the Housing Service	Online Area of the Housing Service	Online Area of the Housing Service I.S.U. Politecnico di Milano	Online Area of the Housing Service	Online Area of the Housing Service	Online Area of the Housing Service	Online Area of the Housing Service	Online Area of the Housing Service	
VIDEO TYPOLOGY	Institutional & procedures	Institutional & procedures	Institutional & procedures	Institutional & procedures	Institutional & procedures	Institutional & procedures	Institutional & procedures	Institutional & procedures	Institutional & procedures	Institutional & procedures	Institutional & procedures	
INFO IN THE VIDEO	<ul style="list-style-type: none"> - presentation of the dormitory environments - how to book without scholarship - how rooms are assigned - future steps after the acceptance of the accommodation - methods of payment of the amount 	<ul style="list-style-type: none"> - how to accept the accommodation - how, where, and when to pay the deposit (400 €) - how to cancel the reservation - refunds for the booking cancellation 	<ul style="list-style-type: none"> - check-in timings - how to advise of the own arrival - needed documents - how to communicate the change of the date of the check-in - General Regulation for University Dorms - verbal on the conditions of the room 	<ul style="list-style-type: none"> - check-in timings - how to advise of the own arrival - needed documents - how to communicate the change of the date of the check-in - General Regulation for University Dorms - verbal on the conditions of the room 	<ul style="list-style-type: none"> - check-in timings - how to advise of the own arrival - needed documents - how to communicate the change of the date of the check-in - General Regulation for University Dorms - verbal on the conditions of the room 	<ul style="list-style-type: none"> - how to accept the accommodation - how, where, and when to pay the deposit (400 €) - how to cancel the reservation - refunds for the booking cancellation 	<ul style="list-style-type: none"> - presentation of the dormitory environments - how to book without scholarship - how rooms are assigned - future steps after the acceptance of the accommodation - methods of payment of the amount 	<ul style="list-style-type: none"> - how to do the check-out - what is the verbal of check out - of to obtain back the deposit 	<ul style="list-style-type: none"> - feedback videos 	<ul style="list-style-type: none"> - how and when to renovate the booking - what happens to the deposit - by when the results for the new request will come out 	<ul style="list-style-type: none"> - how to do the check-out - what is the verbal of check out - of to obtain back the deposit 	
	Stay			Tips and Engagement								

STUDENTS WITHOUT A SCHOLARSHIP USER JOURNEY

MONTHS	June - July	August	September	October	May	June	July	August
PHASES	Accommodation's booking	Accept the accommodation	Check-in	Stay	Booking renewal	Renewal results	Holiday	
EXPERIENCE	Marco requests an accommodation on the online area of the Housing Service after having seen the presentation videos	The request of the accommodation is confirmed, Marco accepts it and pays the deposit	One week before the check-in Marco informs the Dormitory of his arrival through online form and, on the given day, goes to the dormitory	Marco begins his life in the dormitory. Thanks to the explanatory videos on the rules of conduct he knows how to deal with dangerous or difficult situations. Moreover he takes part in the creation of videos during the neighborhood events.	In June Marco decides to extend his stay	Marco receives a positive answer, the following year he will be able to come back in the dormitory	Marco leaves the dormitory for the summer holidays	
TOUCHPOINTS	 Online Area of the Housing Service	 Online Area of the Housing Service I.S.U. Politecnico di Milano	 Online Area of the Housing Service		 Online Area of the Housing Service	 Institutional email		
VIDEO TYPOLOGY	Institutional & procedures	Institutional & procedures	Institutional & procedures	Tips and Engagement	Institutional & procedures	Feedback	Institutional & procedures	
INFO IN THE VIDEO	- presentation of the dormitory - dormitory environments - how to book without scholarship assigned - future steps after the acceptance of the accommodation - methods of the payment of the amount	- how to accept the accommodation - how, where, and when to pay the deposit (400 €) - how to cancel the reservation - refunds for the booking cancellation	- check-in timings - how to advise of the own arrival - needed documents - how to communicate the change of the date of the check-in - General Regulation for University Dorms - verbal on the conditions of the room	- video tips with rules of conduct - video tips dealing with security issues - videos able to picture the neighborhood's and the dormitory's life	- how and when to renovate the booking - what happens to the deposit - by when the results for the new request will come out	- feedback videos	- how to do the check-out - what is the verbal of check out - of to obtain back the deposit	

PROFESSORS & VISITING, PHD STUDENTS USER JOURNEY

MONTHS	June - July	August	September	October	May	June	July	August
PHASES	Accommodation's booking	Accept the accommodation	Check-in	Stay	Booking renewal	Renewal results	Holiday	
EXPERIENCE	Luigi requests an accommodation on the online area of the Housing Service after having seen the presentation videos	The request of the accommodation is confirmed, Luigi accepts it and pays the deposit	One week before the check-in Luigi informs the Dormitory of his arrival through online form and, on the given day, goes to the dormitory	Luigi begins his life in the dormitory. Thanks to the explanatory videos on the rules of conduct he knows how to deal with dangerous or difficult situations. Moreover he takes part in the creation of videos during the neighborhood events.	It is time for Luigi to go back to his University and he ends his stay in the dormitory			
TOUCHPOINTS	 Online Area of the Housing Service	 Online Area of the Housing Service I.S.U. Politecnico di Milano	 Online Area of the Housing Service		 Online Area of the Housing Service			
VIDEO TYPOLOGY	Institutional & procedures	Institutional & procedures	Institutional & procedures	Tips and Engagement	Feedback	Feedback		
INFO IN THE VIDEO	- presentation of the dormitory - dormitory environments - how to book without scholarship assigned - future steps after the acceptance of the accommodation - methods of the payment of the amount	- how to accept the accommodation - how, where, and when to pay the deposit (400 €) - how to cancel the reservation - refunds for the booking cancellation	- check-in timings - how to advise of the own arrival - needed documents - how to communicate the change of the date of the check-in - General Regulation for University Dorms - verbal on the conditions of the room	- video tips with rules of conduct - video tips dealing with security issues - videos able to picture the neighborhood's and the dormitory's life	- how to do the check-out - what is the verbal of check out - of to obtain back the deposit - feedback videos			

MONTHS	June - July	August	September	October
PHASES	Accomodation's booking	Accept the accomodation	Check-in	
VIDEO TYPOLOGY	Institutional and procedures	Institutional and procedures	Institutional and procedures	
INFO IN THE VIDEO	<ul style="list-style-type: none"> - presentation of the dormitory - dormitory environments - how to book without scholarship - how rooms are assigned - future steps after the acceptance of the accomodation - methods of payment of the amount 	<ul style="list-style-type: none"> - how to accept the accomodation - how, where, and when to pay the deposit (400 €) - how to cancel the reservation - refunds for the booking cancellation 	<ul style="list-style-type: none"> - check-in timings - how to advise of the own arrival - needed documents - how to communicate the change of the date of the check-in - General Regulation for University Dorms - verbal on the conditions of the room 	

VIDEO A

- distance from the university campus
- pay attention to decisional factors (room typology,..)
- video that resumes all the residences

VIDEO B

- pay attention on the day when they should pay
- insist on checking the accuracy of the personal data

VIDEO C

- check-in procedures

Thanks to the use of the unconventional user journey it has been possible to frame the brief for the first three videos dedicated to DSU students with the Housing Service of PoliMi.

List of videos with priorities

- Framing the brief
- Planning a timeline
- Establishing a dialogue with the other actors

The third tool was a consequence of the second one. Looking at the user journeys, it is possible to develop a list of videos providing also their priority, the possible typology (shot or animated), the duration (between 30 and 60 seconds or more than 60 seconds), and the possible presence of graphic elements such as writings.

INSTITUTIONAL AND PROCEDURES VIDEOS

Priority ■■■■■■

1. Video of all the spaces and environments of all the dormitories
2. Video of the spaces and environments of the Residence Gauss
3. Video of the spaces and environments of the Residence CDS
4. Video of the spaces and environments of the Residence Datas
5. Video of the spaces and environments of the Residence Galilei
6. Video of the spaces and environments of the Residence Newton
7. Video of the spaces and environments of the Residence Villard
8. Video of the spaces and environments of the Residence Pareto
9. Video of the spaces and environments of the Residence La presentazione in Como
10. Video of the spaces and environments of the Residence Loos in Lecco
11. How to accept the accomodation for students with a DSU scholarship
12. Check-in procedures

VIDEO A
VIDEO B
VIDEO C

Priority ■■■■■■

1. How to book an accomodation for students without a scholarship and visiting
2. How to accept the accomodation for students without a scholarship and visiting
3. Possibility to register the check-in day
4. Video that explains the *Carta dei servizi*
5. How to renovate the accomodation
6. Check-out procedures
7. Explanatory video of the *General Regulation for University Dorms* and the verbal on the conditions of the room

TIPS VIDEOS

Priority ■■■■■■

1. Security regulations
2. Garbage management (where and what to throw away)
3. Terrace management (don't smoke,..)
4. Use and management of the equipment

ENGAGEMENT VIDEOS

Priority ■■■■■■

1. Possibility to register events of the dormitory and of the neighborhood

FEEDBACK VIDEOS

Priority ■■■■■■

1. Possibility to select contents created by the students or register some interviews at the end of the stay

TIPOLOGIA
animated video

DURATION
between 30 and 60 seconds more than 60 seconds

GRAPHIC ELEMENTS
yes no

Video typology

List of videos

each video typology has its own list of videos. They can all have the same appearance (shot, animated,..) and duration or be different. Moreover, if the client has already defined some sub-typologies is possible to highlight them in the list.

Priority

according to the client's brief is possible to set the priorities of the videos and plan a timeline

Appearance

videos can be animated or shotted, brief or long and contain or not graphic elements.

Legenda

legenda of the icons

Affinity diagram

- Framing the brief
- Planning a timeline
- Establishing a dialogue with the other actors

The last tool used in the brief definition phase is a particular affinity diagram which helped to define the contents of the future videos for the Conservation and Building Services. The typology of videos that concerned more this client was the tips one, composed of two macro themes: the contents of the Carta dei Servizi and the Regulation for University Dorms. These last two documents contained lots of different information. To understand the priorities of the client the data were clustered into more significant macro categories: regulations/tips, guaranteed services and paid services, maintenance and damages, services and tasks of the direction and the reception, transfer, and waiver, additional information.



● Carta dei servizi ● General Regulation for University Dorms

Contents packages

- Framing the brief
- Planning a timeline
- Establishing a dialogue with the other actors

Each video is explained using packages containing information about spaces, services, and DSU students. This tool allows to visualise the information of the videos and also to quickly check the accuracy of it.

SPACES PACKAGE

LOCATION

graphic animation

RESIDENCES' ENVIRONMENTS

video

SERVICES PACKAGE

SERVICES

graphic animation

CHECK-IN PROCEDURES

graphic animation

CARTA DEI SERVIZI

graphic animation

GENERAL REGULATION/TIPS

graphic animation

PROCEDURES FOR STUDENTS WITHOUT DSU

graphic animation

DSU PACKAGE

ROOMS FOR DSU & PREFERENCES

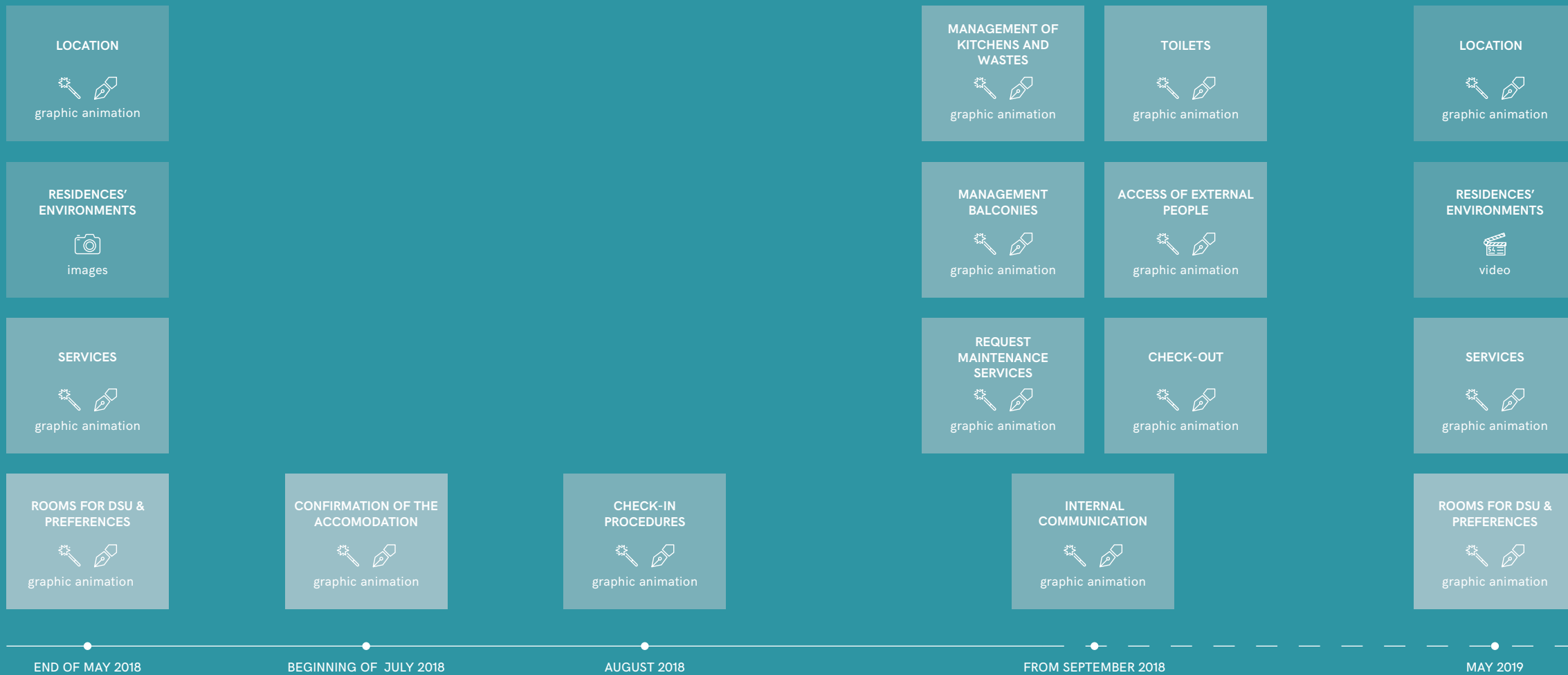
graphic animation

CONFIRMATION OF THE ACCOMODATION

graphic animation

ENGAGEMENT & FEEDBACK VIDEOS

ENGAGEMENT & FEEDBACK



Voiceover documents

- Framing the brief
- Planning a timeline
- Establishing a dialogue with the other actors

During the design phase, Word files or pdf are used to exchange information on the layout, on the contents, and on the voiceover.

On May 31st 2018, the call for applications for Diritto allo Studio opens to students who are looking for assistance with funding.

You can request to stay in one of the residences of Politecnico di Milano if you are a student living away from home and you will be placed on the accommodation ranking list. This video is a presentation of all the available residences, to help you make an informed choice.

If you want to live in one of the residences, click on the "Accommodation" button within the "Submission of Application for Diritto allo Studio benefits" application form, and state one or more preferences from the list of residences (You must express at least one preference to be able to complete the request).

If you choose to live in one of the Politecnico di Milano residences, your scholarship will be subject to a deduction of an amount defined by the "Regione Lombardia" every year. In recent years this has been € 2,341.00.

Please pay particular attention to the deadline dates of the call because they are different if you enrol in the first year of study or in other years of study.

There are 1045 places available to DSU students, and they are divided into the following 10 residences:

Casa dello Studente Leonardo da Vinci offers 66 places in double rooms.

Viale Romagna, 62, 20133 Milan MI

Leonardo Campus Distance: 3 min walk

Bovisa La Masa Campus Distance: 40/50 min. transports+link or 92

Bovisa Durando Distance: 40/50 min. transports+link or 92

Galileo Galilei Residence offers to DSU students 284 places in single rooms with shared bathroom.

Via Filippo Corridoni, 22, 20122 Milan MI

Leonardo Campus Distance: 20 min transports 19 or 61

Bovisa La Masa Campus Distance: 50 min transports+link or only transports

Bovisa Durando Distance: 50 min transports+link or only transports

Dateo Residence offers to DSU students 50 places in double rooms in apartments.

Piazzale Dateo 5, 20129 Milan MI

Leonardo Campus Distance: 15/20 min transports 19/33/61

Bovisa La Masa Campus Distance: 20/30 min link

Bovisa Durando Distance: 20/30 min link

*info in graphics

It is better to provide to who is taking care of the videos the text of the voiceover already divided according to the scenes that we have in mind. In this way, it will be easier to establish a dialogue and imagine together the different scenes.

If there are graphic elements it is useful to write them down in the voiceover, using other colors. The more information are provided (e.g. distances, timing, transportations like in video A of PoliMi) the more it will be easier and quicker to provide a first video proposal.

Focus: project evolution

Designing a coherent narrative means paying attention to the tone of voice but also to the graphics style and so to colours, fonts, images and their post-production, and animations (Sametz & Maydoney, 2003).

Typography

The font used for the videos is the Brandon Grotesque, which is already in use for the brand identity of Politecnico and for its wayfinding. It is always used in bold weight.

