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EXPLORING THE FUTURE OF WORKPLACE DESIGN FOR GENERATION Y WORKERS: A PRODUCT-SERVICE SYSTEM DESIGN SOLUTION

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ABSTRACT

This paper, created from the M.Sc. thesis in Product-Service System Design at Politecnico di Milano, aimed to make a review of workplaces; thus analyzed Generation Y workers and explored a product-service system solution. As an outcome of this study, a project brief was generated to design a product-service system which offers a range of spaces located in central open-urban settings for Generation Y. This project's value comes from the fact that; it was an initial idea on how the future of workplace design would be directed. The emphasis given on the users in the design research was another critical issue in this study since Meet&Work provides work-life balance of Generation Y.

Keywords: Workplace design, generation Y, product-service system, worksetting, work-life balance

1 INTRODUCTION

For years of research, architects and designers try to understand the needs of workplaces and design them to achieve higher performance of the workforce (Wallace, 2010; Steelcase, 2006). The success of a workplace design is being related to its ability to attract workforce, and its flexibility to adapt the changing ways of work (Bell & Anderson, 1998). Moreover, it is also stated by Levin (2007) that workplaces are the facilitators that support the knowledge workforce, and their design is becoming more critical by the altering nature of work. Workplace design affects attitude, satisfaction, and performance of workforce (Pogue, 2009; Triandis, 2003; Sunoo, 2000). According to Tanis and Duffy (1999), success is better to be measured with retention and attraction of the workforce rather than corporate efficiency.

In light of all those issues, firstly, background information about the evolution of workplaces, the new ways of working and the worksettings were generated. Secondly, the demographical structure of workers was analyzed. The latest workforce has been mobile, flexible, tech-savvy and trying to achieve work-life balance, so the challenge was to create workspaces to support requirements, reflect needs and diverse ways of working of this workforce (Babcock, 2004). To better understand Generation Y, an online survey was created. Based on the data collected from 222 survey participants, a project brief was generated to design a product-service system which offers a range of spaces located in central open-urban settings for the Generation Y workers to use while they are away from their office.

2 LITERATURE REVIEW

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2.1 WORKPLACES

2.1.1 *The Evolution of Workplaces*

In this part of the literature review, the evolution of workplaces from the beginning of 20th century until the beginning of 21st century is revealed. Meel (2000) discusses the evolution of workplaces in the European context. The office work became widespread and routine in the early 20th century and the design of workplaces was affected while the nature of work was changing. The offices were like large open floor spaces with rows of desks all facing a supervisor and this concept was called *white-collar factories*. In the 1950s, especially after the 2nd World War, the optimist and peaceful character of those years created a new type of office called *glass box*; buildings with continuous and light effect, workers in open plans while supervisors in glazed rooms along the perimeter. In the 1960s, it has been understood that the previous office concept has become unsatisfactory as the importance of communication, information technology (IT) and flexibility emerged. A concept called *office landscape*/Bürolandschaft - with no rooms, desk and all equipments to be scattered around – arose. During the 1970s, the office landscape lost its popularity with the complaints such as high noise level, poor lighting, lack of visual communication and natural ventilation. A solution with combination of cellular offices and open plans, a combi-office, was created with the aim of flexibility and efficiency. The world's first open-plan system with cubicles, Herman Miller's Action Office was one of the most influential examples of *experimental offices* of the 70s. While personal computer (PC) became common equipment in the offices by the mid 1980s, the issue of IT and intelligent buildings emerged. Thus, the offices were equipped to accommodate electronic needs such as cabling and services. The user comfort for privacy, climate control, daylight, outside view, etc. was also another main focus in the *electronic offices* of the 80s as they started to become social spaces. As IT brought virtual to the offices with internet, e-mail, mobile phones, laptops; the workers became free of place and time. The workers started to work in cafes, at home, or at pool and share the workplace using intranets and electronic archives as a result of *virtual office* concept. The alternative offices with desk sharing aspects, with both personal and non-territorial workspaces, with a flexible infrastructure, with break-out areas for informal gatherings, with interaction and teamwork concept, with quiet booths for individual activities, and with open spaces for group work became popular.

