Grant Agreement No.: 823783
Call: H2020-FETPROACT-2018-2020

Topic: H2020-FETPROACT-2018-01
Type of action: RIA

D7.1 CRITICAL ISSUES AND SCENARIO DEVELOPMENT

Revision: v.1.0

Work package	WP 7
Task	Task 7.1
Due date	31/12//2019
Submission date	31/12/2019
Deliverable lead	AAU
Version	1.0
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Abstract	This document outlines the process that has been carried out within the first year of the project to identify the critical topics that will be addressed in the scenarios across pre-pilots. The developed scenarios corpus is presented followed by the preliminary requirements for the WeNet application.
Keywords	User research, Field Research, Scenarios, Requirements

Document Revision History

Version	Date	Description of change	List of contributor(s)
V0.1	21/05/2019	Draft with initial TOC	Amalia de Götzen (AAU)
V0.2	31/06/2019	Internal deliverable completed	Giulia D'Ettole, Amalia de Götzen and Thomas Bjørned (AAU)
V0.3	10/10/2019	Preliminary field research completed	Giulia D'Ettole, Amalia de Götzen and Thomas Bjørned (AAU)
V0.4	13/12/2019	Scenarios development completed	Giulia D'Ettole, Amalia de Götzen (AAU)
V0.5	17/12/2019	Review	Laura Schelenz (EKUT)
V1.0	20/12/2019	Final version, with terms disambiguation	Giulia D'Ettole, Amalia de Götzen (AAU)

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** R: Document, report (excluding the periodic and final reports)*

DEM: Demonstrator, pilot, prototype, plan designs

DEC: Websites, patents filing, press & media actions, videos, etc.

OTHER: Software, technical diagram, etc.

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EXECUTIVE SUMMARY

This deliverable summarizes the initial field research that has been conducted across the different pre-pilots with the aim of identifying critical topics in relation to students' life. The performed qualitative data collection will be presented together with the identified student needs, challenges and habits. Scenarios will then be used to specify the use cases and the initial requirements for the WeNet application.

This document is divided into four chapters:

- the first chapter presents a synthesis of the literature about students adaptation to university life, regardless of the specific context and focusing on common challenges related to academic, social and psychological adjustment;
- chapter two presents the field research that has been conducted in the different pre-pilots of the project, explaining also the limitation of such investigation;
- chapter three shortly introduces scenarios and their role in the design process, and explain the methodology used to develop the WeNet scenarios
- in chapter 4 the specific WeNet scenarios are presented and unfolded through the use of service blueprints, allowing a preliminary specification of use cases and requirements.

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Acronyms and Definitions

PREPARATORY PILOT (PRE-PILOTS): In the WeNet context we define preparatory pilots as the different locations in which the preparatory experiments will take place. The preparatory experiments concern the investigation of specific aspects of the final solution: ranging from field research (from surveys to focus groups) up to mockup testing and specific experiments on the technological components that are envisioned to be integrated in the final WeNet application.

PILOT: In the WeNet context we define pilots as the different locations in which the experiments on the different iterations of the WeNet applications will take place.

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1: Literature review: students' challenges

In recent years, students' mobility is rapidly raising both on a national and global scale (Figure 1). Previous literature has highlighted that student mobility is crucial both as part of the human capital, knowledge-based processes, and as development in advanced economies. As a matter of fact, the innovativeness and geographical dimension of a region - or country - is a major factor influencing students mobility [1, 2].
Young people not only move for the search of better welfare and employment opportunities but also because mobility creates "new power structures, within which one has more say and broader options regarding future opportunities" [3]. Youth mobility also implies becoming independent and "achieving (strategies of) agency for themselves" [3]. Studying abroad is often motivated by the search for new experiences and personal growth together with the goal of improving a foreign language and interpersonal skills [4].
In general, students travel to a different place, or in a different country, as a result of the internationalization, globalization, political changes, structural political study programmes, ease of travel, the opportunity to increase one's cultural capital, improved international relations, and the potential of higher economic status [5].

It is relevant to say that students´ motivations to move abroad do not exist in a vacuum but are inextricably intertwined. Recent research also proved how individuals´ social networks play a major role in the normalisation and promotion of mobility abroad [6].