Brandon Grotesque / Bold

Aa Bb Cc Dd Ee Ff
Gg Hh Ii Jj Kk Ll
Mm Nn Oo Pp Qq
Rr Ss Tt Uu Vv Ww
Yy Zz
0 1 2 3 4 5 6 7 8 9

Aa

	A	A	A	A
⌈T	60 pt	85 pt	100 pt	155 pt
⌋A	93 pt	85/93/100 pt	100	93 pt
■	25	25	0	25
■		R=142 G=38 B=255 #8e26ff		R=255 G=255 B=255 #ffffff

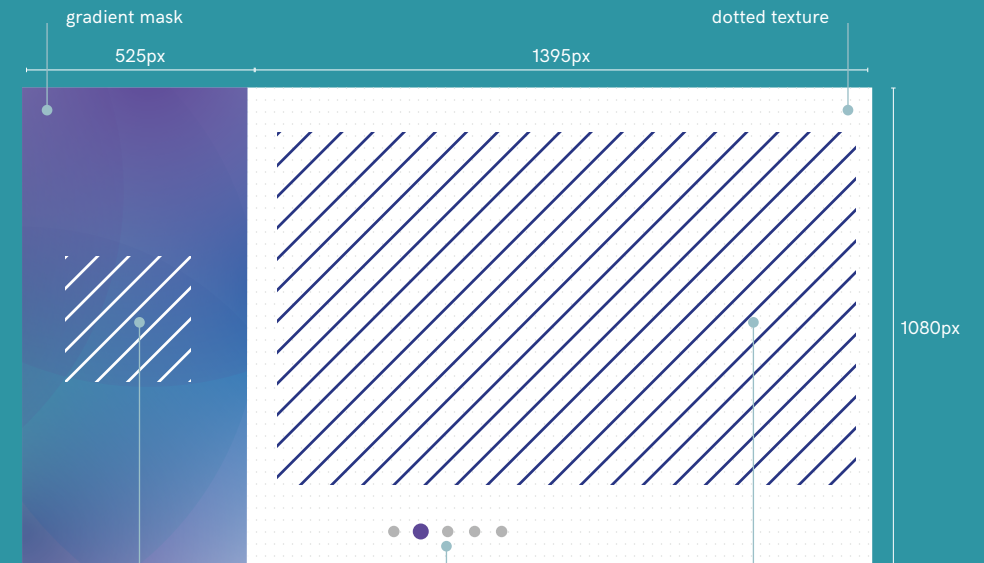
Pictograms

Lab|Imagine has realised the pictograms; like the ones of the wayfinding system they are stroke icons. Depending on the part of the screen they can have both a white fill or a gradient one. This last contains four colours: the same violet of the website and three shades of blue.



Layout

The layout is straightforward. The screen is always divided into two parts, the first, which occupies three-tenths with the gradient layout and a white icon, and the second with a white dotted background, that looks like a notebook, with written information and icons. The animations throughout the video are smooth and remind a website slider as if the listener is flipping through pages.



Icon

This space is occupied with an icon that recalls the subject of the conversation.

Slider

each screen contains a slider. Combined with the dotted background, it reminds the flipping of a notebook.

Information

This space is usually occupied with information. It must contain no more than 2-3 lines of text and, if needed, it is possible to place some icons.

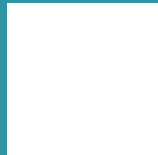
Colours

The graphic of the videos utilises few colours. The primary is the same violet used for the website of the residences, usually mixed with three shades of blue to form a gradient. This operation helps to connect the videos and the website visually.

Finally, white is used when icons or writing are juxtaposed with the violet or gradient background.

White

R=0 G=0 B=0
ffffff



Violet

R=142 G=38 B=255
#8e26ff



Gradient



R=142 G=38 B=255
#8e26ff



R=35 G=153 B=171
#2399ab



R=57 G=117 B=183
#3975b7



R=0 G=104 B=179
#1969b0

Credits

At the end of the video is possible to find the credits, to thanks the people that have collaborated in the design phase but even the ones that have provided the contents.

Scientific Supervisor - Luisa Collina, Design Department

Scientific Coordinator - Laura Galluzzo, Design Department

Concept and communication and editing coordination - Laura Galluzzo and Maddalena Mazzocchi, Design Department

Animation and editing - Lab Immagine - Design Department, Politecnico di Milano

Photography - Lab Immagine - Design Department, Politecnico di Milano, Maddalena Mazzocchi

Render - Area Tecnico Edilizia del Politecnico di Milano

Voice-over - Lorenzo Vivaldi

Music - Blue Skies by Silent Partner from YouTube audio library

Contents supervisor - Pinuccia Pintus, Ufficio Residenze Polimi

In collaboration with: Ufficio Residenze Polimi

Thanks to: Area Tecnico Edilizia of Politecnico di Milano

Video A

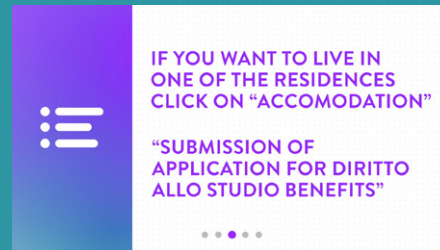
03:35 min ENG
03:23 min ITA

Video A contains a photographic slideshow of the residences' environments and the procedures that DSU students need to follow for the application.

Video structure

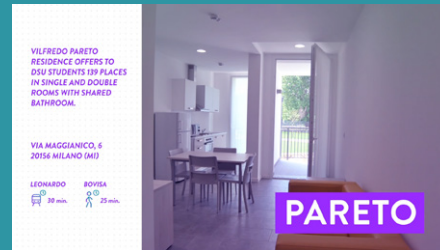
Part one
00:00 - 01:24

The first part of the video explains when the DSU call comes out and the procedures to apply for accommodation. It ends describing where are all the residences on the territory.



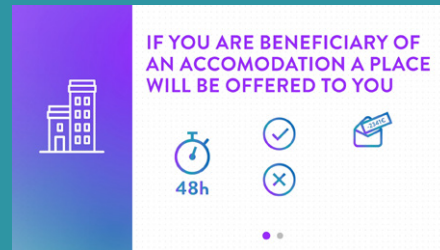
Part two
01:25 - 02:57

The second part of the video is a photographic slideshow that shows meaningful environments for each structure: exterior, rooms, and two common spaces. Moreover, the distances from the main campuses and the available places are provided.



Part three
02:58 - 03:35

The third part explains what will happen if the student results beneficiary and invites to consult the call on the website.



Resources

- DSU Call a.y. 2017/1018
- Regulation for University Dorms
- Admission's conditions and requirements
- Carta dei Servizi of each Residence
- Google maps
- City mapper App

Video B

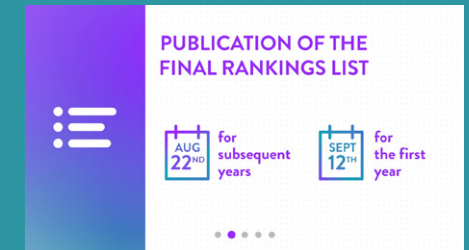
02:07 min ENG
01:55 min ITA

Video B explains the procedures to accept the accommodation for beneficiary students.

Video structure

Part one
00:00 - 01:22

The first part of the video explains how to accept the accommodation once the student results beneficiary.



Part two
01:23 - 01:55

The second part of the video reassures students that haven't received the confirmation mail yet explaining how the ranking lists works. Finally, the video invites to consult the DSU call on the website.



Resources

- DSU Call a.y. 2017/1018

Video C

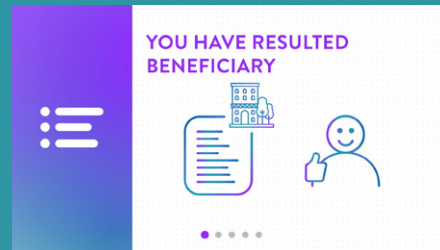
01:48 min ENG
01:46 min ITA

Video C illustrates the check-in phase describing the documents that are needed and the days when it is possible to enter in the residences.

Video structure

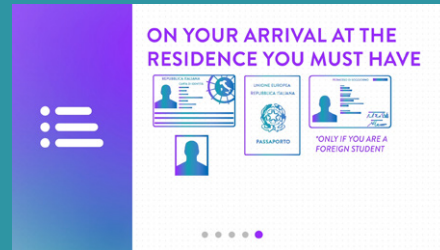
Part one
00:00 - 00:36

The first part of the video is a recap of the previous one. It reminds the student to accept or decline the accommodation.



Part two
00:37 - 01:48

The second part of the video explains when and how it is possible to carry out the check-in and which documents are needed.



Resources

— DSU Call a.y. 2017/1018



4.4.6 Final thoughts and future developments

The upcoming deadline often did not leave room for many trials or any time to plan new strategies. Among these, there is the strategic study of the possible media and channels where the video should be spread with their communications and advertising. For instance, video A was meant to be published on the DSU call, on the its own official website page, and on the residences' official website too. Nevertheless, the Web Area allowed to publish it on the YouTube channel of Politecnico, on the web page of the DSU call, and on the part of the Residences' website that is not easily accessible.

The positive aspect is that we succeeded in meeting the deadlines and that the use of a milder and tone, compared with the other institutional communication about dormitories, allow PoliMi to appear closer to the DSU students.

The analytics show the impact of the videos and the problems that still need to be fixed. The webpage containing the three videos on the website of Diritto allo Studio, from July 1, 2018, to September 9, 2018, has been visited 6.913 times: for a 62% by Italian students and for a remaining 38% by students from abroad. Going into the details of the single videos is possible to notice some differentiation. The first video, concerning the presentation of all the residences and of the procedures to request an accommodation for DSU students is the one that has collected more visits, followed by the second and the third. Even in this case, the Italian version has succeeded in reaching more people compared to the English one. In both cases, the average duration of a visit shows that many people have stopped the view before the end of the video. This is a clear sign that the information should be resumed even more to be enjoyed by all the students.

Nonetheless, a comment made by a PoliMi student under the English version of video A in the Youtube

channel shows the usefulness and benefit that these videos have

“Great video. Will be helpful to many! Please make one on complete DSU scholarship details and how to apply to DSU, if possible, asap!”

Prudhvi Mulagacherla, PoliMi student

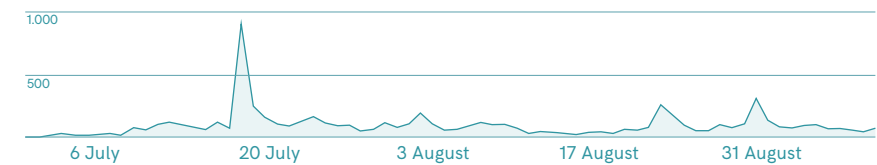
The analytics allow to measure the success and understand where to make some adjustments.

With all the insights in mind, the next steps of the project consider the planning for the video shooting inside the residences and the development of a first prototype of the video tips.

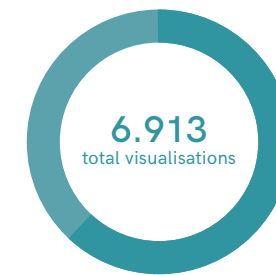
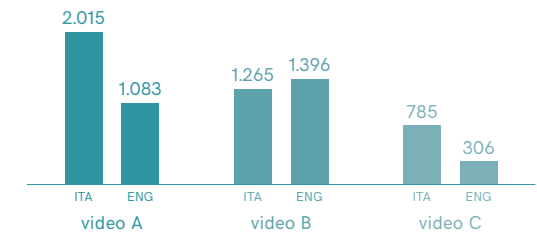
34
YouTube analytics of videos A, B, C

DSU page visualisations

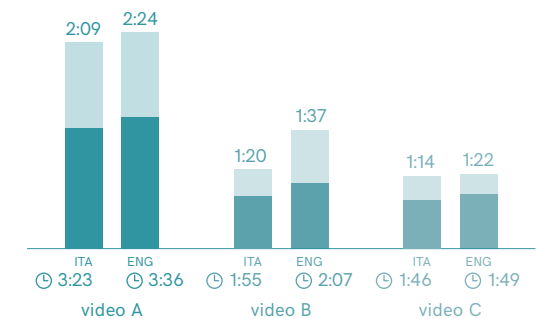
July 1, 2018 - September 9, 2018



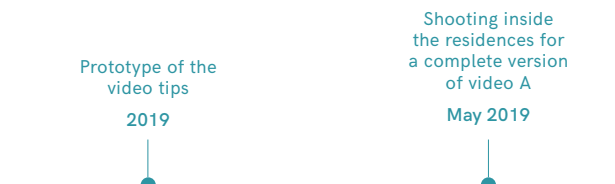
Videos visualisation



Average visualisation time



33
Future development of
GuardaMI videos



A manual to shape experiences, build identity and coherence

After a first introduction on the importance of a metadesign approach when designing for systems, and the power of visualisation to support these last, the chapter focuses on the design process of the manual developed for the design of the communication system of a student housing.

5.1 Metadesign framework

The discipline of metadesign has grassroots in the history of design, and it has been the subject of extensive studies and reflections of diverse scholars and researchers. The concept dates back to the modern age when the first attempts to provide a scientific model of the design process were attempted (Collina, 2003). It is in these years were the technical and machine world and the artistic one were considered as separated, and the scientific and artistic approach judged incompatible.

Starting from the '60 is possible to witness, both in Italy and in the rest of the world, to numerous attempts of giving to the design process a rational and scientific character with the contributes of diverse subjects such as information science, mathematics, and statistics. The tensions around the debate of the macro subjects of art and industry lasted for a long time involving important thinkers and scholars and representing the starting point of numerous manifestos of design and architecture schools, such as the Bauhaus one, that tried to formalise their disciplines into accepted theories. Among the exponents of the time Donald A. Schön, professor of Urban Studies and Education at the Massachusetts Institute of Technology (MIT), provided with his observation of teaching and learning in the design education, a diverse interpretation of the designing process that is useful to understand the Italian design culture. For Schön design cannot be seen as a science, on the contrary with the approach *learning by doing*, and a critical and strategic approach, students can learn through the practice and knowledge of professionals and coaches. With a reflection on the practice, before having applied the theory and the previous knowledge, it is possible to learn from the practice itself. It is precisely this reflective character that is at the base of Italian design which often produced a contribution to the research or reflections on several topics more than projects aimed at action (Bertola, 2018). Metadesign is thus a set of methodologies and approaches able to support the designer and enrich his observation and thinking capacities more than a set of rules that, once applied, can generate positive outcomes (Collina, 2003).

After this brief historical digression, useful to frame the context, it is possible to explore the origins of the term and see some useful examples.

The prefix Μετά in Greek means through, after, behind, between but it has also acquired other meanings such besides

or beyond or, more in general, all the meanings that reflect an abstract level on applications. For instance, a metalanguage is the language that we use to talk about the language; in this sense, metadesign is the conversation around the project (Colombi, 2013) the instrument that we use to talk about the design process, the project of the project.

The abstract and reflective nature of the prefix meta is visible in different projects. In 1978 William Kaufmann published *One Book five ways* a *metabook*, as it will be described by Hofstadter, that describes the result of an educational experiment. The author sent a manuscript on indoor gardening to five different universities presses that published it and reunited all the versions side by side in its book. One year before, in 1977, Donald Knuth introduced the *meta-font* which is an abstract font based on parametric rules to which variation transform the characters realising different fonts belonging to the same family. The exploration of the theme has not stopped to the past but it is still present nowadays; in 2006 the famous Dutch architectural studio MVRDV published *Metacity* where they represented future extreme scenarios based on statistical data related to different cities and the planet in general. From these examples is possible to observe the earlier and generative nature of metadesign that, in most cases, puts boundaries or define guidelines for future projects. More than being a new model, this discipline represents a *mode of design* (Giaccardi, 2005).

The different nature and the remarkable number of definitions of metadesign reveal that there is not a clear idea of it. Nonetheless, it is possible to identify some characteristics that help to identify its field of action. According to Van Onck metadesign is the discipline that studies the movement of the elements of a system, trying to understand and establish the rules under which they can move (Van Onck, 1965). This definition carries with it two main implication; the first

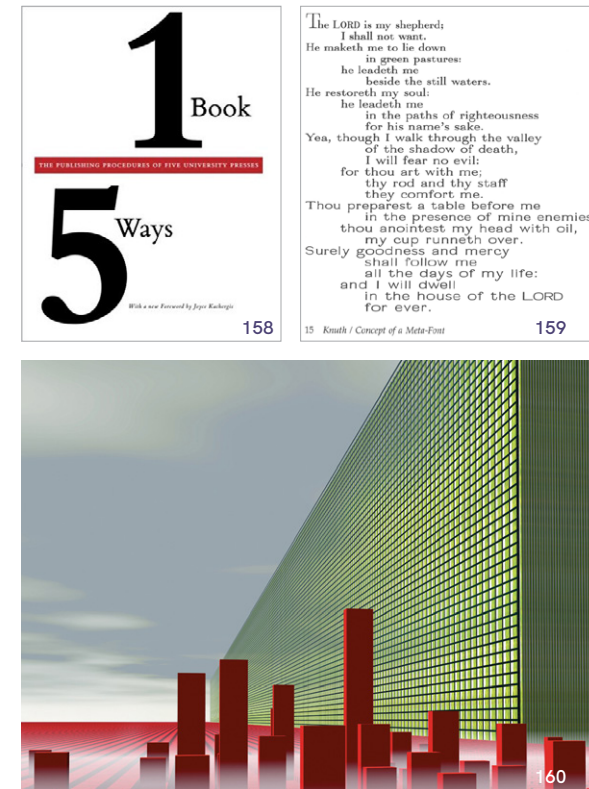


fig.158 One Book five ways by William Kaufmann
fig.159 Meta-font by Donald Knuth
fig.160 Metacity by MRDV

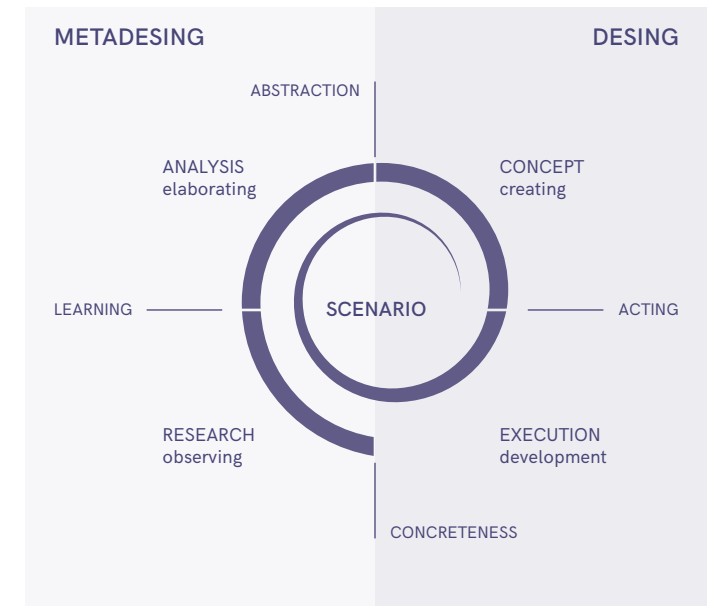
one is the abstract nature of the discipline that is based on schemes and structures which originate multiple projects; the second one is the implication of a systemic nature that deals with the relations among the single element of the system. These two characteristics imply the methodological nature of metadesign, that is the instrumental role of the discipline which, during the design practice, outlines the progression of the actions, their contents, and their execution. In this regard, some independent instruments emerged such as the activities of concept design, brand manuals, and the creation of scenarios. These distinguishing features entail the necessity of establishing a systematic dialogue with different pieces of knowledge. Metadesign is interdisciplinary since it acts as a sharing platform among the actors involved in the process, and since it implies the adoption of instruments, even not proper of the discipline of design, that act as innovative and systemic catalysts that can expand spatially and temporally the subject of study.