2.1.2 *NEW WAYS OF WORKING*

The flexibility in work pattern and way of working is one of the recent trends in workplace design as the workforce is becoming more and more mobile (Worthington, 2006). As all the information was located somewhere within the IT network, people should be able to work flexibly accessing the technology resources anytime within the office or within the wider distributed workplace. The future is considered to be about constructing and managing people's personal and professional life from a growing range of options (Hardy, et al., 2008). People have already started working different patterns over time to assist work-life balance as well as business needs. There are now many examples of flexible working practices such as *homeworking*, *teleworking*, *mobile working*, *hot desking - hotelling*, *virtual team working* and *non-territorial working*. In this part of the literature review, the new ways of working which are emerging today

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are discussed (Laing, 2006; Raymond & Cunliffe, 2000). The e-book, *Working Beyond Walls*, prepared by the Office of Government Commerce in the UK and an international consulting firm DEGW (2008) provides information about new ways of working and categorizes them as it is summarized in this part.

In *homeworking*, people work mainly from home while still sometimes visit the main office. In *teleworking*, people work in office style from a remote location such as home or a local centre while most work is conducted by telephone and jobs and assignments are performed from a distance mostly over a network. In *hot desking – hotelling*, people share workstations over time by a number of individuals within the main office space where workstations can also be bookable and are often located in team or special zones in the office building. In *virtual team working*, people work together virtually as teams across different geographic locations using technology to communicate and share work via teleconferencing, videoconferencing, and virtual private networks as technology allows going further in terms of sharing files across locations and they can be edited by others in real time. In *mobile working*, people spend most of their time travelling and working from different locations without a permanent main office while communicating and working by using mobile phones with 3G and GPRS, wireless internet enabled laptops, personal digital assistants (PDAs) and such handheld devices that combine computing, telephone/fax, and networking features. In *non-territorial working*, people work within the office using a range of shared and communal spaces, such as sharing workstations in a team environment instead of having one desk per person. This way of working unlinked the work and the place, and broke down the walls with various range of spaces such as *break-out spaces* - provide informal meeting areas; *quiet rooms* - enable one-to-one discussions, private meetings and calls; and *meeting rooms* - spacious, well-equipped areas for meetings, team working.

2.1.3 *WORKSETTINGS*

Work environments are created aiming to relate work activities - such as research, writing, telephoning, video and tele conferencing, project team or concentrative individual modes of working - to differently designed worksettings (Hardy, et al., 2008). The worksettings are generally divided in two categories; as *within the office* and *beyond the office.* The worksettings within the office can be categorized as *dedicated offices/desks*, *hot offices/desks*, *quiet rooms*, *project spaces*, *meeting rooms*, *break-out areas*, *café/restaurant/kitchen areas*, *resource/storage areas* and *business lounges*, *etc*. On the other hand, the worksettings beyond the office can be categorized as *home*, *train*, *café/restaurant*, *hotel room*, *hotel lobby*, *airport lounge*, *library*, *business club*, and *client/customer premises*, which can be all categorized as temporary workspace options. Those worksettings emphasize the change in the role of workplaces, how the worksettings are evolved accordingly and also affected by the evolving technology and connectivity.

2.2 DEMOGRAPHIC STRUCTURE OF THE KNOWLEDGE WORKERS

In this section, the ever changing demographic structure of workers is briefly analyzed. The current demographic statuses of the workers are Veterans (born from 1922 to 1945), Baby Boomers (born from 1946 to 1964), Generation X (born from 1965 to 1979) and Generation Y (born from 1980 to 2000). They all

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have diverse core values, work ethics and values, work definition, interaction style, motivation messages and vision of work-life balance (Table 1).

	GENERATION Y	GENERATION X	BABY BOOMERS	VETERANS
CORE VALUES	Realism, confidence	Scepticism, fun, informality	Optimism, involvement	Respect for authority
WORK ETHICS & VALUES	What's next, multitasking, entrepreneurial, tolerant, goal-oriented	Eliminate the task, self-reliance, sceptical, want structure and direction	Workaholics, work efficiently, personal fulfilment, desire quality	Hard work, sacrifice, duty before fun
WORK IS	means to an end, fulfilment	difficult challenge, a contract	exciting adventure	obligation
INTERACTIVE STYLE	Participative	Entrepreneur	Loves to have meetings	Individual
MESSAGES THAT MOTIVATE	Work with other bright and creative people	Do it your way, forget the rules	You are valued	Your experience is respected
WORK & FAMILY LIFE	Exact balance	Balance	No balance, work to live	Work, work, work