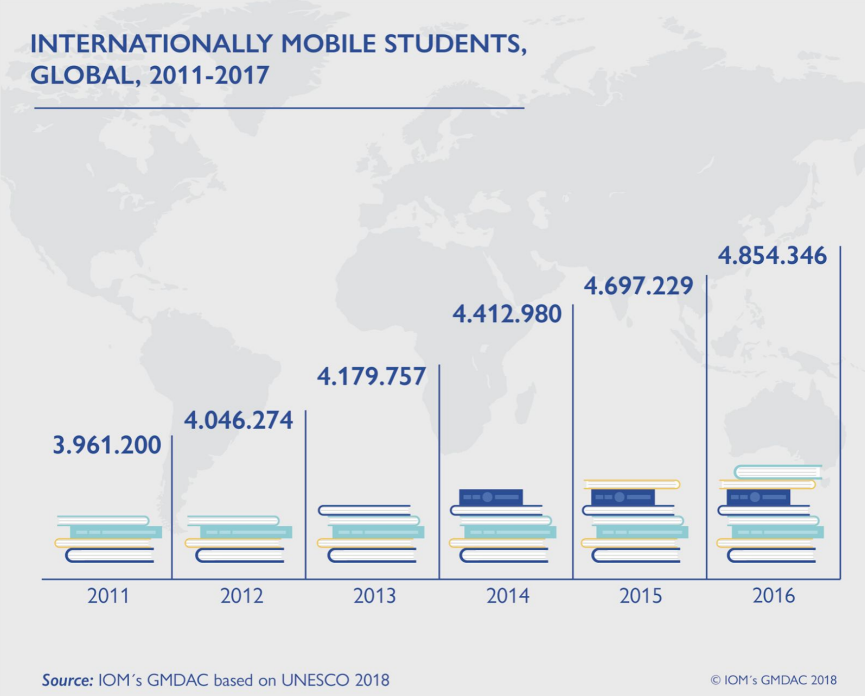

Fig.1 Internationally mobile students, global, 2011-2017. Source: IOM´S GMDAC based on UNESCO 2018.

The students´ transition to university life can be challenging, in particular for students moving abroad. In fact, study abroad incorporates living abroad, experiencing a new culture, changing personal daily routines as well as ways of thinking [5]. Wang et al. [7] describe this transition as a

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"cross-cultural loss", a process in which international students relocating to a new context perceive negative effects such as migration grief, loss, and discrimination.
These negative effects can be caused by the students´ resistance to the new culture or by the social processes in existing communities, which do not offer an entry even to the most engaged international students. That is to say that in many universities these sub-communities exist which seldom reflect the ideal of university as a cohesive community [5]. At the same time it is quite evident that, since student life is a naturally diversity-rich domain, many opportunities are offered to leverage that diversity through ad hoc services/applications addressing students' challenges.

There is considerable research that investigates the factors impacting the adjustment process of university students. Many scholars refer to time and space, cultural distance, language barriers, length of stay, gender as key parameters to measure adjustment [5] [8] [9].
Further studies also reveal that factors such as host communication competence, host social communication, and intercultural transformation (as functional fitness and psychological health) are critical indicators of students´ cross-cultural adaptation [10][11].
Overall, students' challenges can have different nuances based on the academic, social, and psychological nature of their adjustment [12] [13]. The problems concerning the different levels of adjustments will be introduced as follows.

1.1 ACADEMIC ADJUSTMENT

When moving to a new academic environment, students have to deal with differences in the educational system of the state and/or country of arrival. This process can be particularly stressful and challenging. Students are exposed to new methods of teaching, new learning styles, different credit systems, different methods to register for exams, different evaluation methods [14]. Students are often not well informed about their curriculum and struggle to meet their own expectations [13].
In regards to language proficiency, Zhao [14] pointed out that "poor language proficiency impedes social interactions of foreign students with host students, professors, and other members of the academic community as well as the society at large, which may then lead to possible social and psychological problems and negatively contribute to academic achievement".
In addition to language barriers, it is relevant to note how cultural differences might play a crucial role. For example, Hofstede et al., [8] stated that "students in a collectivist culture will hesitate to speak up in larger groups" but this hesitation decreases in smaller group. In a collectivistic classroom, students tend to avoid confrontations and conflicts with isolated individuals. On the other hand, in an individualist classroom "confrontations and open discussion of conflicts are often considered salutary".
Difficulties in adapting to a new academic system, language barriers and cultural differences can lead to poor academic performances and students' drop-outs [15].

1.2 SOCIAL ADJUSTMENT

A social adjustment can be challenging especially for international students who haven´t yet established a network in the new country. The social integration of students in a new culture is often influenced by their socio-cultural, linguistic, and economic backgrounds. Students can experience social exclusion when they fail to fully integrate in the social, cultural, political, and economic life of the host country [16].

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Main predictors of students' social adjustment depend on their English proficiency, their length of stay, their gender, personality and their interactions with locals [17]. Language barriers, cultural differences and heavy study workloads limit time for socialising as well as low financial resources might limit the students ability to engage in social activities [16].
Universities can have a major role in reducing these difficulties by supporting the social interactions of students. On-campus socialization opportunities and the establishment of strong host networks are two most significant predictors of social adjustment. Participation in leisure activities (e.g., sports) and social events have a positive impact on students' process of acculturation [18].