5.2 Strategic metadesign approach in the design of systems

The previous paragraph concluded with the concept of metadesign as a sharing platform, actually it offers decision-making models and makes them common among the actors with the employment of communicative machines. These visualisation instruments allow translating into understandable artefacts the research process and the definition of the concept of the design creating a common ground and shared objectives among the actors. The practice of metadesign can be synthesised into five main design actions:

1. Metadesign as a set of techniques and methodologies that can lead the process and provide a collective identity to different projects.
2. Metadesign as a research tool that originates outcomes as trend books, technological trends, knowledge maps, business map, etcetera.
3. Metadesign as a leading principle for multiple projects involving the creation of briefs, best-practices, guidelines, calls, trends, etcetera.
4. Metadesign as a verification tool that helps to check if the project is following its objectives.
5. Metadesign as a set of elements or relations shared by more solutions.

To better understand where the discipline applies it is interesting to analyse a model of the design process presented by Francesco Zurlo (Zurlo, 2018). The matrix is divided into four quadrants with two couple of polarities: learning and acting on the horizontal axis, and concreteness and abstraction on the vertical one. The bottom left quadrant represents the starting point of the research, while the upper left quadrant refers to the analysis and the other two are related to the creation of the concept and its prototyping. Zurlo defines the process as a spiral that can start again, with the re-iteration phase, after the prototype. What is interesting to observe in this model is noting how the left part, that is the domain of metadesign, and the right part, that is the domain of design, are strictly connected and interdependent. Thus, the phases of research and analysis, and so the metadesign area, empower "the strategic contribution of design within companies and organisations" (Zurlo, 2018).



35
Matrix of the design process presented by Francesco Zurlo

The innovative and strategic aspects of the discipline are significant when talking about product or product service systems. These last are the materialisation of the strategy of the brand or the company and are represented by products, communication, and services. Systems are set of families (Collina, 2003) which include diverse elements, the discipline of metadesign allow to understand and to study how these

components interact with each other. By focusing on the macro level and not on the single element, the design keeps a high level of abstraction and defines the rules and principles that are the basis of the system. Indeed, each element affects the others changing the planning trajectory, having a clear understanding of the relationships allows to control the process and its innovation (Penati, 2001).

In this regard, metadesign allows controlling complex systems with a set of methodologies and rules that, even with a high degree of abstraction, continuously help to follow the correct approach by having a complete understanding of the context.

5.3 Two design tools: the manual and the toolkit

As it has been possible to understand from the previous paragraphs, all the products that can guide throughout the design process are considered part of the metadesign field. This is the case of both the manual and the toolkit, which deal with the design of the system more than with the specificity of its elements. Since one of the most critical aspects is the scalability of the project, in order to function and perform over time a system needs to be communicated in the right way to the new people that will be involved in the design of it. In this paragraph, we will try to understand better these two tools and their applications.

Before doing that, we need to focus on the concept of value and experience that are the prerequisites for the creation of both manuals and toolkits. These two concepts are meaningful to companies and brands that, if able to create valuable service experiences can raise positive emotions and generate loyalty in their customer differentiating from the competitors.

Designers and more in general design can add value to systems, products, environments, and interfaces with a consequent positive effect on the customers, whose valuable experiences, reflect in a stronger emotional relationship with the brand (Lockwood, 2007).

It is possible to say that value is the resulting evaluation of the experience. However, different users can have a different experience of the same service with a resulting diverse perceived value. However, what is an experience? Many academics have tried to provide a definition, one of the best one affirms that it is the total sum of the interactions that a customer has with a service (Polaine et al., 2013). The

problem is that designing an experience is almost impossible since it is personal and affected by the different emotions (Pullman & Gross, 2004); thus it would be more appropriate to speak about designing for experiences. This is something that companies can and must do in order to manage the total customer experience. During the last years, academics have defined all the perceptions and feelings that a customer has as service clues (Berry et al., 2002), in other words, they are all the sensations that a touchpoint can trigger inside a customer. Therefore, clues are not only connected to inanimate objects but also to the human contact with the people that are working within the service. When approaching a new service or a new brand, customers have several expectations. This may be due to value promises of the brand, a good aesthetic of the product or the website, smart use of social media, or simply a good recommendation by someone. Rockwell has tried to explain, using some mathematics, how brand satisfaction is strictly connected to the brand experiences and expectations

36
The formula of brand satisfaction by Rockwell

$$\text{BRAND SATISFACTION} = \sum_{\text{Brand touchpoints over time}} (\text{Brand experiences} - \text{Brand Expectations})$$

“Cumulative brand satisfaction, then, can be expressed in an equation as the sum of interaction experiences across all brand touch-points”

(Rockwell, 2008, p. 76)

Indeed, if a brand can provide a great experience to a customer that has low expectations, it will probably earn a new user. At the same time, the brand experience is strictly related to the brand meaning that changes over time and can influence expectations for future experiences. These observations



37
The change of the brand meaning over time by Rockwell

reveal the importance of accurately designing not only each touchpoint but also its influence and interactions with the

others since customers remember the overall impression of the service and so of the system (Zomerdijk & Voss, 2010).

Both manuals and toolkits are metadesign tools exploited by companies to provide a common ground in order to ensure the best valuable experience to clients.

5.3.1 A design tool: the manual

The Cambridge English Dictionary²⁸ defines a manual as follows "a book that gives you practical instructions on how to do something or how to use something". This is actually what a brand manual does; it provides instructions about the style of a company. It is usually divided into many chapters that list: the logo and its declinations, the typefaces, the colours, the system of grids, the web style, the corporate stationery, the tone of voice, and all the other possible information that are considered useful to keep a brand identity recognisable. The brand manual ensures that, when different groups are designing for the same company, can use the same graphical guidelines. The problem with this kind of tool is that it is often too focused on the graphical aspects, resulting unable to communicate the brand strategy to the new designers (Filho, 2012).

There are not only brand manuals but also manuals that treat specific topics and are not designed by companies. As an example, in Italy, one of the holy books for an architect is the Architect's manual, where it is possible to find all the standards and regulations to design following the law. To explain better what a manual is three case studies will be provided.



fig.161 Camper store

The work developed by Guixé for Camper commercial spaces consists of a series of cards containing the guidelines to design the shops. The system is based on earlier stores but is open and proposes different solutions according to a variety of factors (Guixé, 2003). It is possible to define the work of the designer as a metadesign project; indeed, the cards compose a manual that, thanks to abstraction processes, set rules and methodologies that create different solutions for the same brand. Guixé's work is quite unusual; manuals are usually shaped as books rather than collections of cards. Nonetheless, the system that he has created allows a higher degree of liberty compared to the usual one providing a broader set of solutions.

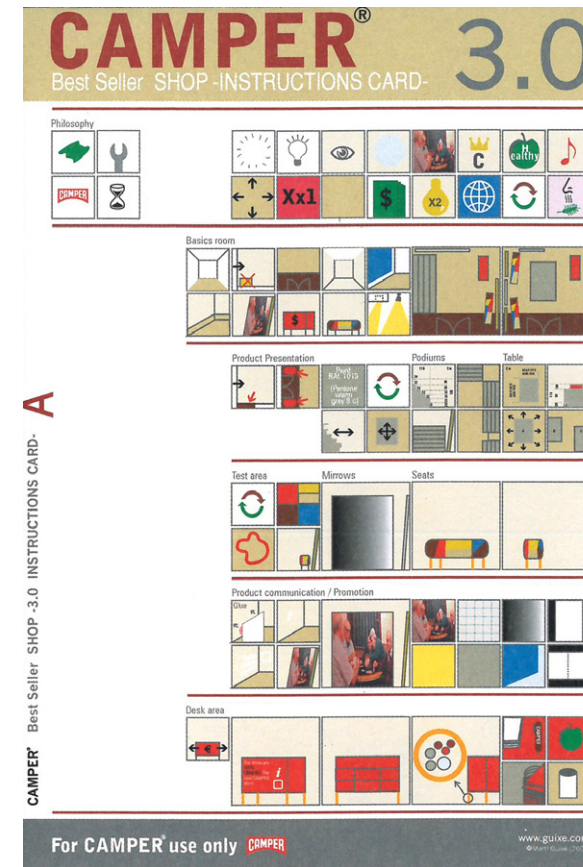


fig.162 Best seller shop instructions card for Camper

Instructions card for Camper commercial spaces

Marti Guixé
2003

28. Manual Meaning in the Cambridge English Dictionary. Retrieved from dictionary.cambridge.org/dictionary/english/manual

In 2014 Airbnb decided to redesign their brand identity and assign the task to DesignStudio²⁹. Before coming up with the idea of the new logo and identity the design team did much research with both employees and customers to learn more about the company. The resulting brand manual, besides being physical, has got its digital equivalent. Andrea McCulloch, a member of DesignStudio, was in charge of translating the .pdf guidelines into a website that could be shared internally and externally. The website is divided into four main sections: overview, guidelines, archive, and resources. The guidelines section is divided into eight parts which, in turn, are divided into other sub-parts. It is a vast and remarkable work that allows easy access to the guidelines for employees and partners. Still, it is focused on the graphic style of the brand with only one small part talking about the voice and the tone.

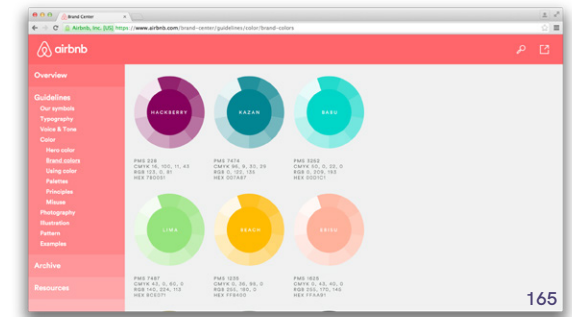
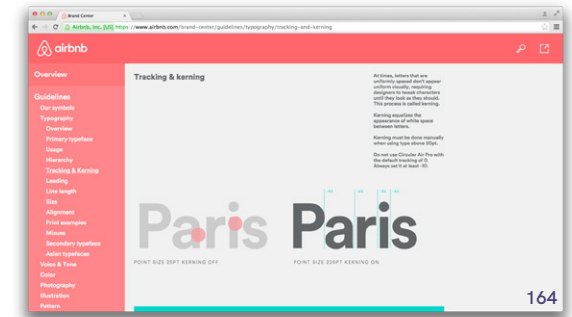
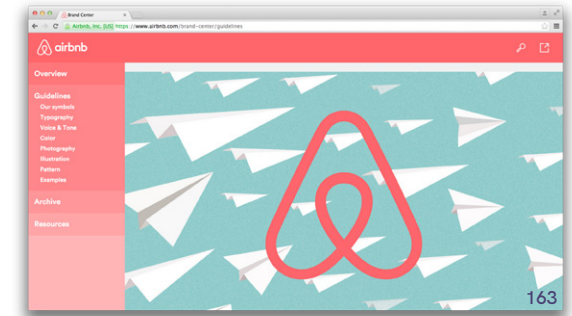


fig.163 Digital platform for the new Airbnb brand guidelines
fig.164 Typography section of the digital platform for the new Airbnb brand guidelines
fig.165 Colour section of the digital platform for the new Airbnb brand guidelines

29. DesignStudio creates new logo for Airbnb. (2014). Retrieved from www.dezeen.com/2014/07/16/airbnb-rebrand-designstudio-logo-belo/

During the years DOM Publishers has created a series of 41 books³⁰ aimed at reaching the specialised audience of architects. The volumes are manuals that gather interesting and famous case studies. Their purpose is not providing architectural rules; instead, they want to spread some good practices and be inspirational to the architects. Usually each manual contains an introduction and explanation of the subject that is enriched with case studies and drawings to explain the projects better.

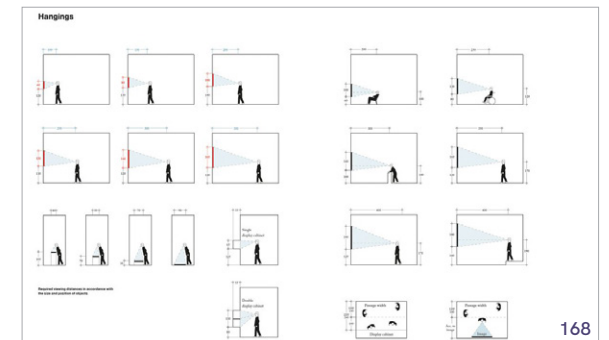
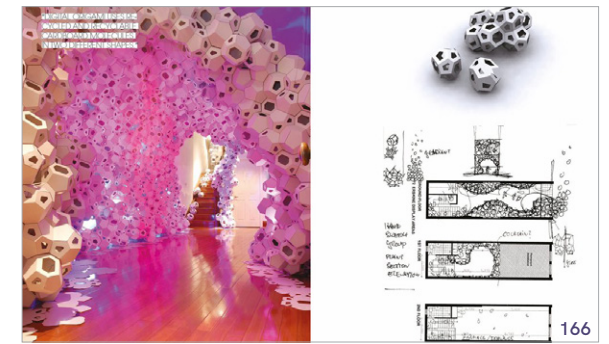


fig.166 One page from the manual on
Architectural diagrams

fig.167 One page from the manual on
Competition panels and diagrams

fig.168 One page from the manual on
Museum Buildings

30. *Manuals*. Retrieved from dom-publishers.com/collections/handbuch-und-planungshilfe

These three case studies show two different usages of a manual. They all provide instructions on how to create certain types of design, whether they consist of graphic elements or in spatial one, but they offer different degrees of liberty. Indeed, Guixé work leaves the way open to a set of solutions guiding the project only with some principles; on the other hand, the Airbnb identity, even though is placed inside an open system, provides more limitations. Finally, the Design manual series collect a series of case studies, giving suggestions more than rules.

5.3.2 A design tool: the toolkit

If it is true that companies are using brand manuals to have an internal communication, it is also true that some of them, in particular, service design agencies, are trying to communicate with the external world by making their knowledge and methods opensource trough the creation of toolkits. The Cambridge English dictionary³¹ defines a toolkit as "skills and knowledge that are useful for a particular purpose or activity, considered together", design agencies, indeed, don't provide solutions but a set of techniques, methods, and practical tools that can guide people through a process. Going through some case studies, the possible structure of a toolkit and its use will be analysed.



fig. 169 On-field application of the HCD Toolkit designed in 2009 by IDEO

31. *Tool kit Meaning* in the Cambridge English Dictionary. Retrieved from dictionary.cambridge.org/dictionary/english/tool-kit

This is Service Design
Thinking: basic, tools, cases
Stickdorn et al.
2011

This book represents the perfect hybrid between a manual, in the real sense of the word, and a toolkit. It is structured in three parts: basic, tools, and cases. The first one provides an overview on the theme of service design, the second part the explanations and worksheets of the most common tools used in service design, and finally, the third part provides some real case studies. Besides, the book layout and style are using a series of pictograms and texts that help the reader to stay focus and understand the different concepts while reading. With the book also comes a web platform, called *Smapply*, which aim is to provide tools templates and allow to share them with the design team.

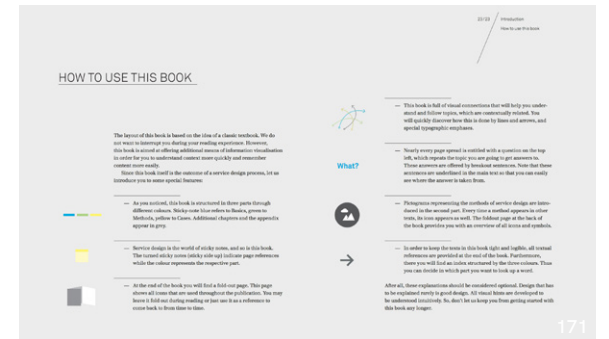


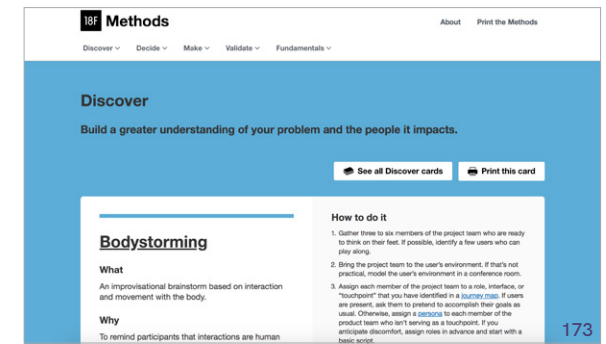
fig.170 This is Service Design Thinking:
basic, tools, cases
fig.171 How to use the book, a page
from *This is Service Design Thinking*
fig.172 One page from *This is Service
Design Thinking*

18F Method cards

18F

2015

18F is a digital service delivery agency³² that in 2015 has launched a collection of research and design practices in the form of a deck of cards. It is possible to consult the cards online and print them; they are divided into five groups, according to the design phases defined by the agency, which are: discover, decide, make, validate, and fundamentals. Each card has a simple design. On the front, there is the name of the activity, what it is and why, the phase to which it refers, and the time required. On the back of the card, there are usually three information: how to do it, additional resources, and examples from 18F. With the cards 18F aims at creating a tool that can facilitate the process rather than suggesting a set one.



Visual preference testing

What

A method that allows potential users to review and provide feedback on a solution's visual direction.

Why

To align the established branding guidelines and attributes of a solution with the way end users view the overall brand and emotional feel.

How to do it

1. Create iterations of a style tile that represent directions a final visual design may follow. If branding guidelines or attributes don't exist, establish them with stakeholders beforehand.
2. Interview participants about their reaction to the style tiles.
 - Ask questions as objectively as possible.
 - Align questions with the branding guidelines and attributes your project must incorporate.
 - As far as possible, allow participants to provide their feedback unmoderated or at the end of your research.
3. Compare the results of your research with the agency's published branding guidelines and attributes.
4. Publish the results to the complete product team and decide which direction will guide future design efforts.

Additional resources

- [Rapid Desirability Testing: A Case Study](#), Michael Hawley.
- [Preference and Desirability Testing: Measuring Emotional Response to Guide Design](#), Michael Hawley and Paul Doncaster.