Table 1 – Workplace Characteristics (Hammill, 2005)

Among all the other generations, Generation Y represents 25.5 % of the population with 1.7 billion representatives worldwide. As they are the newest, rising, youngest and powerful workforce of 21st century, they cause the businesses to rethink their working practices and adapt their work environments accordingly (Generation, 2008). According to the analysis, Generation Y would continue to be the main generation of workers for at least two decades, thus would bring new changes to the workplace that need to be addressed (Asthana, 2008). Their multiple expectations from an organization – it is not just the job description but the workplace culture, the variety, fun, training, management style and flexibility that drives them (Controls, 2010).

Generation Y has been exposed to technological advances during their formative years so the digital language and technology is almost their first language - their mother tongue (Palfrey & Gasser, 2008). Thus, they are called *Digital Natives*, while previous generations are *Digital Immigrants* who migrate to the latest technology (McCrindle, 2010).

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3 METHODOLOGY

3.1 GENERATION Y AND THEIR WORKPLACE SURVEY

To better understand Generation Y workers, their needs and expectations from workplace and from life apart from the findings found in the literature, an online survey is created.

The survey tries to gather information about Generation Y characteristics, choice of company, travel and location, way of working, workplace and workspace design, creativity & productivity factors, facilities management/support spaces, environmental issues as well as their most important criteria in work environment and description of ideal workplace. Johnson Controls' Report (2010) is taken into consideration while this survey is created.

3.2 FɪNDɪNGS

Based on the data collected from 222 survey participants, born between 1980 and 1992, we can summarize the following (Figure 1-5):

Figure 1: Respondents' gender

Figure 2: Respondents' country of origin

Figure 3: Respondents' occupation

Even though female respondents are a bit more than the males, it can be stated that the survey would have a common result for both genders. The survey also has respondents from every age category between 1980 and 1992, who are

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mostly from Turkey and Italy; but also from other parts of the world, mainly Europe. Their occupations also vary, however most of them are from engineering, art/design, finance/management, service, etc.
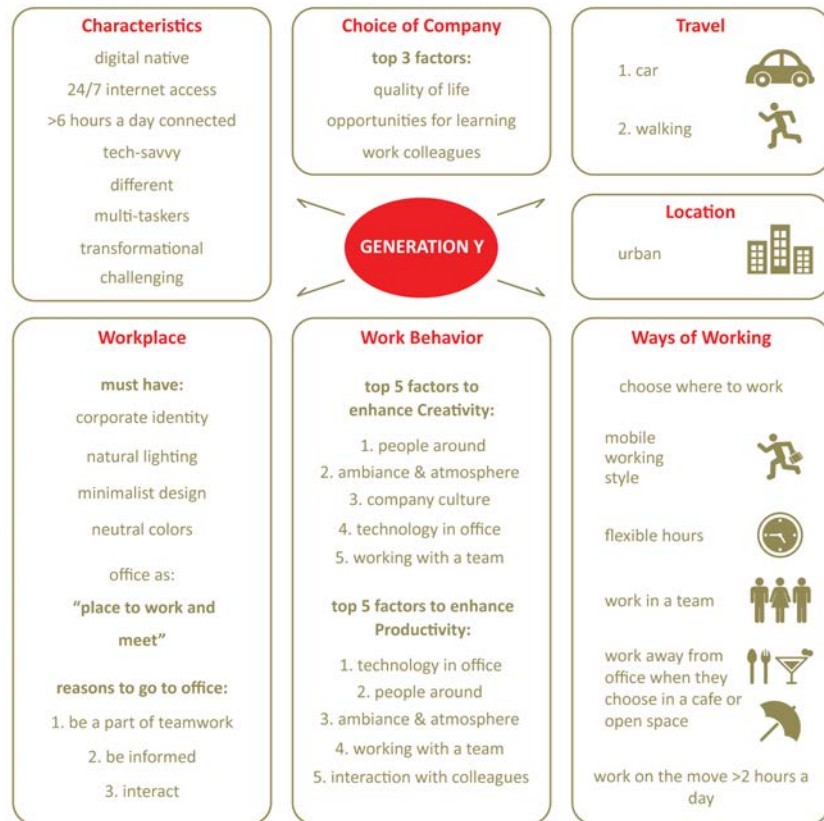

Figure 4: Generation Y and their Workplace Survey Report - part 1

— Characteristics:

The respondents are actual *digital natives*. 98% have 24/7 internet access. 76% spend more than 5 hours a day connected. 25% spend even more than 12 hours. 58% think they are *tech-savvy* (experienced and well-informed about technology) while 36% think they are in the middle.