International students perceive fewer barriers once they get more engaged in leisure activities and establish their own social network. Using Internet as a way to digitally engage and nurture social relationships can have a positive influence on social adjustments among international students [13].

1.3 PSYCHOLOGICAL ADJUSTMENT

Mental health status, biological and environmental factors can affect students' psychological adjustment [13]. For some students, the adjusting transition to a new environment can lead to depression, anxiety, stress, and loneliness.

Ayano [5] conducted different psychological tests with international Japanese students and revealed that students suffered homesickness and experienced psychological distress and a low level of well-being. Despite the psychological challenges and difficulties in establishing social networks, not even 20% of these students sought help from available support systems and professionals. Based on her findings, the most common strategies to cope with difficulties were listening to music, talking with Japanese friends or talking to someone in Japan. This study highlights the tendency of international students to rely on people with their same nationality [5]. In fact, students experience a better transition to a new culture when having secure attachments to their family or friends [13].

In addition to social support, Wang et al. [7] found that self-esteem, problem-solving skills and the use of coping skills - as acceptance, reframing, and striving - can improve the cross-cultural transition of students. Self-care, time management, and stress management have positive impacts on students adjustment. Being able to balance studies and work, making time for leisure activities and personal acculturation as well as for self-care (getting enough sleep, exercising, healthy diet, taking breaks) would make students' lives easier and more productive [13].

In conclusion, students' challenges depend on multiple factors of an academic, social, and psychological nature. It can be argued that these three dimensions are often overlapping and interconnected. In fact, students perceive that social adjustment has a positive impact on academic adjustment; psychological adjustment has a positive impact on academic adjustment; and social adjustment has a positive impact on psychological adjustment [19].
The acknowledgement of the complex, intertwined nature of students needs will be relevant when designing for richer social interactions.
To do so, a preliminary field research has been conducted in order to gain an understanding of the students needs.

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2: PRELIMINARY FIELD RESEARCH

2.1 METHODOLOGY FOR DATA COLLECTION

The following part will present the methodology applied to conduct a preliminary field research. The goal of the research was to collect data about users´ needs, behaviours, and motivations having the literature review above mentioned as a point of departure for the investigation.
The research was intended to benefit of a qualitative data collection through rapid ethnography [20] (conducting interviews, observations, focus groups, etc.) and a quantitative data collection through a survey.
Due to resource limitations, while the field research in the Danish context could benefit of numerous contextual interviews with students, for the other pre-pilots the field research was limited to a restricted number of participants and mostly through online interviews. As a strategy to cope with this limitation, a number of relevant "experts" - actors with deep knowledge about students' lives - have been interviewed, through convenient sampling. In the course of developing the data collection plan, researchers engaged with legal questions of data protection as prescribed by the GDPR regulation, applicable to all EU countries. This was particularly important for the finalization of the survey and the related quantitative data collection process, which will be started in spring of 2020.

The research was divided into two working sessions aimed at investigating the students´ needs in Denmark - where the pre-pilots' lead team is based - and then across pre-pilot country locations. For this first investigation it was decided among partners where the pre-pilots should take place, based on the feasibility of the experimentation. The field research done in Denmark has been used to set the methods and tools to be used in this phase of the research and to identify the possible actors/roles to be involved.

Danish Pre-Pilot - Aalborg University Copenhagen (AAU)

The data collection for the AAU pre-pilot was run in collaboration with 30 students from the Service Systems Design Master[1]. As part of their second semester project, the students were divided into 6 groups and given the following design brief based on the WeNet objectives:

How to design a smart multi-platform service that leverages students' diversity to address their everyday problems at university.

The different groups independently organized, under the coordination of the research team, their rapid ethnography activities [20] and collected data by means of triangulation, using different methods such as desk research, focus group interviews, and in-depth interviews to collect data. A summary of the methods used in field research in the different groups are summarized in table 1. These methods intended to provide a "reasonable understanding of users and their activities

[1] https://www.servicedesign.aau.dk/

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given significant time pressures and limited time in the field" [20]. In Table 1 provides an overview of the methods and tools used to synthesize the info gathered during field and desk research.