Applied in government research

No PRA implications. The PRA explicitly exempts direct observation and non-standardized conversation, 5 CFR 1320.3(h)3. See the methods for [Recruiting](#) and [Privacy](#) for more tips on taking input from the public.

PHASE	TIME REQUIRED
Validate	4-12 hours for style tiles . 30 minutes per participant to get feedback.

174

fig.173 18F Method cards platform
fig.174 Visual preference testing card,
from 18F Method cards

The field guide to human-centred design

IDEO
2015

IDEO is one of the first global design company focused on human-centred design. In 2015 they launched their field guide to human-centred design in the form of a book³³. The structure is elementary, at first, there is an introduction to the mindset and a brief explanation of their division of the design process into three parts: inspiration, ideation, and implementation. The book is then divided into methods based on this last three phases. Each chapter contains a different number of tools and techniques divided into separate sheets, within those last they put several information. The first page always includes a title, a brief explanation, the description of the steps, and all the other additional information such as time, difficulty, what is needed, and participants. The second page describes the methods in action, and so a real situation experienced by the IDEO team, and it is connected to a third page containing a possible layout of the tool.

With its guide, IDEO is not suggesting to designers to use all the methodology during a project, but a set of useful tools and proper attitudes to face design challenges with a human-centred mindset.



175



176



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fig.175 The field guide to human-centred design
fig.176 Tool explanation on *The field guide to human-centred design*
fig.177 Method in action in *The field guide to human-centred design*

33. *Design Kit*. Retrieved from www.designkit.org/

Also known as CAT, the Collective Action Toolkit of Frog was launched in 2012³⁴ to help local change agents in setting up activities that can enable changes to happen inside a local community. The toolkit is divided into six activity areas containing the equivalent activities.


Each activity has got its sheet which comprehends: the name of the activity, a brief description, the needed time, roles, and materials, the steps, and a suggested next step.



CLARIFY YOUR GOAL


RIPPLE EFFECT

Decide what kind of impact you want your group to have — from improving people's lives in your community to changing your country or the world.



TIME 30 min. for a team of 3 people; add 5 mins. for each additional person	ROLES Participants 1 recorder 1 facilitator	MATERIALS Printer paper and pens Optional: camera, markers
---------------------------------------------------------------------------------------	-------------------------------------------------------------	-------------------------------------------------------------------------


▶ WHERE TO NEXT?
Try another Clarify Your Goal activity like 'Define Your Problem' to better understand the problem you want to solve.





frogdesign.com/CAT


CLARIFY YOUR GOAL / RIPPLE EFFECT

- 1. Divide into teams**
Form teams of three. Hand each team a piece of paper and ask them to write the problem they're trying to solve at the top. Then draw a circle in the center of the page that contains the names of the group members.


- 2. Write the effects on individuals**
Have each team imagine what would happen if their problem were solved. Then write around the first circle the effect that would have on those closest to them (family, coworkers, or friends). Draw a larger circle around these names and label it 'individuals'.


- 3. Write the effects on community**
Add another circle and label it 'community'. Again, imagine if your problem were solved, and write down the effects that would have on the community. Draw as many circles as you need for effects on your city, nation, or the world.


- 4. Share the Ripple Effects over time**
Have the teams post their papers and discuss the similarities and differences. Choose a circle to focus on and the effects you'd like to see. Write these on a clean sheet of paper along with a timeline of when you'd like to see this happen. Put this sheet on the wall so the team can use it later.



The Collective Action Toolkit

fig.178 Collective Action Toolkit
fig.179 Activity description in the Collective Action Toolkit

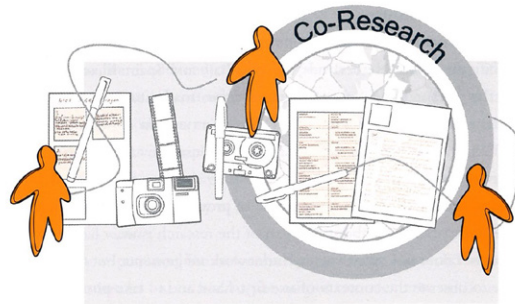
34. Collective Action Toolkit - Transforming Communities | frog case study. Retrieved from www.frogdesign.com/work/frog-collective-action-toolkit

The user toolbox for The Context of Use Co-research methodology

Philips design
2004

The Context of Use Co-research methodology is a method developed by Philips design that is broadly used in the design research. It is based on nine steps that involve a multidisciplinary team and allow to do in-depth ethnographic research. The in-depth path involves a phase of co-research, here it is possible to find a special tool called the user toolbox "The user toolbox provides a variety of creative tools and includes; blank coloured cards; post-its; crayons; a bag to put objects into; a disposable camera; and a help phone number on a card." (Lindsay & Rocchi, 2004, p. 103). Although this solution is different from the others, it provides a different use of the toolkit that, rather than being used by external people are exploited by the service agency itself to find out interesting insights during the research phase.

fig.180 The user toolbox designed by Philips Design



The five case studies show the diverse use of the toolkit. Thanks to their particular nature they assume different shapes, and according to the different cases, they can be cards, books or even boxes full of different objects. Still, they are all aimed at suggesting some methodologies and rules.

Having examined both some examples of manuals and some cases of toolkit it is possible to make a distinction between them. Manuals are used to communicate guidelines, and they are typically shared with a practice-related public, they can contain suggestions, but their primary role is to communicate rules. On the other hand, toolkits are based on different design methods, but their central purpose is suggesting methodologies without forcing to follow a predetermined path. They provide inspirational and virtuous cases, and they are addressed not only to experts in the field but also to ordinary people. Despite their differences, they are both two internal and external communication tools that help to shape and design experiences.

5.4 Where do branding manuals go wrong?

Organisations and companies are complex systems that need the use of strategic communication. In this sense is possible to say that the concept of the system - that is an organised set - is intrinsically connected to the concept of communication. Organisations are particular social systems that need to interact with the surrounding environment exchanging intra and intersystemic information and create relations (Muneratto, 2007). In order to perform these series of actions companies, over the time, have changed and improved their way of communicating giving to the concept of brand high importance and characterise both their actions and their way of being. Wheeler has identified three primary functions for brands: navigation meaning the capacity to choose; reassurance that is the capability of reassuring a customer of his choice; engagement that is the imagery that denotes the brand (Wheeler, 2017). As it is possible to understand the identity is not a simple element but is composed by the culture, the behaviour, the market conditions, the strategy, the product/ services and the design (Melewar et al., 2005).

The corporate visual identity represents an emerging theme, usually shorten with the acronym CVI, that represents the set

of logotypes, typography styles, names and architecture that an organisation uses to communicate its style and personality. The research domain of corporate visual identity can be separated into three levels: strategic, operational and design level. The first one is more related to the aims that a company has, the second to the development and management of the communicative system, and the third one to the actual design of the elements (Bosch et al., 2004). Corporate visual identity should be explained in the brand or corporate manuals; however, it is usually treated as a self-explanatory tool (Bosch et al., 2004) and the real message that lies beyond the brand identity is never explicitly treated (Kapferer, 2008). Even though it is not rare to find these *graphic identity bibles*, which can be simple or complex and strict or flexible (Jordá-Albiñana et al., 2009), they always fail to meet their real aim.

But then, where do branding manuals go wrong? In its interesting research Filho blame the old product-dominant mindset for the inappropriateness of brand manuals. Products used to be the main touchpoint of a company; therefore, communication was considered secondary and frequently overlooked. At the same time, today's brand manuals have a contradictory nature; on the one hand, they are too narrow when it comes to controlling the brand expressions (and so the pure graphic elements) and too broad when describing the brand experience (Filho, 2012). This represents a significant obstacle mainly when designing for services, and so when the design team need to develop a new service following a brand-aligned experience, it is usually confused by the restrictions from one side and the lack of strategic thinking from the other. Filho concludes his paper proposing the development of a new tool: The Brand Experience Manual. The author describes it in this way

“It should communicate the brand proposition, taking the visual identity just as a manifestation of the brand's identity; deal with multiple-touch points; and tackle the evolving character of the brand, for, over time, brands are influenced by the changes in people and society, and also new touchpoints experiences that may change the brand's identity.”

(Filho, 2012, p. 676).

The interesting proposal opens up a new series of unexplored possibilities which can generate unique and innovative results and that, concurrently, need to deal with a new way of communicating.

5.5 The power of visualisation to support systems

The action of the project is often described as the design process. The term process underlines the fact that design can be seen as an open system that needs a narration. The plurality of codes used requires the presence of narrative expedients, the act of translating thoughts into images represent not only a narration but even the activation of the design thinking (Penati, 2013b). It is possible to sense the affinity between design and narration particularly in all the projects that involve an articulated system and in all the design phases that request new way of communicating such as the metadesign one (Penati, 2013a). The resorting to images is a logic defined rhizomatic since every single project creates a new possibility that does not have to follow hierarchical rules but rather it can create new ones (Ciuccarelli, 2007).

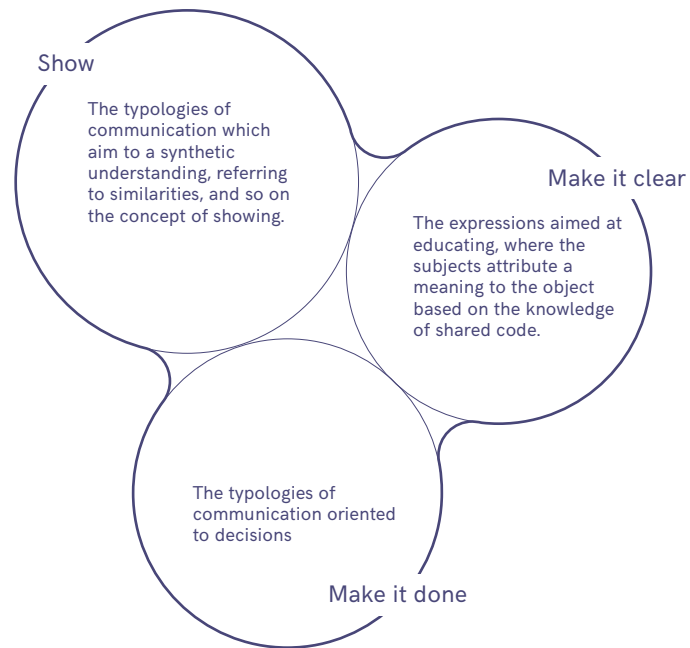
The aspect of narration has a primary role in the design of service systems, where the project is thought and discussed as a script (Acciarri, 2005). Systems involved a series of different actors, from the users, to the client, to all those different figures that are in-between them. It is clear that creating a dialogue among all of them is necessary since it represents the strategic communication that underlies the design of a service. It is possible to divide this conversation into two main sections: the communication *in* the service which involves co-production activities and the intervention *of* non-experts, and the communication of the service that corresponds to the moment when the project and its functioning need to be explained to all the actors.

In the previous paragraphs, it has been possible to understand the importance of the creation of an experience; services can be communicated as systems or as experiences interpreting it as the interaction with the user. Being able to translate these abstracted values into something real is very challenging until now only co-design strategies are elements that can resemble a transmission of values. The immateriality of services and system requires new tools and methods to communicate.

In her doctoral dissertation, Roberta Tassi analyses the communication in the design of services and operates an interesting distinction clustering the expression's manners in instruments *to make it clear*, instruments *to make it done*, and instruments *to show* (Tassi, 2008). The concept of making something clear is connected to all the expressions that want to educate and that the subject connects to a particular

object based on joint and shared knowledge. The idea of making it done can be attributed to indexicality, meaning all the communication forms aimed at decision making. Lastly, showing refers to the communication directed to the synthetic comprehension.

Communication and visualisation with it are powerful instruments that support the designer in explaining the complexity of the system. Its young history, concerning service design, makes it an area that still needs many contributions.



5.6 The communication system of PoliMi residences

The communication issue is an existing problem in the world of services. If, with the passing of time, it has been possible to assist in the creation of new tools and methodologies that allow agencies and designers to communicate the service, it is not possible to say the same thing about the communication in the service which aims to express the intangible aspects like the one of experience or performance. The metadesign approach could represent a valuable assistant in doing that, organising the elements with a logical order, it allows not only the designer to understand possible incoherencies, but also to create a

common ground with the other actors. Moreover, metadesign can help in defining a design strategy capable of guiding and shaping the single projects derived from it into objects able to preserve identity and coherence (Collina, 2003).

Before being able to create a strategy, it is mandatory to understand how the system works; in this paragraph, the communication system of PoliMi residences will be analysed.

To begin, we need to refer to the stakeholders' map of the second chapter, where is possible to observe the interaction between the four categories. As it has been already affirmed the communication within and between this sets are varied and require diverse instruments. However, which are the instruments that they use, and what kind of communication are they using? To answer these questions, we need to do some step forwards. First, it is essential to define the touchpoints of the system. Even in this case, it is possible to divide them into three categories: tangible, intangible and digital touchpoints.

Tangible touchpoints

- Wayfinding
- Furniture
- Written communication (bottom-up documents)
- Institutional documents (top-down documents)
- Welcome kit

Intangible touchpoints

- Environmental communication
- Human relation with the staff



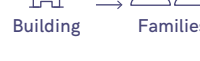

Digital touchpoints

- Videos
- Residences' website
- Social channels
- Institutional email
- Online services
- Platform or digital tool to share and organise events

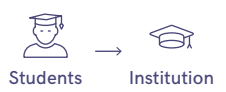




Tangible touchpoints refer to all the material and palpable elements, in this category we can find the wayfinding system as well as all the printed communication and documents. The other two categories seem to be the same thing; indeed,

a digital element is also intangible. However, in this case, intangible touchpoints refer to all the elements that are more connected to the emotional sphere, they are the service clues discussed in paragraph 5.3. Last but not least, digital touchpoints are all the channels or digital means that PoliMi uses to communicate. In the list there are also some elements which are not currently present in the system, like the welcome kit or the platform, indeed, the aim of this analysis is presenting not only state of the art, but even, thanks to the analysis conducted till now, how the PoliMi residences can be improved with the introduction of new touchpoints.

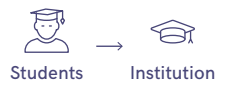
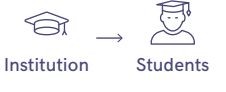
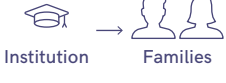
Now that we have clear which are the actors and the touchpoints it is possible to deepen the analysis understanding the typology of communication that occurs among the stakeholders. In chapter two the differences between *internal* and *external communication* have been described, in addition to these last, it is possible to identify another typology, the institutional one. It can be described as the communication which considers all the tangible, intangible, and digital elements that contribute to providing experiences and information which are directly attributable to the Institution. The three diagrams in these pages refer to each typology of communication. They explore the relationship between the users and the touchpoints that they are using to achieve that. For instance, looking at internal communication, the staff communicates with the students using human relation, written communication, digital communication and social media.

INTERNAL COMMUNICATION	
 Students → Students	Human relation Social channels Platform or digital tools
 Staff → Students	Human relation Written communication (bottom-up documents) Digital communication with a platform or digital tools Social channels
 Staff → Staff	Human relation
 Staff → Institution	Institutional email
 Institution → Staff	Institutional email
 Institution → Students	Videos
 Building → Students  Building → Staff  Building → Families	Environmental communication Wayfinding Furniture

39
Internal communication of a student housing

EXTERNAL COMMUNICATION	
 <p>Students → Institution</p>	<p>Institutional email Online services</p>
 <p>Institution → Students</p>	<p>Videos Institutional email Social channels Residences' Website Online services Welcome kit Institutional documents</p>
 <p>Institution → Neighbourhood</p>	<p>Videos Social channels</p>
 <p>Students → Neighbourhood</p>	<p>Platform</p>
 <p>Building → Neighbourhood</p>	<p>Environmental communication Wayfinding</p>

40
External communication of a student housing

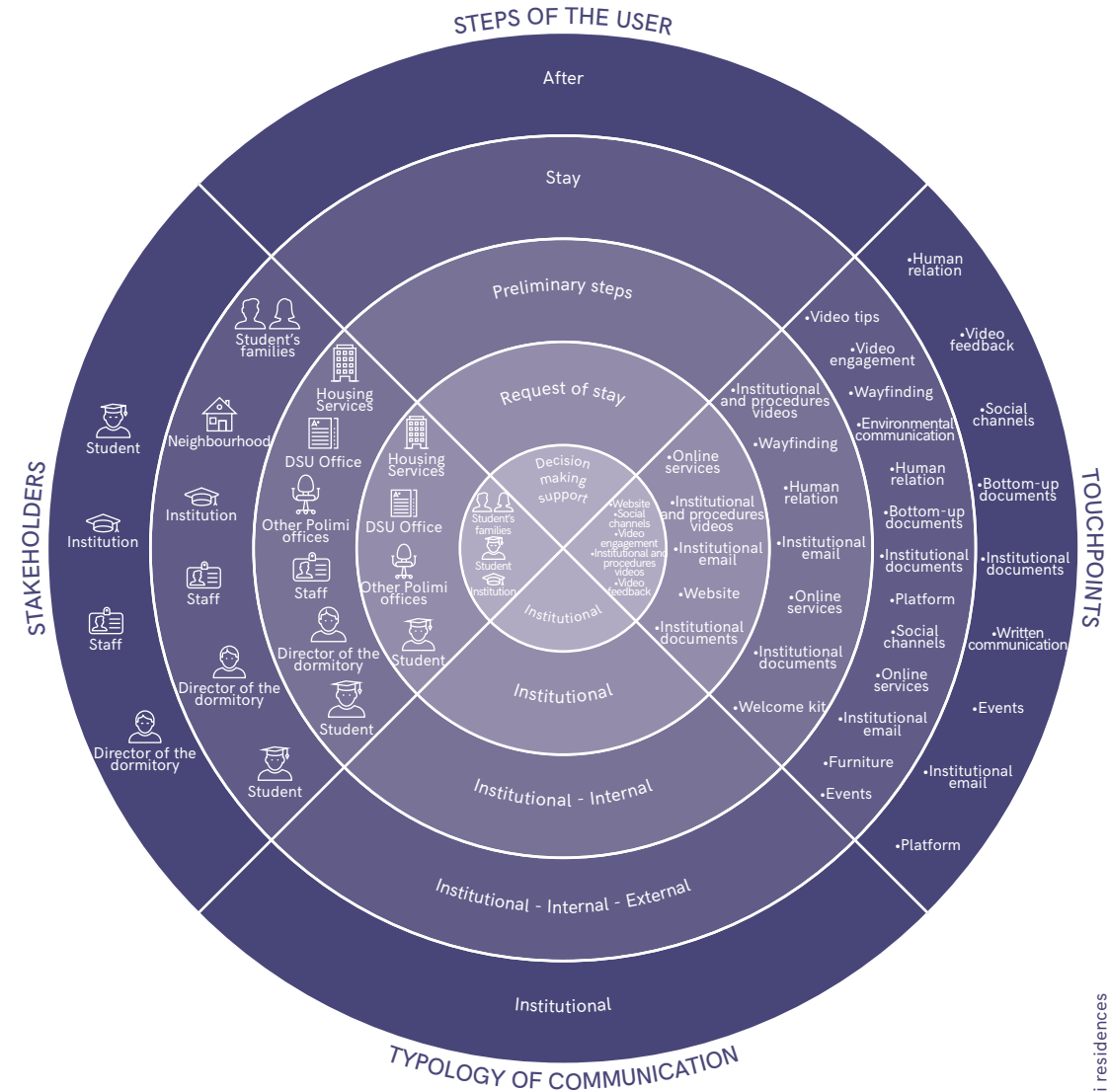
INSTITUTIONAL COMMUNICATION	
 <p>Students → Institution</p>	<p>Digital communication Online services</p>
 <p>Institution → Students</p>	<p>Videos Digital communication Social channels Website Online services Welcome kit Institutional documents</p>
 <p>Institution → Families</p>	<p>Videos Website</p>