— Choice of Company:

The respondents want *work-life balance*. The work should bring quality to their lives. They are *eager to learn new things*, thus they want to work in a place where they can add more and more to their knowledge. Their colleagues are their *motivation at work*. Money only plays the 5th *role* in their choice of a company.

— Travel / Location:

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Even though the major part (32%) still wants to use their car, 26% want the workplace so close to be able to *walk*. 72% prefer their workplace to be located in an *urban setting*.

— Ways of Working:

88% want to *choose where they work*. Flexibility is needed on the place of work. 77% prefer mobile working style in which they work in various locations (home, cafe, park, etc.). 81% want to be able to work *whenever they want*. Flexible hours would make the work-life balance possible. 73% prefer *working in flexible hours* in which they don't have a fixed start and end time, but a minimum number of hours to do every week. They prefer to be flexible with a certain time limit to reach. While 40% prefer *working in a team*, 37% prefer both in a team and individually. While 77% prefer *working away from office*, 54% want to have their own control over choosing it. Thus, that would help them to have a perfect work-life balance. While 31%'s *preference of working away is an open space* such as park, beach or square; 30% prefer cafe. While 69% want to *work on the move* at least 2 hours a day, 37% prefer even at least 4 hours.

— Workplace:

96% would like their *workplace to have corporate identity*. 68% prefer *working in minimalist spaces* with *natural lighting* (71%) and *neutral colours* (62%). While 58% would rather see *the office as a place to work*, 42% see it *as a place to meet*. That balance in the responses would be considered. Top three reasons to *go to the office even though they don't need* are *to be part of team work* (22%), *to be informed* (19%), and *to interact* (18%).

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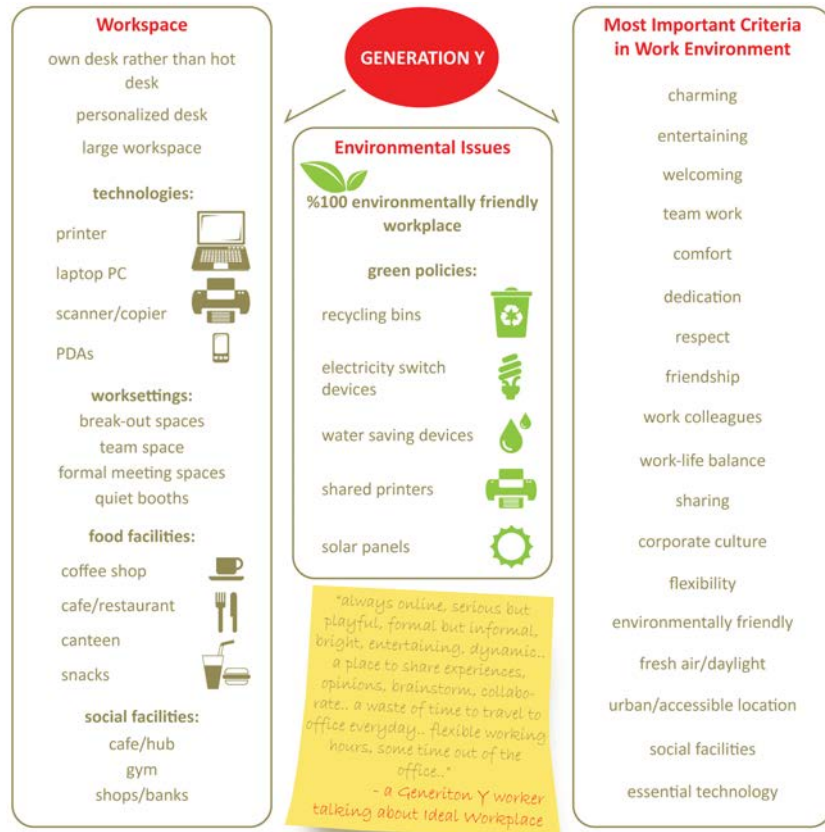PARIS SORBONNE UNIVERSITY
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Figure 5: Generation Y and their Workplace Survey Report - part 2

— Workspace:

85% prefer to have their *own desk* instead of a hot desk or a shared desk. 82% would like to *personalize their desk*, and 65% prefer *working in slightly large spaces* around 15-20 m^2.