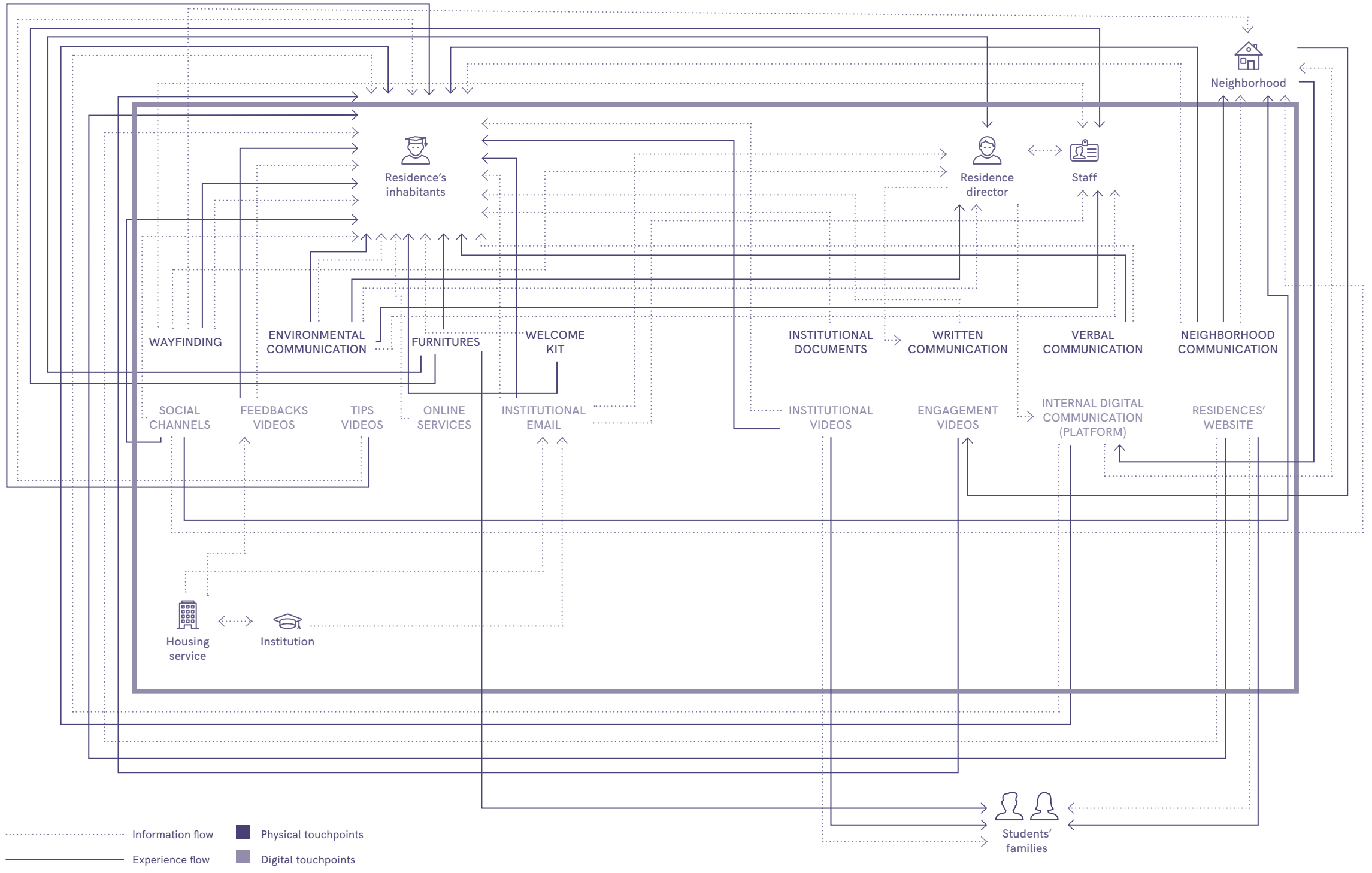
41
Institutional communication of a student housing

Until now it has been defined who acts (*stakeholders map*), what is used to execute it (touchpoints), and how this action is, or better which is its nature (*typology of communication*). One of the missing elements is the temporal dimension. In chapter four, in particular in the paragraphs dedicated to the videos of PoliMi, four main steps have been identified: decision-making phase, check-in, stay, and end of the stay. In this case, the temporal line is divided into five parts: decision making support, preliminary steps, stay, and after that refers to the moment when the student leaves the dormitory. Combining these steps of the journey, the touchpoints, the typology of communication, and the actors we obtain a *system ecology*. This instrument is useful to understand when the different communications take place, which actors are involved, and which support they require.

The last tool used to analyse the system of Polimi residences is a revisited system map, a map of the system communication. As a matter of fact, the information collected till now outline the system efficaciously. Nonetheless, this chapter has insisted on the importance of shaping the experience, for this reason, it is fundamental understanding if the touchpoints are experiential, or if they have an informative nature. This last consideration is crucial for the design of an effective system.

The conducted analysis has allowed to understand the system of PoliMi residences better as well as understanding how new touchpoints can interact with the others creating a complete and functional system.





43 Map of the system communication of a student housing

5.7 How to. From Student Housing to Connected Places

The complexity of the communication system of PoliMi residences, as well as, the necessity to communicate and leave the guidelines of *Comunicare Ospitando* project, has led to the development of a manual entitled *How to. From student housing to connected places*. The instrument can be defined as a hybrid between a manual and a toolkit since it does not only provide practical instructions on how the system of a student housing works but it also provide some design tools thanks to the practical case study of PoliMi.

The analysis of the communication system carried out in the paragraph above is easily applicable to others Milanese universities, even though PoliMi has an architecture and design school, together with specialised labs that are useful helpers in the design phase, it is also true that in other cases these stakeholders can be external. From this perspective, the analysis conducted has been translated using a metadesign approach which has led to the creation of families able to generate new products and activate processes of innovation that open up to universities different planning strategies as well as ensuring a good response of the system even if it is affected by changing over time. With the new tool, there is the will to communicate a design strategy capable of guiding and shaping the single projects into objects able to preserve identity and coherence.

5.7.1 Project inspirations

In his famous book, *I gradi di Libertà* Ugo La Pietra explains how the society of the time, using the instruments of information and the strict urban structure, was leaving no *degrees of liberty* for the participation and definition of the city by the citizens (La Pietra, 1975). Going on in the text, the author affirms that the communication between the single person and the external world takes place with means that are always up-to-date by technology and that communication takes place through communications developed by others. To better explain this concept La Pietra uses a series of photos taken to the rain's drainpipes of the Parisian's houses. These drainpipes, scattered all around the city, are supports for messages that can be read by everyone and are not part of the codified means of communication elaborated by the System (La Pietra, 1975). With this simple example, the author explains

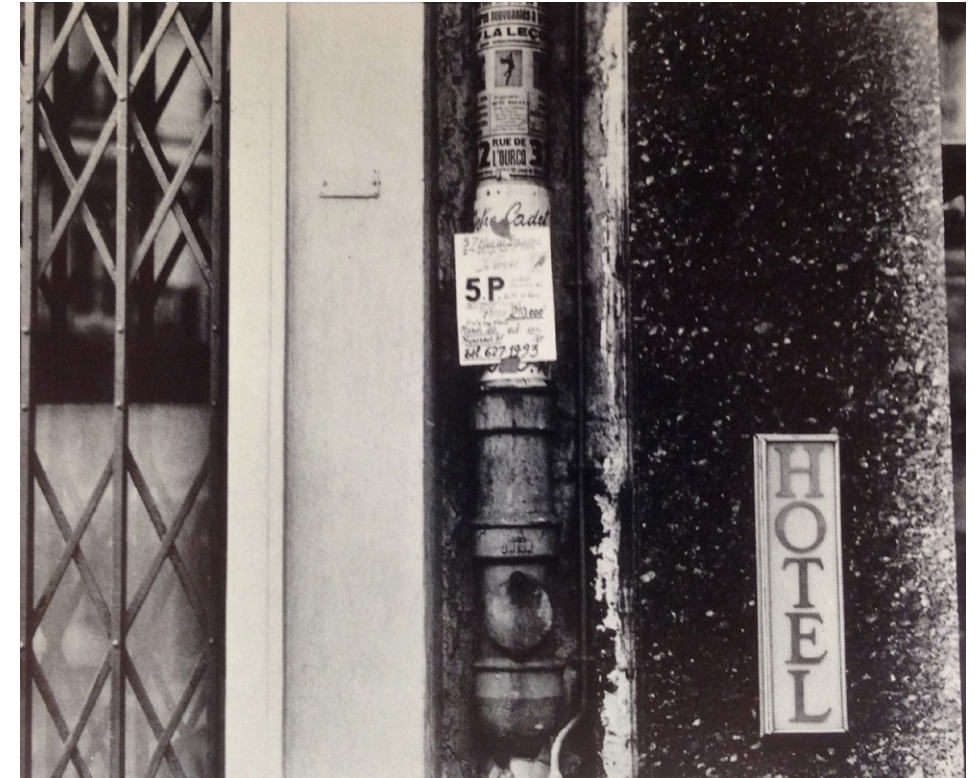


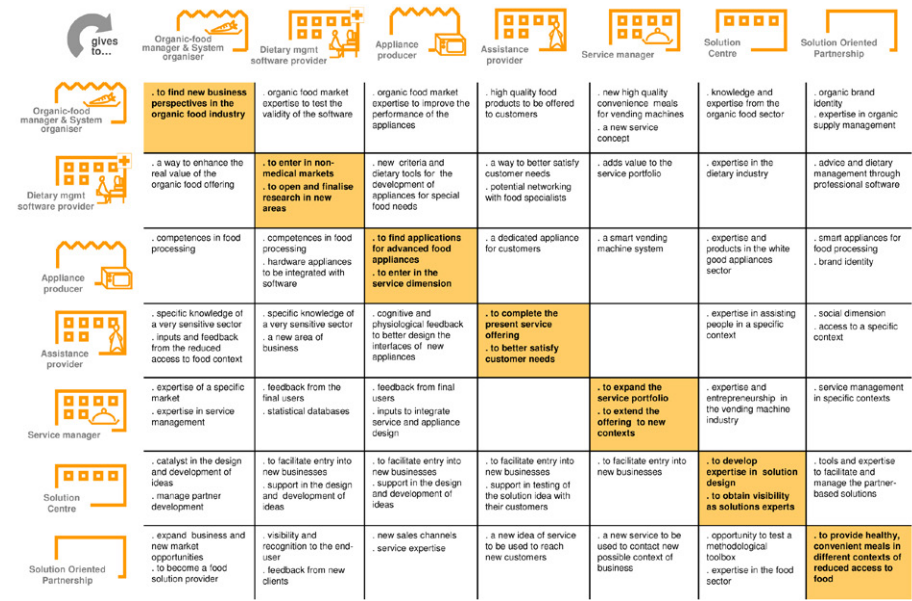
fig.181 One of the photos of the series by La Pietra to the rain's drainpipes of the Parisian's houses

how a simple action can interfere with the closed communication systems and allow active participation.

The initial part of this paragraph wants to be intentionally provocative. Already in 1975 La Pietra condemned the closed systems, not able to leave *degrees of liberty*. As it has been already at length discussed in this chapter the tools that are meant to suggest rules and methodologies to design systems may appear too broad or too strict. In the following part of this chapter, two approaches towards the design of a system will be analysed. In particular, the projects are focused on the power of visualisation and communication which can help to support dialogue in cases where lots of actors are involved. These are not usual examples; on the contrary, they show how to face the design phase with an inclusive and innovative approach, trying to leave as many *degrees of liberty* as possible.

The first case study is the *Design Plan (DP)*, a strategic design toolbox that, exploiting several tools and formats, helps to synthesize possible solutions in contexts that involve numerous actors and interactions (Manzini et al., 2004, 2009). The authors of the tool have defined it as a “shared and progressive system to represent and elaborate solutions” (Manzini et al., 2009, p. 16). The *Design Plan* is shared since it is based on a set of rules that allow building a common language, thanks to the use of *fixed formats of representation* and an open library of graphic elements. Moreover, the instrument is progressive since the five service tools used in it allow to advance in logic and temporal way supporting the strategic conversation among the actors.

The design phase is divided into two parts, the first one which involves the *Design Orienting Scenario (DOS)* process, where a shared vision is built, and the second one that is the actual *Design Plan(DP)* where the tools support the strategic conversation among the numerous actors (Manzini et al., 2009). This last exploit four main formats: the *system map* which shows the organisation of the system, the *interaction storyboard* which shows the performance of the solution in a timeline, the *solution element brief* which simultaneously visualise the connections among the elements and the partners, and the *stakeholders motivation matrix* which shows the interaction and partnerships among the actors.



The *Design plan* is a clear example of “the power of visualisation to support convergence” (Manzini et al., 2004, p. 117), visual schemes allow to understand the context quickly and share a common view among actors with different backgrounds; in addition, tools able to produce accesible and quick visualisations are helpful in designing new solutions in teams where some members are not trained in visualisation techniques.

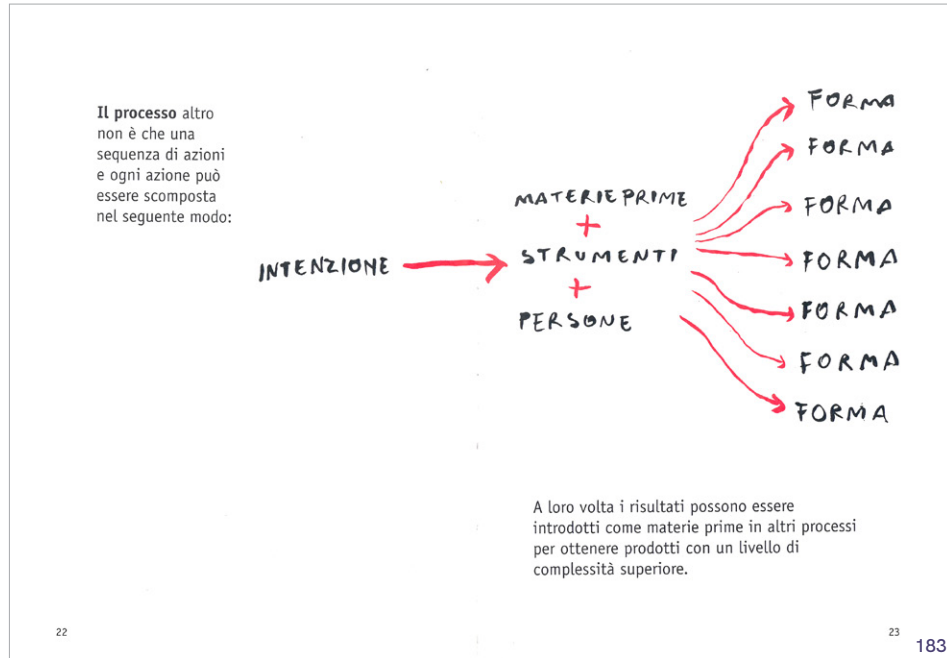
fig. 182 The Stakeholders motivation matrix of the Design Plan (DP)

The second case study is a handbook edited by Corraini entitled *Manuale di immagine non coordinata* (unprogrammed identity). In eighty-one pages the authors explain with three simple principles how it is possible to create a *natural* and *elastic* brand thinking to the nature of the object rather than to an abstract form. The work is very provocative and challenges the rigidity of the existing manuals by proposing to the reader a process to design the brand image for a lodges’ consortium and cheese producers. It is very interesting to notice how the *degrees of liberty* mentioned by La Pietra also appear in this publication

“The task of the designer of a non-coordinated image is to rigorously establish intentions, starting materials, instruments and people involved in the creative process, stating from time to time restrictions and degrees of freedom”

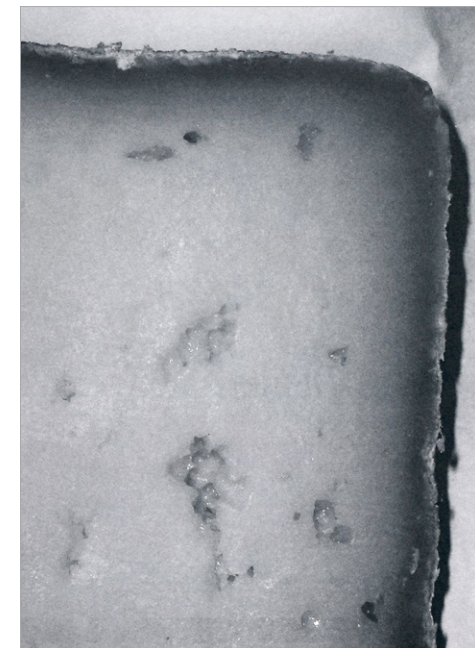
(Corraini & Caprioli, 2008)

The entire handbook is based on this concept of giving more liberty to design a brand that is friendlier and less rigid, and the only way to do that, as Finessi affirms in the introduction, is to "dare the forbidden" (Corraini & Caprioli, 2008, p. 8).



**L'IMMAGINE
COORDINATA
È OBSOLETA**

184



Lo stesso tipo di formaggio può assumere gusti e sfumature molteplici a seconda del luogo e del periodo in cui è prodotto e stagionato. Ma è sempre lo stesso tipo di formaggio.

Dove sta la riconoscibilità?

Nella forma di formaggio o nel processo di produzione?

19 185

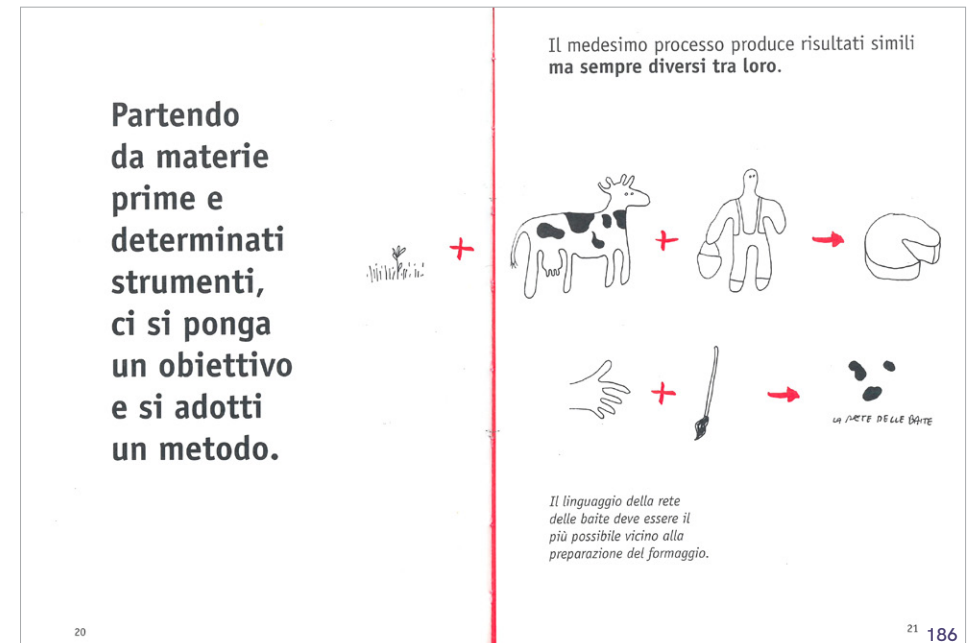
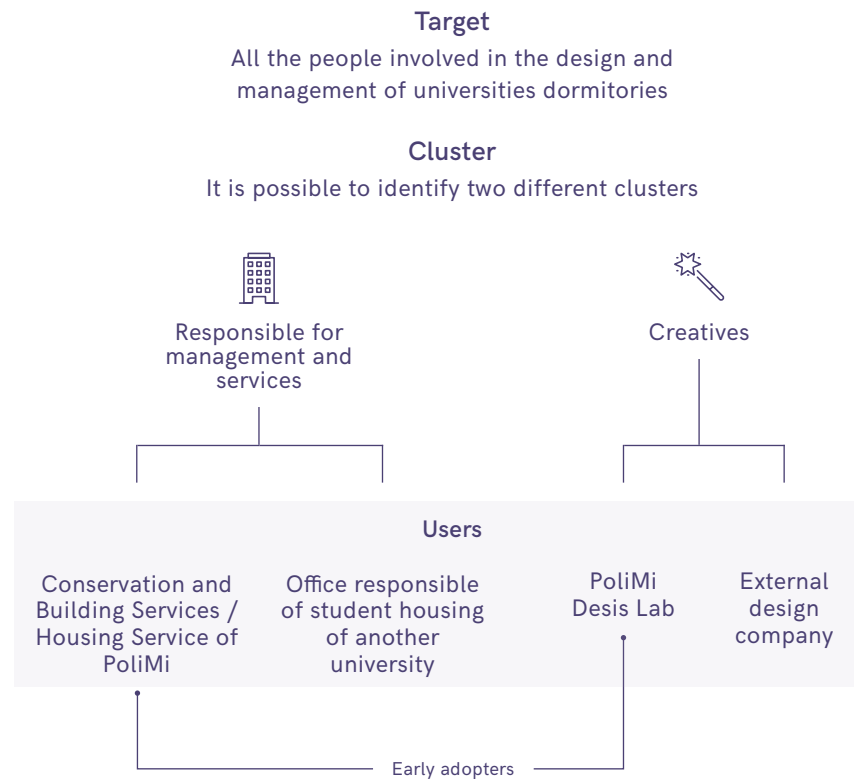


fig.183-186 Manuale di immagine non coordinata by Corraini

5.7.2 Early adopters and users

The particular structure and contents of the manual make it suitable for the needs of all the people that are involved in the management and design of student housing. It is possible to divide them into two different clusters, the first composed of the responsible for management and services and the second of all the creative people. Each cluster identifies, in turn, two typologies of users that are both internal and external to PoliMi. In the following part of the paragraph, we will analyse each user and understand the motivations that can lead him to use the manual.

44
Target, cluster and users



The first ideal users are the member of the design team that will be in charge of going on with the projects started with *Comunicare Ospitando*. In the manual they can find useful tools applied to the case of PoliMi, but,

above all, they can find the design guidelines both for the wayfinding and the videos.

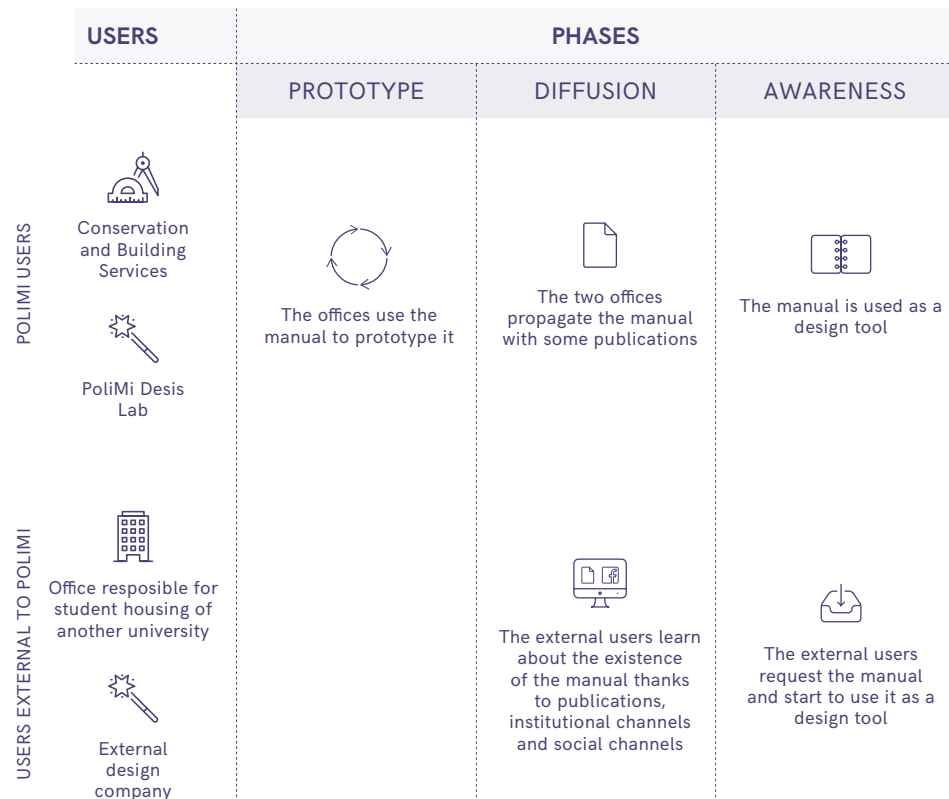
The second ideal users are the members of the different PoliMi offices and departments concerned with the design and management of the residences that can find a complete explanation of the system and its components. The systemic view allows a strategic approach, which favours the design of improvements and changes that are coherent with the other elements.

The third users are the members of offices and departments concerned with the design and management of the residences of other universities. On the one hand, they can understand how a student housing system works, while on the other, thanks to the PoliMi applicative case study, they are provided with existing examples and best practice.

The fourth and last users can be the design agency or companies involved by Institutions in the residences' design. The manual for them is a tool that allows understanding the system immediately and rapidly be on the same page with the client.

Even though they belong to different clusters, the early adopters are the internal actors of PoliMi.

At this point, a question may arise: how can the users external to PoliMi have access to the manual? The tool has been commissioned and designed for the Conservation and Building Services; therefore they, together with the Desis Lab, will keep the manual in their offices. Once that the manual successfully pass the prototype phase it will be probably announced and published on some articles and PoliMi channels. At that point, the other Institutions, together with the design agencies interested on the topic, can request the manual and will obtain a printable copy of it with the assembly instructions.



45 Manual diffusion strategy

5.7.3 The structure of the manual

The manual is structured into four parts: an introduction to the system and three chapters dedicated to digital, analogical, and environmental communication. Each chapter is in turn divided into other sections, that may be likewise divided into other subsections. Each chapter is more or less explored depending on the presence of PoliMi examples. Nonetheless, they are investigating different parts of a dormitory system trying to explain what composes each element, what is its relationship with the others, and which are the design aspects that require more attention.

Chapters, sections, and subsections are recognisable thanks to the different formats and colours of the pages. The vertical inserts indicate the chapters, the bigger pages indicate the sections, and the horizontal inserts indicate the subsections.

The manual lacks intentionally of numbers. As a result, when one of the touchpoints is further developed, is possible to add new guidelines and tools, making the manual increasingly complete.

After the introductory part dedicated to the explanation of the communication system of a student housing, the manual divides into the three chapters.

The digital communication chapter is divided into the two sections of Videos and Additional digital touchpoint. The *Videos* section is, in turn, divided into three subsections: *introduction*, *tools*, and *PoliMi application*.

The analogical communication chapter presents only the section of *Analogical communication* where each touchpoint has its focus sheet.

Finally, the environmental communication chapter is divided into the two sections of *Wayfinding* and *Atmosphere*. The *Wayfinding* section is, in turn, divided into three subsections: *introduction*, *tools*, and *PoliMi application*. As it is possible to understand this last part is further developed compared to the atmosphere one.

As it is possible to understand the first and last chapters, since they contain the touchpoints developed during *Comunicare Ospitando* project, are further developed compared to the last one. They share both the same triple structure for the two extended sections:

1. An introduction to the topic
2. The Tools subsection which explores useful tools, derived from Comunicare Ospitando project, which help in developing similar projects
3. The Polimi application subsection which contains the graphic guidelines of the existing PoliMi projects and explains them

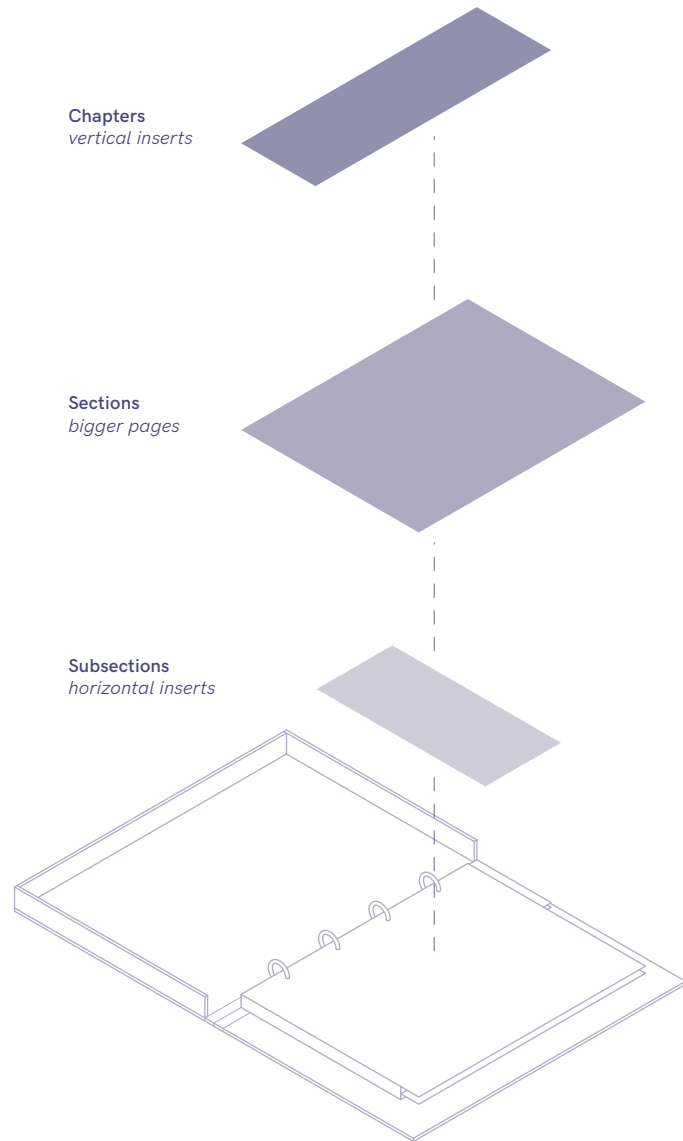
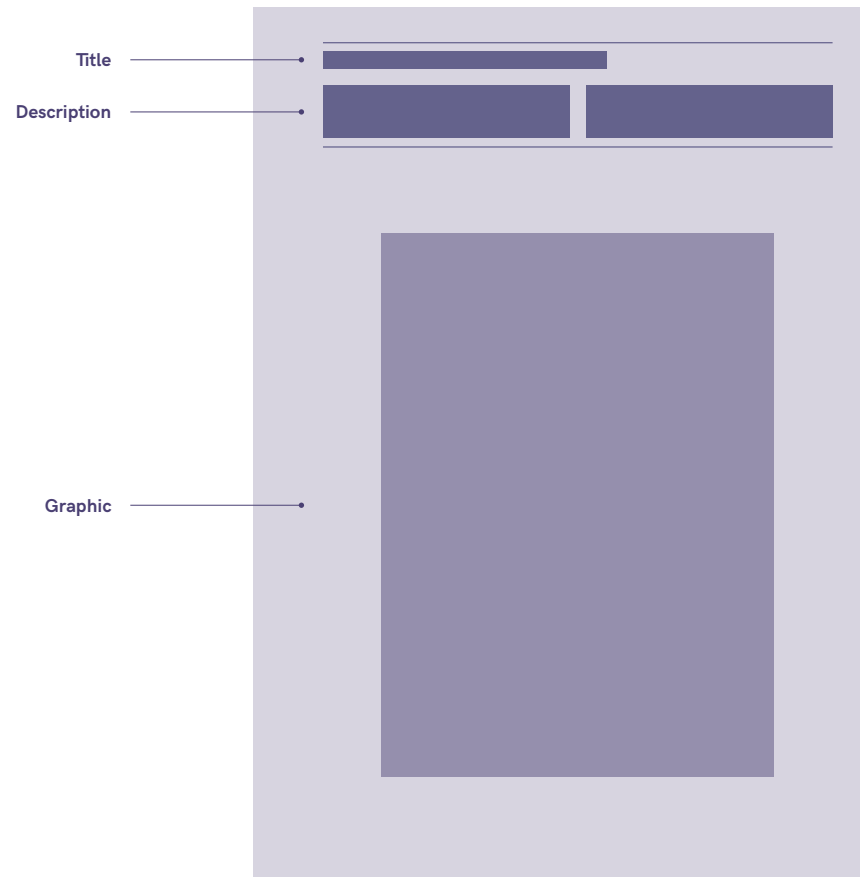


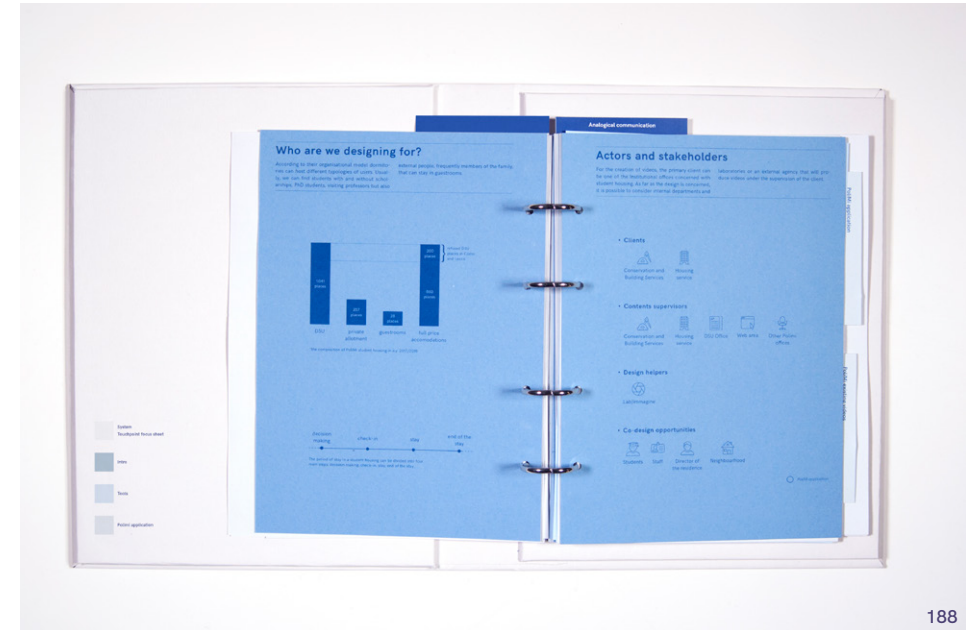
fig.187 The first page of the manual

5.7.4 Layout



47
Layout of the manual
introduction

The manual layout is intentionally straightforward. The introduction of each section, as well as the general introduction of the manual, present the title on the top of the page, followed by a brief description and, underneath, a graphic or an image that clarifies the content. In this case the pages have two different colours a cool grey for the general introduction and a deep azure for the section's introduction.