4 PROJECT

4.1 PROBLEM STATEMENT

The context and nature of work is changing as well as the demographical structure of knowledge workers. Generation Y is the one who would shape the future of work. Their needs, values and expectations are constructing the workplace idea of how, where and when; and are going to do that for the next twenty years as they will continue to be the main generation workers.

It has been understood that Generation Y workers never compromise the quality of their lives. They always manage to achieve a work-life balance. They are eager to learn, and always perform the work they love. They want to work flexibly in a mobile style, be able to work on the move at least 2 hours a day and choose where to work. Their preference of working away is a cafe-style

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place where they can also meet people, be informed, interact and socialize in an open urban environment where they can commute easily.

These kinds of working/meeting spaces dedicated to those needs and expectations of Generation Y workers are missing. The brief of the thesis is to offer a service system which provides a range of spaces located in central open urban settings for the Generation Y workers to use while they are away from their office.

4.2 THE SERVICE SYSTEM

Meet&Work is a service-system for Generation Y to work, have meetings and meet in mobile spaces to be located in open-urban environments, provided in any time/day of the week. The service system has three main components (Figure 6).

Figure 6: Meet&Work System Map

4.2.1 ***Digital platform***

Meet&Work should have a digital platform where people register to the service, be a member, book the services and spaces, interact and contact with other users/members. To be a user/member of Meet&Work, people have to register to the service (Figure 7).

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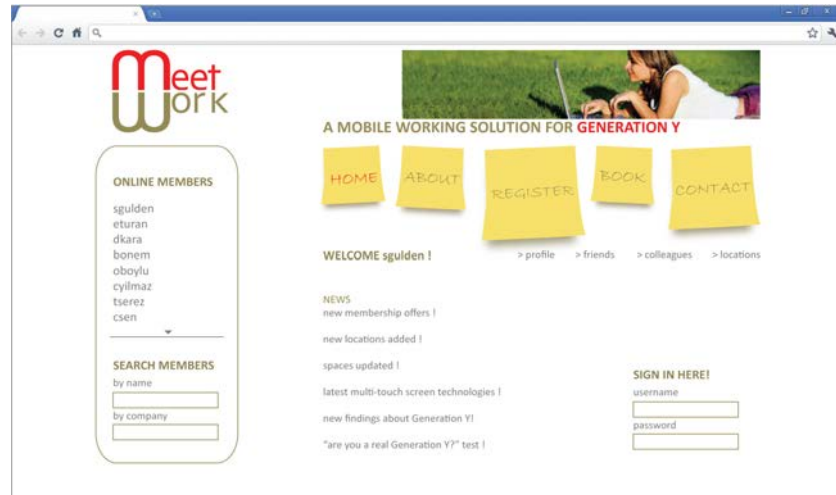PARIS SORBONNE UNIVERSITY
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Figure 7: Meet&Work Digital Platform

People can choose the locations in which they want to use the service in the map. Then, people choose from the space options, either work booth, team space or meeting space (Figure 8).

Figure 8: Meet&Work Digital Platform

4.2.2 **ID card**

After the registration process using the digital platform, all the members get an ID card. This card is used to enter and use the spaces, store personal and business data of the user and locate all the members using the service (Figure 9).

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Figure 9: Meet&Work ID Card

4.2.3 **Space**

The spaces should provide Gen Y members a mobile, technological, user friendly, flexible environment in which they can do their concentrative work individually, or meet with colleagues to perform team work, or have meetings. Three kinds of spaces offer three kinds of experience:

— *Work booths* provide a concentrative individual work in a complete touchscreen and personalized environment.
— *Team spaces* provide an interactive team work in a complete touchscreen space to share and exchange ideas instantly, with personalized workspaces for every individual worker.
— *Meeting spaces* provide a hi-tech meeting either formal or informal in a complete touchscreen environment which can be customized according to company data, with personalized workspaces for every individual worker.

Meet&Work spaces are to be located in open urban environments where Generation Y workers can reach easily by walking or public transportation.

4.3 USER EXPERIENCE

In this final part of the project brief, the journey of the whole experience of Meet&Work is described in detail within a user scenario and it takes place in Istanbul, Taksim Park location in Turkey.

Ali, 28, is a member of Meet&Work for a month. He is an architect, working in an international company. He is mostly out of office, going from one meeting to another with the clients. He finds it always difficult to find a suitable, available space to meet with the clients and the colleagues; and work in-between meetings. Eda, 23, has just graduated and is new in business. She is an interior architect, working in the same company with Ali for a month. They are partners in various projects. She has just decided to try Meet&Work.

Eda enters the digital platform of Meet&Work in her office and registers the service (Figure 10). Next week, Eda and Ali arrange a meeting with their clients. The clients are coming from abroad.

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Figure 10: Meet&Work: Eda's Registration

The week before the clients' arrival, Eda books the Meet&Work work booth in Taksim Park for the first time in-between meetings to spend some more time working on the project. When Eda arrives at the work booth with her card, the system recognizes her (Figure 11).
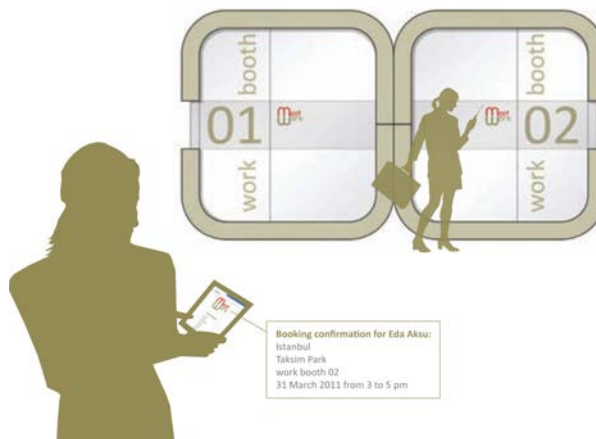

Figure 11: Meet&Work: Eda enters Work Booth

When she goes inside, the door closes and locks itself. The space is very simple; a workspace with touchscreen feature and a fixed seating. The screen on the wall and the workspace welcomes her. The system asks Eda to personalize her workspace. Eda may upload her files to the workspace and work on her touchscreen desk (Figure 12).

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Figure 12: Meet&Work: Eda in Work Booth

While working, a message suddenly pops up. It is from Ali, saying that he wants to discuss some points of the project with Eda. He offers to book a team space for them (Figure 13).

Figure 13: Meet&Work: Eda gets Ali's message

4.3.1 *Team Space - working together*

Team space is also designed in a very simple way. Eda and Ali find a touchscreen desk workspace and a fixed seating inside. Eda and Ali are welcomed by the system. They start working on the desk workspace together, sharing their ideas. They easily switch their workspace to the wall screen by sending the files which they work on. After they leave, the system saves their desktop and the files they upload. Everything can be restored when they come again (Figure 14).

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Figure 14: Meet&Work: Eda and Ali in Team Space

4.3.2 *Meeting Space - meet with clients*

Next week, Eda and Ali meet with their two clients. Marco and Silvia are invited to Meet&Work meeting space as Eda and Ali's guest.

Eda and Ali make their presentations by passing it to the wall screen. They discuss about the project. Marco gets a message from his project manager in Italy, asking about the progress. Ali invites the manager for a video conference. So, they continue the meeting with the manager's participation (Figure 15).

Figure 15: Meet&Work: Eda and Ali in Meeting Space with their clients

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5 CONCLUSION

Meet&Work service system is proposed as a mobile working solution for Generation Y. It helps Generation Y never to compromise the quality of their lives and always to achieve work-life balance. Meet&Work provides a mobile working in flexible hours as either an individual or a team. Meet&Work gives a great emphasis to people and technology by providing mobile workspaces located in open urban environments where they can easily reach.

This project brief can be considered as one of the possible visions for the future of workplace design. Even though various flexible workspaces are being created to support the workforce within the office, a vision for a system beyond the office is considered to be missing. Thus, this vision for the future is generated to design a product-service system which offers a range of spaces located in central open-urban settings for Generation Y.

This project's value comes from the fact that; it is an initial idea on how the future of workplace design would be directed. The emphasis given on the users in the design research is another critical issue in this study since Meet&Work provides work-life balance of Generation Y.

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