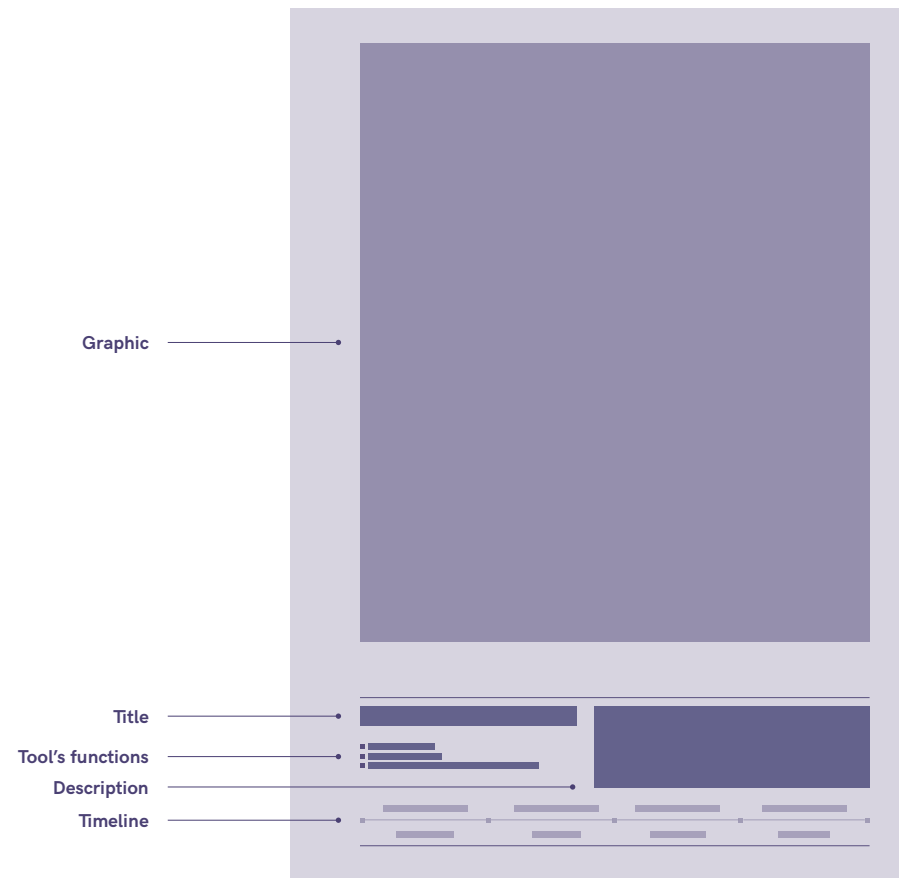


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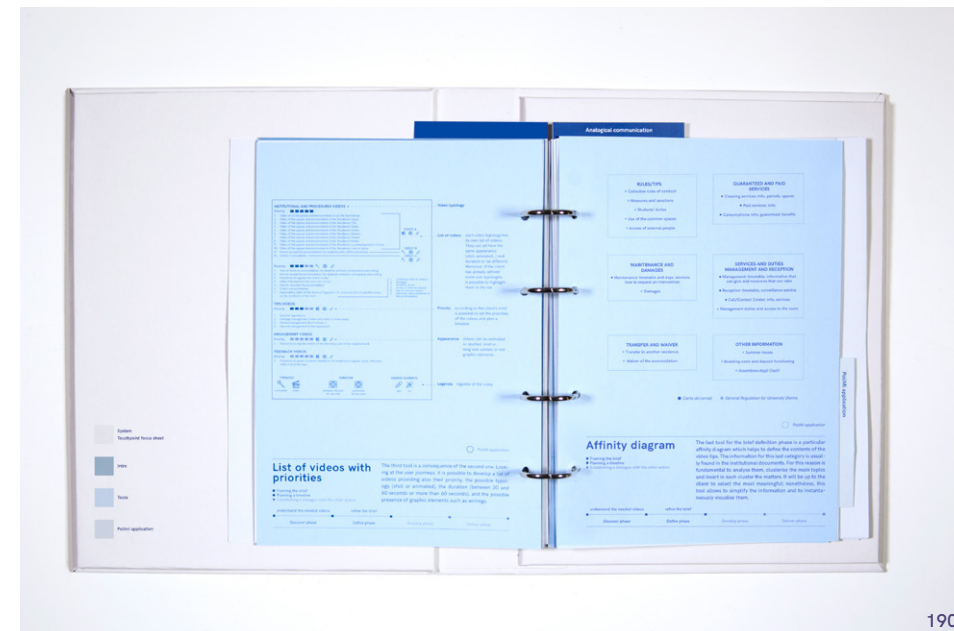
189

fig.188 Introduction of the videos section
fig.189 Introduction of the videos section



48
Layout of the tool
subsection

The *Tools* subsection, in an azure blue colour, has the title on the bottom of the page followed by a brief description. Under the title some boxes indicate the function of the tool, and, underneath them, a timeline divided according to the phases of the double diamond which indicates when to use the tool. Finally, the graphic representation of the tool is centered on the page, usually enriched with additional information that explains how to fill out or use it and, if needed, a graphic element stating that the tool is explained using a PoliMi application.

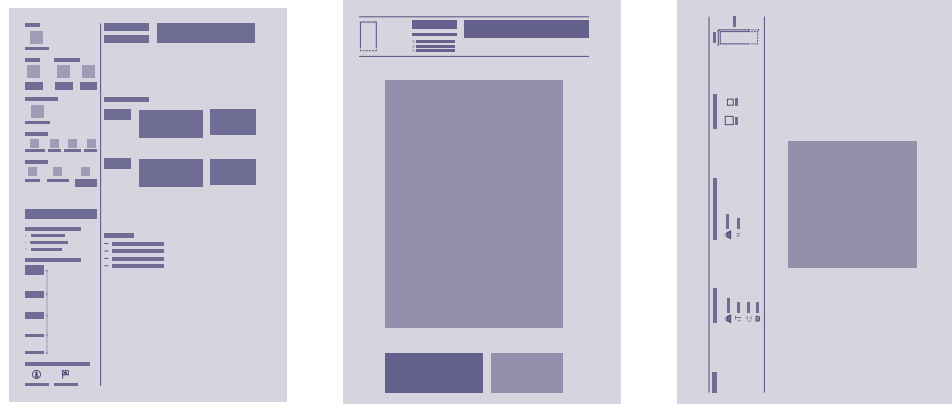


190



191

fig.190 Tools subsection
fig.191 Tools subsection

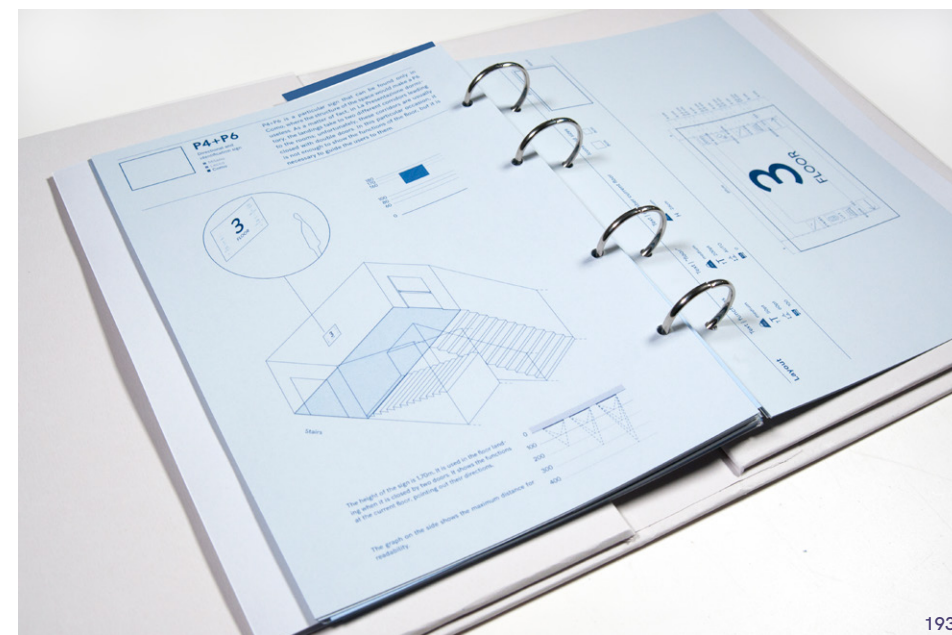


49
Layout of the PoliMi
application subsection

The *PoliMi application* subsection shares the same layout of the introduction, with title and description on the top and the graphics underneath. Only when explaining the layout of the wayfinding signs, as well as the structure of the videos, the layout changes and exploits the page differently. In this case the pages are coloured in a cool blue.



192



193

fig.192 PoliMi subsection in the videos
section
fig.193 PoliMi subsection in the wayfinding
section
fig.194 PoliMi subsection in the videos
section

Navigator

This little navigator recalls the system ecology explained in the introduction of the manual. From the graphic is possible to understand for which moment we are designing, the typology of communication involved as well as all the actors.

Typology of communication

Here is possible to see among who the communication takes place and its typology (internal, external, or institutional)

Typology of touchpoint

Tangible, intangible or digital touchpoint

Moment of the journey

The moments of the journey considered are five and refer to the moments when the touchpoint may become relevant. They are: decision making support, request of stay, preliminary steps, stay, after.

Co-design opportunities

Possible clients and partners

List of all the possible clients of the project but also of possible helpers. Clients and partners refer to PoliMi application but, as it will be possible to observe, they are equivalent to the ones that other Institutions can have.



Informative or experiential

Each touchpoint can provide information but also an experience. The experiences that the touchpoints create should share common features with each other since they are part of the same system.

50
Layout of the touchpoint focus sheet

All the touchpoints that are not developed in detail are presented through a touchpoint focus sheet, where each entry is the result of the study of PoliMi communication system. Since this page has a straight connection with the introduction on the system, it shares the same cool grey for its pages.



fig.195 Touchpoint focus sheet in the videos section

fig.196 Touchpoint focus sheet in the videos section



Conclusions

Investigating and reflecting on the student housing system of a university was the starting point of this research. Before presenting the results, the critical points of the analysis will be presented.

At first spaces, functions and services have been analysed concerning the different users' needs and habits. The investigation has revealed four organisational models, which allow different spatial dispositions, answering to the various necessities of both privacy and socialisation.

Subsequently, the communication of a student housing has been examined introducing the two definitions of internal and external communication. Referring to this analysis, the condition of the Milanese universities has been analysed demonstrating that the communication system, which refers not only to the use of media but also to the use of spatial solutions, lacks a well-studied design. For this reason, the best practice of the PoliMi research project *Comunicare Ospitando* has been described and analysed reflecting on future steps as well as on the successes and failures of the process. The results of the research, together with the necessity of creating the guidelines for *Comunicare Ospitando* have resulted in an extensive study of the communication system of a student housing, which have proven to be one of the most crucial aspect for the creation of an internal community, but also one of the most underestimated in the Milanese area. Thanks to four tools the system has been analysed understanding its elements, attributes, and actors. Since the analysis is the result of a metadesign approach to the project one of the tools that belong to this subject, the manual, has been investigated together with the toolkit. The case studies, together with the elements that the tool must contain has led to the realisation of a hybrid between a manual and a toolkit. The versatility of the designed manual makes it suitable for the use of diverse users, allowing to understand the communicative sphere of a student housing and have access to applicative tools as well as to PoliMi applications explained through technical guidelines.

The design of the manual has always been the final goal of the research. Thanks to its hybrid nature the tool tries to answer to different needs and to solve the restrictions of both the manual and the toolkit. Thanks to the discipline of service design, its tools and methodologies have been applied, often hacking them in order to conform to the study of the communication system, which can be defined as a system within the system.

The aim of the project was trying to create a complete

package able to explain the system, the tools, and the methodologies that compose the design of the communication system of a student housing. The tool is not only meant to help designers but also all the figures involved with student housing management, to help them shift their mind from a micro to a macro view of the entire system.

The manual will now be employed by the designers that will carry on *Comunicare Ospitando* project as a precious resource which allows gaining valuable insights and explanations on the system as well as the guidelines to follow. The next steps, as it has been discussed, could involve the development of the environmental communication and the videos belonging to the tips category. From the manual, the designers will understand the general mood of the spatial and audio-visual communication and they could be able to create new projects able to preserve the identity and the coherence of the system. According to their comments and feedbacks, it will be possible to develop further and implement the usability of the manual or, if it proves to be effective as it is, it will be enriched with new tools and guidelines that will add meaning and value to the system.

Since the manual has been commissioned and designed for the Conservation and Building Services in collaboration with PoliMi Desis Lab, it will be first distributed in their two offices. Once that the manual has been tested during the prototype phase it will be probably announced and published on some articles and PoliMi channels. At that point, the other Institutions, together with the design agencies interested on the topic, can request the manual and obtain a printable copy of it with the assembly instructions. The aim of *How to* is not only to be used by PoliMi but also by other universities in Italy, as well as on the rest of Europe where the topic of the student housing is further advanced.

Solving problems, innovating, and being able to offer the best experience possible are the primary roles of service design. I believe that this project is not only the result of hacking tools but also of hybridisation of roles, where service design joins spaces and communication.

Bibliography

Acciarri, L. (2005). *Comunicare il progetto: elementi di regia nella narrazione del progetto complesso* (Master thesis). Politecnico di Milano.

Balducci, A., Cognetti, F., Fedeli, V. (2010). *Milano, la città degli studi. Storia, geografia e politiche delle università milanesi*. Milano: Editrice Abitare Segesta.

Baratta, A., Carlini, S. (2012). *Alloggi e residenze per studenti universitari. L'esperienza del programma 338/2000. Housing and residences for university students. The experience of the programme 338/2000*. (Vol. 4, p. 262). Techne.

Bauer, E. K., Mayer, D. (2009). *Orientation & Identity: Portraits of Way Finding Systems | Porträts internationaler Leitsysteme*. Springer.

Belforte, S. (1996). *Collegi universitari: esempi e progetti a confronto*. Celid.

Bellini, O. E. (2015). *Student housing 1. Atlante ragionato della residenza universitaria contemporanea*. Maggioli.

Bellini, O. E., Bellintani, S., Ciaramella, A., Gatto, M. L. D. (2015). *Learning and living. Abitare lo Student Housing*. FrancoAngeli.

Bellintani, S., Bellini, O. E., Ciaramella, A. (2016). *Learning and living the student residence. A new design beyond the Law*

Berger, C. (2009). *Wayfinding: Designing and Implementing Graphic Navigational Systems*. Rockport Publishers.

Berry, L. L., Carbone, L. P., Haeckel, S. H. (2002). *Managing the Total Customer Experience*. MIT Sloan Management Review

Bertola, P. (2018). *Metadesign as an implicit practice in Italian design culture*. Retrieved from https://www.pok.polimi.it/courses/course-v1:Polimi+METADESIGN101+2018_M9/courseware/00d0e3e101ce429e9f06e6bde1f406c7/b3d5b62b49c046b3bf489ba6a44dc081/

Bertolotti, E., Daam, H., Piredda, F., Tassinari, V. (2016). *The pearl diver: the designer as storyteller*. DESIS Philosophy Talks-Dipartimento di Design, Politecnico di Milano.

Bogoni, B. (2001). *Abitare da studenti. Progetti per l'età della transizione*. Tre Lune. Retrieved from <https://re.public.polimi.it/handle/11311/665210#.W6Ns3hMzaqA>

Bologna, R. (2014). *Il progetto della residenza per studenti universitari*. In R.

Del Nord (Ed.), *Il processo attuativo del piano nazionale di interventi per la realizzazione di residenze universitarie* (pp. 107-157). Firenze: EDIFIR.

Bosch, A. L. M. van den, de Jong, M. D. T., Elving, W. J. L. (2004). *Managing corporate visual identity: use and effects of organizational measures to support a consistent self-presentation*. *Public Relations Review*, 30(2), 225-234.

Buti, L. B. (2008). *Ergonomia olistica. Il progetto per la variabilità umana*. FrancoAngeli.

Cannon, T. (2015, July 27). *How are universities using social media?* Retrieved from <https://www.redbrickresearch.com/2015/07/27/how-are-universities-using-social-media/>

Cascone, S., Sciuto, G. (2016). *Le Residenze Universitarie e il rapporto con la città*

Catalano, G., Francalanci, A. (2010). *L'Università per gli studenti e non solo: il tema della residenza*. In A. Balducci, F. Cognetti, & V. Fedeli (Eds.), *Milano, la città degli studi. Storia, geografia e politiche delle università milanesi* (pp. 199-203). Milano: Editrice Abitare Segesta.

Ciaramella, A., Del Gatto, M. L. (2012). *Housing universitario di iniziativa privata: scenari di sviluppo e fattori critici di successo*. *Techne*, 4, 271-279.

Ciuccarelli, P. (2007). *Brand as a complex system and the need of a meta-design approach*, (05), 17.

Collina, L., Di Sabatino, P., Galluzzo, L., Mastrantonio, C., Mazzocchi, M. (2018). *Spatial and Service Design: Guidelines Defining University Dormitories*. In A. Marcus, W. Wang (Eds.), *Design, User Experience, and Usability: Theory and Practice* (Vol. 10918, pp. 14-26). Cham: Springer International Publishing.

Collina, L. (2003). *Per una mappa del metaprogetto*. Retrieved from <https://re.public.polimi.it/handle/11311/667568#.W7XiGxMzaqA>

Colombi, C. (2013). *La centralità delle narrazioni nel Metaprogetto*. In A. Penati (Ed.), *Il design costruisce mondi. Design e narrazioni* (pp. 23-33). Mimesis Edizioni.

Corraini, P., Caprioli, S. (2008). *Manuale di immagine non coordinata*. Corraini.

Denning, S. (2012). *The Springboard. How Storytelling Ignites Action in*

Knowledge-Era Organizations. Taylor & Francis. Retrieved from <https://books.google.it/books?id=ZOzs0SD8DNUC>

Deserti, A. (2001). *Progettare le caratteristiche immateriali del prodotto*. In A. Deserti (Ed.), *Il sistema progetto. Contributi per una prassi del design* (pp. 155-172). Poli.design.

Design Council. (2005). *The Design Process: What is the Double Diamond?* Retrieved from <https://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond>

Fabris, P. (2014). *6 trends steering today's college residence halls*. Retrieved from <https://www.bdcnetwork.com/6-trends-steering-todays-college-residence-halls>

Filho, M. (2012). *The Brand Experience Manual: Addressing The Gap Between Brand Strategy And New Service Development*. Proceedings of DMI's 2012 Research Conference. 08.08.2012-09.08.2012., 667-677.

Fontana, A., Sassoon, J., Soranzo, R. (2010). *Marketing Narrativo. Usare lo storytelling nel marketing contemporaneo*. Franco Angeli Edizioni.

Forlizzi, J., Ford, S. (2000). *The Building Blocks of Experience: An Early Framework for Interaction Designers*

Giaccardi, E. (2005). *Metadesign as an Emergent Design Culture*. Leonardo, 38(4), 342-349.

Gibson, D. (2009). *The Wayfinding Handbook: Information Design for Public Places*. Princeton Architectural Press.

Gislon, D. C. (2014, February 22). *Come migliorare la leggibilità del testo. Dimensione e colore*. Retrieved from <https://carlogislon.it/migliorare-leggibilita-testo/>

Gruen, D., Rauch, T., Redpath, S., Ruettinger, S. (2002). *The Use of Stories in User Experience Design*. International Journal of Human-Computer Interaction, 14(3-4), 503-534.

Guixé, M. (2003). *Libre de contexte: context-free, kontext-frei*. mu. dac. Musée de design et d'arts appliqués contemporains; Bâle: Birkhäuser-Éditions d'architecture.

Hauschildt, K., Mishra, S., Netz, N., Gwosc, C. (2015). *Social and economic conditions of student life in Europe: synopsis of indicators; eurostudent V; 2012-2015*. W. Bertelsmann Verlag.

Jordá-Albiñana, B., Ampuero-Canellas, O., Vila, N., Rojas-Sola, J. I. (2009). *Brand identity documentation: a cross-national examination of identity standards manuals*. International Marketing Review, 26(2), 172-197.

Kapferer, J.-N. (2008). *The new strategic brand management: creating and*

sustaining brand equity long term (4th ed., New ed). London ; Philadelphia: Kogan Page.

Khanna, M., Jacob, I., Yadav, N. (2014). *Identifying & Analyzing Touch Points for Building a Higher Education Brand*. Journal of Marketing for Higher Education, 24(1), 122-143.

Kolibar, S. (2018). *Student Housing keynote: Stefan Kolibar, Head of Marketing, StudentMarketing*. Retrieved from https://www.youtube.com/watch?time_continue=5&v=4sDSWvM9LKg

La Pietra, U. (1975). *I gradi di libertà*. Milano: Jabik & Colophon.

Leiserowitz, N., Broz, D., Meier, S., Cool, N., Chung, J., Churchill, V., Passini, V. (2016). *Campus Life. Investigating how students study, and how residence hall design can best support them*. Gensler Research. Retrieved from https://www.gensler.com/uploads/document/474/file/GenslerResearch_RemakingStudentLiving_lores_2016.pdf

Lindsay, C., Rocchi, S. (2004). *Context-of-use Co-research methodology*. In E. Manzini, L. Collina, S. Evans (Eds.), *Solution oriented partnership. How to design industrialised sustainable solutions* (pp. 97-107). Cranfield, UK: Cranfield University.

Lockwood, T. (2007). *Design Value: A Framework for Measurement*. Design Management Review, 18(4), 90-97.

Lockwood, T. (2009). *Transition: How to Become a More Design-Minded Organization*. Design Management Review, 20(3), 28-37.

Lupacchini, A. (2010). *Design olistico. Progettare secondo i principi del DfA*. Alinea Editrice.

Mager, B., Sung, T.-J. (David). (2011). *Special Issue Editorial: Designing for Services*. International Journal of Dsign(5(2)), 1-3.

Manzini, E., Jégou, F., Meroni, A. (2004). *Desing Plan, a design toolbox to facilitate solution oriented partnership*. In E. Manzini, L. Collina, S. Evans, *Solution oriented partnership. How to design industrialized sustainable solutions*. Cranfield University.

Manzini, E., Jégou, F., Meroni, A. (2009). *Design oriented scenarios: generating new shared vision of sustainable product service systems*

Melewar, T. C., Hussey, G., Srivoravilai, N. (2005). *Corporate visual identity: The re-branding of France Télécom*. Journal of Brand Management, 12(5), 379-394.

Mollerup, P. (2005). *Wayshowing*. Müller.

Moritz, S. (2005). *Service Design. Practical access to an evolving field*. London. Retrieved from https://issuu.com/st_moritz/docs/pa2servicedesign/4

Muneratto, G. (2007). *Il visual design nelle organizzazioni*. FrancoAngeli.

Penati, A. (2001). *Il processo progettuale in una dimensione sistemica*. In A. Deserti (Ed.), *Il sistema progetto. Contributi per una prassi del design* (pp. 3-35). Poli.design.

Penati, A. (2013a). *E' il design una narrazione? Design e narrazioni*. Mimesis Edizioni.

Penati, A. (Ed.). (2013b). *Il design costruisce mondi. Design e narrazioni*. Mimesis Edizioni.

Pharr, J. M. (2016). *University Branding 2.0—Harnessing the Power of Social Media for Open-Source Branding and Brand Co-Creation of Colleges and Universities*

Picciani, S. (2009). *La segnaletica ospedaliera for all. Sistema di artefatti comunicativi abilitanti per gli interni dell'Ospedale Clinicizzato di Chieti* (Master thesis). Università degli studi "G. d'Annunzio".

Piredda, F., Ciancia, M., Venditti, S. (2015). *Social Media Fiction*. In H. Schoenau-Fog, L. E. Bruni, S. Louchart, S. Baceviciute (Eds.), *Interactive Storytelling* (Vol. 9445, pp. 309-320). Cham: Springer International Publishing.

Polaine, A., Lovlie, L., & Reason, B. (2013). *Service Design: From Insight to Inspiration*. Rosenfeld Media.

Pullman, M. E., & Gross, M. A. (2004). *Ability of Experience Design Elements to Elicit Emotions and Loyalty Behaviors*. *Decision Sciences*, 35(3), 551-578.

Rizzo, A. (2004). *Abitare nella città moderna. La casa temporanea per studenti*. Grafill.

Rockwell, C. (2008). *The Mathematics of Brand Satisfaction*. *Design Management Review*, 19(2), 75-81.

Rutter, R., Roper, S., Lettice, F. (2016). *Social media interaction, the university brand and recruitment performance*. *Journal of Business Research*, 69(8), 3096-3104.

Sametz, R., & Maydoney, A. (2003). *Storytelling through design*. *Design Management Journal (Former Series)*, 14(4), 18-34.

Sassoon, J. (2012). *Web storytelling. Costruire storie di marca nei social media: Costruire storie di marca nei social media*. Franco Angeli Edizioni.

Tassi, R. (2008). *Design della comunicazione e design dei servizi. Il progetto della comunicazione per la fase di implementazione* (Doctoral dissertation). Politecnico di Milano. Retrieved from http://www.servicedesigntools.org/sites/default/files/RobertaTassi_DESIGN_DELLA_COMUNICAZIONE_E_DESIGN_DEI_SERVIZI.pdf

The Class of 2020. (2017). *Annual Trend Report. Learning Hubs: The future of the university city*.

The Class of 2020. (2018). *Annual Trend Report. The Global Student: Building Bridges over Growing Barriers*.

Van Onck, A. (1965). *Metadesign*. Edilizia Moderna, 85.

Voss, C., Zomerdijk, L. (2007). *Innovation in Experiential Services - An Empirical View*, 41.

Wetter-Edman, K., Sangiorgi, D., Edvardsson, B., Holmlid, S., Grönroos, C., Mattelmäki, T. (2014). *Design for Value Co-Creation: Exploring Synergies Between Design for Service and Service Logic*. *Service Science*, 6(2), 106-121.

Wheeler, A. (2017). *Designing brand identity: an essential guide for the whole branding team*. John Wiley & Sons.

Zomerdijk, L. G., Voss, C. A. (2010). *Service Design for Experience-Centric Services*. *Journal of Service Research*, 13(1), 67-82.

Zurlo, F. (2018). *Metadesign as innovation and strategic approach*. Retrieved from https://www.pok.polimi.it/courses/course-v1:Polimi+META-DESIGN101+2018_M9/courseware/00d0e3e101ce429e9f06e6bde1f-406c7/022791375c9b44bfaef4810b17da4925/

Sitography

Anagrafe Nazionale Studenti MIUR Retrieved from anagrafe.miur.it/php5/home.php?&anni=2016-17&categorie=cittadin&status=iscritti&tipo_corso=TT&&code_fas_citt=2

Bikuben Student Residence. (2012, June 4). Retrieved from aart.dk/en/projects/bikuben-student-residence

CampUS Retrieved from www.progettocampus.polimi.it/progetto/

Collective Action Toolkit - Transforming Communities | frog case study. Retrieved from www.frogdesign.com/work/frog-collective-action-toolkit

Design Kit. Retrieved from www.designkit.org/

DesignStudio creates new logo for Airbnb. (2014). Retrieved from www.dezeen.com/2014/07/16/airbnb-rebrand-designstudio-logo-belo/

Gryesten, J. R., Mundy, S. S. (2014, February 9). *Dorms Disclosed: Bikuben Kollegiet.* Retrieved from uniavisen.dk/en/dorms-disclosed-bikuben-kollegiet/

Hoas.fi. (2015). *1/26 Simo the Everyday Hero: changing fuses.* Retrieved from www.youtube.com/watch?v=bftZlhqHf4U

Law no. 338 Retrieved from www.parlamento.it/parlam/leggi/00338l.htm

Living at Tietgenkollegiet | Tietgenkollegiet. (n.d.). Retrieved from tietgenkollegiet.dk/en/living-at-tietgenkollegiet/

Manual Meaning in the Cambridge English Dictionary. Retrieved from dictionary.cambridge.org/dictionary/english/manual

Manuals. Retrieved from dom-publishers.com/collections/handbuch-und-planungshilfe

methods.18f.gov/

Restaurant Day (2015). *Restaurant day.* Retrieved from vimeo.com/64311109

Ryerson University Student Learning Centre. (n.d.). Retrieved from snohetta.com/project/250-ryerson-university-student-learning-centre

Tendril. (2016). *How to escape from an anaconda.* Retrieved from vimeo.com/180893568

The Student Hotel. (2017). *The Student Hotel | Charlie talks about the gym.* Retrieved from <https://www.youtube.com>

The Student Hotel. (2017). *The TSH adventure starts with the Complete Connected Community.* Retrieved from www.youtube.com/watch?v=Vm3AwqTEc5Y

The Student Hotel. (2018). *The Student Hotel | Amsterdam City | Meeting Rooms.* Retrieved from www.youtube.com/watch?v=j1ipcZIs3gw

Tietgen Dormitory / Lundgaard & Tranberg Architects. (2014, February 7). Retrieved from www.archdaily.com/474237/tietgen-dormitory-lundgaard-and-tranberg-architects/

Toal, A. R. (2015). *Drexel University Online Acceptance Kit.* Retrieved from www.annereillytoal.com/dragon-kit.

Tool kit Meaning in the Cambridge English Dictionary. Retrieved from dictionary.cambridge.org/dictionary/english/tool-kit

Tracy, J. (2015). *Drexel University Online Accepted Students Kit.* Retrieved from www.thedieline.com/blog/2015/7/21/drexel-university-online-accepted-students-kit

TSH The Student Hotel. (2017). *Irene and Vanessa.* Retrieved from www.youtube.com

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- fig.86 *Residenza Javotte*. Retrieved from https://www.unibocconi.it/wps/wcm/connect/bocconi/sitopubblico_it/

albero+di+navigazione/home/campus+e+servizi/servizi/
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- fig.87 *Residenza Spadolini*. Retrieved from https://www.unibocconi.it/wps/wcm/connect/bocconi/sitopubblico_it/albero+di+navigazione/home/campus+e+servizi/servizi/alloggi+on+campus/le+residenze+bocconi
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- fig.92 *Residenza Castiglioni*. Retrieved from <http://www.costazanibelliassociati.it/portfolio.php?id=227>
- fig.93 *The Bocconi Campus*. Retrieved from https://www.youtube.com/watch?v=6OsJ_Dc5H2s
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- fig.96 *Cascina Melghera*. Retrieved from <http://www.unisr.it/campus/residenze-studenti/#residenza-cascina-marghera>
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- fig.99 *Cascina Moncucco*. Retrieved from [IULM/residenza-cascina-moncucco](http://www.iulm.it/wps/wcm/connect/iulmit/iulm-it/Studiare-alla-IULM/Vivere-alla-</p></div><div data-bbox=)

- fig.100 *Residence Iulm*. Retrieved from <http://www.iulm.it/wps/wcm/connect/iulmit/iulm-it/studiare-alla-iulm/vivere-alla-iulm/residence-iulm>
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- fig.107 *milanohousing.it*. Retrieved from <http://www.milanhousing.it/>
- fig.108 *Naba&Domus Housing*. Retrieved from https://www.youtube.com/watch?v=JS_LAXEJMs0
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- fig.110 *Housing anywhere*. Retrieved from <https://housinganywhere.com/it/>
- fig.111 *Uniplaces*. Retrieved from <https://www.uniplaces.com/>
- fig.112 *Prendi in casa uno studente*. Retrieved from <http://www.meglio.milano.it/prendi-in-casa/>
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- fig.114 *DotStay*. Retrieved from <https://www.dotstay.com/>
- fig.115 *Roomtastic*. Retrieved from <https://www.roomtastic.it/>
- fig.116 *Gromia*. Retrieved from <https://www.gromia.com/it>
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- fig.118 *Milan Housing*. Retrieved from <http://www.milanhousing.it/>
- fig.119 *Milan Home*. Retrieved from <http://www.milanstudentapartments.com/>
- fig.120 Monna, V. (2017) *Poster for the co-design session of PSSD Environmental studio*
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- fig.124 Endpoint (2009) *North Glasgow College wayfinding*. Retrieved from <http://www.weareendpoint.com/end-work/north-glasgow-college-wayfinding-signage/>
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- fig.134 Mayer, D. (2009) *Orientation & Identity: Portraits of Way Finding Systems*. Springer, p.199
- fig.135 Mayer, D. (2009) *Orientation & Identity: Portraits of Way Finding Systems*. Springer, p.190
- fig.136 Mayer, D. (2009) *Orientation & Identity: Portraits of Way Finding Systems*. Springer, p.189
- fig.137 Mayer, D. (2009) *Orientation & Identity: Portraits of Way Finding Systems*. Springer, p.258
- fig.138 Mayer, D. (2009) *Orientation & Identity: Portraits of Way Finding Systems*. Springer, p.266
- fig.139 Mayer, D. (2009) *Orientation & Identity: Portraits of Way Finding Systems*. Springer, p.275
- fig.140 Mayer, D. (2009) *Orientation & Identity: Portraits of Way Finding Systems*. Springer, p.265
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- fig.142 Mayer, D. (2009) *Orientation & Identity: Portraits of Way Finding Systems*. Springer, p.51
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- fig.151 The Student Hotel. (2018). *The Student Hotel | Amsterdam City | Meeting Rooms*. Retrieved from www.youtube.com/watch?v=j1ipcZIs3gw

- fig.152 The Student Hotel. (2017). *The Student Hotel | Charlie talks about the gym*. Retrieved from <https://www.youtube.com>
- fig.153 Tendril. (2016). *How to escape from an anaconda*. Retrieved from vimeo.com/180893568
- fig.154 Hoas.fi. (2015). *1/26 Simo the Everyday Hero: changing fuses*. Retrieved from www.youtube.com/watch?v=bftZlhqHf4U
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William Kaufmann, W. (1978) *One book five ways*
- fig.159 Metafont
Knuth, D. E. (1977). *The Concept of a Meta-Font*.
- fig.160 Metacity
MRDV (1999) *Metacity/Datatown*. Retrieved from <https://www.mrvd.nl/projects/MCDT>
- fig.161 Camper store
Martí Guixé (2002) *Camper store*. Retrieved from http://www.guixe.com/interiors/camper_frankfurt/index.html
- fig.162 Camper best seller shop instructions card
Guixé, M. (2003). *Libre de contexte: context-free, kontext-frei*. mu. dac. Musée de design et d'arts appliqués contemporains; Bâle: Birkhäuser-Editions d'architecture. pp. 30-31
- fig.163-165 McCulloch, A. (2014) *Airbnb brand guidelines (2014 rebrand)* Retrieved from <http://andreamcculloch.com/portfolio/#/new-gallery-2/>
- fig.166 DOM Publishers (n.d.) *Architectural diagrams 2*. Retrieved from <https://dom-publishers.com/collections/handbuch-und-planungshilfe/products/architectural-diagrams-2>
- fig.167 DOM Publishers (n.d.) *Competition panels and diagrams*. Retrieved from <https://dom-publishers.com/collections/handbuch-und-planungshilfe/products/competition-panels-and-diagrams>
- fig.168 DOM Publishers (n.d.) *Museum Buildings*. Retrieved from <https://dom-publishers.com/collections/handbuch-und-planungshilfe/products/museum-buildings>
- fig.169 IDEO (2009) *HCD Toolkit on-field application*. Retrieved from <https://www.ideo.com/post/design-kit>
- fig.170 Captain Motion (2011) *This is service design thinking*. Retrieved from <https://vimeo.com/20527888>
- fig.171-172 BIS Publishers (2011) *This is service design thinking*. Retrieved from https://issuu.com/bis-publishers/docs/this_is_service_design
- fig.173 18F (2015) *18F Method cards*. Retrieved from <https://methods.18f.gov/discover/bodystorming/>
- fig.174 18F (2015) *18F Method cards, visual preference testing*. Retrieved from <https://methods.18f.gov/validate/visual-preference-testing/>
- fig.175 *The field guide to human-centred design*. Retrieved from <https://www.ideo.com/post/design-kit>
- fig.176 IDEO (2015) *The field guide to human-centred design* . Retrieved from <http://www.designkit.org/resources/1>
- fig.178 Frog Design (2012) *Collective Action Toolkit*. Retrieved from <https://www.frogdesign.com/work/frog-collective-action-toolkit>
- fig.179 Frog Design (2012) *Collective Action Toolkit*. Retrieved from https://www.frogdesign.com/wp-content/uploads/2016/03/CAT_2.0_English.pdf
- fig.180 Lindsay, C., & Rocchi, S. (2004). *Context-of-use Co-research methodology*. In E. Manzini, L. M. V. Collina, & S. Evans (Eds.), *Solution oriented partnership. How to design industrialised sustainable solutions* (pp. 97-107). Cranfield, UK: Cranfield University. p.103
- fig.181 La Pietra, U. (1975). *I gradi di libertà*. Milano: Jabik & Colophon.
- fig.182 Manzini, E., Jégou, F., Meroni, A (2009) *Stakeholders motivation matrix*. Retrieved from <http://www.servicedesigntools.org/tools/20>
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