	Field Research Methods & Tools:	**Participants in Field Research:**	**Analysis & Define Methods & Tools:**
GROUP 1	Desk research Contextual Survey Interviews Focus group	Students AAU (n=54) Student counsellor (n=1)	Clustering Data visualization Quattro stagioni Personas How might We Method Dot voting
GROUP 2	Desk research Focus group Interviews	Students (n=21)	Empathy mapping Clustering Data visualization Personas How might We Method
GROUP 3	Desk research Online Surveys Interviews Focus group Shadowing Stakeholders Service map	Participants (n=52) PBL Professor (n=1) AI Experts (n=2)	Empathy Map Quattro Stagioni User Journey Personas
GROUP 4	Nine Dimension Benchmark Analysis The Time Machine Survey Interviews	Students (n=56)	Unpacking How might We Method COCD box
GROUP 5	Desk Research User Interviews Expert Interviews Intercept Interviews	Students (n=11) Info Desk Employee (n=1) Study Counsellor (n=1) Study secretary (n=1)	Research Download & Clustering How might We Method
GROUP 6	Desk research Interviews Friendship groups Survey	Study Counsellor(n=1) Students(n=54)	Question categories Jobs to be done Trust type How might We Method 5 Whys

Table 1: Data collection performed in the different students' groups.

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An example of data collection activity can be seen in Figure 2: a group of students asked their peers from other disciplines to anonymously answer some questions about their life at Aalborg University in Copenhagen.

Fig.2. Data collection at AAU. Credits to Nanna Dam Johansen, Mia Laybourn Steiness , Troy Leininger, Rike Neuhoff , Hadas Zohar

Worldwide Pre-Pilots

With the limitations mentioned at the beginning of this chapter, a corresponding approach to data collection was adopted in order to investigate users´ needs across pre-pilots. With the intent of eliminating time, budget and distance constraints, the research team collected qualitative data by means of online interviews with a total of 18 experts and lead users distributed across pre-pilots including study counsellors, university personnel, and students. Due to language barriers and limits in accessing Chinese students, the data collection in China was carried out by means of a digital survey.
To this scope, the team prepared two interview guides to run semi-structured interviews respectively with experts and students (Appendix 1, 2) and prepared a tailored questionnaire to be submitted to Chinese students (Appendix 3).

The purpose of the data collection was to compare different perceptions, attitudes, cultures, and lifestyles of university students in relation to their local contexts and map possible critical topics to be outlined through scenarios first and then addressed through the WeNet application. In the following paragraph the data collection will be further explained with the synthesis of the corresponding findings.

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Parallel Field research

During spring 2019, a qualitative field research was conducted in Trento (Italy) and carried out by university of Trento (UNITN). The team carried-out 97 in-depth interviews with local and international students currently studying in Trento. The research was a preparatory activity that helped the UNITN to better define the survey that will be distributed across pre-pilots in spring 2020.

The interviews were organized in two parts; the first addressing students´ preparation for university (their motivation to enroll, prior experiences, sources of information, and decision-making processes) as well as their initial period in Trento (their challenges and coping strategies).

The second part investigating specific topics related to *Body care, Food, Social Media* which are sub-sections included in the Survey, and will be shortly presented in Sect. 4. More details about it can be found under WP1 activities and in particular in *D1.2 Preliminary model of diversity*.

2.2 Field research

In total, data was collected from students (*n* = 250) and experts (*n* = 10) across the different pre-pilots sites in Italy, Denmark, Mongolia, China and Mexico. Students were recruited through emails targeted at the WeNet university partners that directly knew the context and could involve the right experts and students. At this stage students were selected based on their English proficiency and willingness to participate in the research without being compensated. As a matter of resources and logistics, the research team was able to involve a higher number of participants from the Copenhagen campus at Aalborg University.

The total of participants were distributed as follows:

EU Pre-Pilots

- Denmark - 150 students, 1 Counsellor at AAU Copenhagen, 1 PBL professor, 1 AI expert, 1 Study secretary, 1 Info Desk employee;
- Italy - 97 students, 2 members of the International Office, 1 representant of the Erasmus Social Network in Trento

Non-EU Pre-Pilots

- Mongolia - 5 international students, 1 member of the International Office
- Mexico - 3 local students, 1 international student, 1 professor
- China - 4 local students

Data analysis

The data collected was subsequently organised and prepared for analysis. Each pilot was analysed separately.
The students at Aalborg University(AAU) worked independently within their group to derive useful insights and recurring patterns from the interviews, the focus groups and the other activities carried out. As summarized previously in Table 1 each group used different methods to organize

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the data through activities such as empathy maps, clustering, data visualization and they synthesized their findings with tools like Personas and User Journeys. As an example of data analysis, one group looked at the most frequent words used by participants in the interviews. The keyword analysis [21] was then visualised in word cloud as the example in fig. 3.

Fig.3. WordCounter visualization of the answers.Credits to Nanna Dam Johansen, Mia Laybourn Steiness , Troy Leininger, Rike Neuhoff , Hadas Zohar

The online interviews - conducted with the rest of participants worldwide - were transcribed and clustered on the basis of recurrent themes and similar topics. Cluster analysis is a method used to group data into “meaningful classes” [22] in order to discover affinities and patterns and thus, establish a direction for the design process. Fig. 4 shows an example of clustering activity carried out by a group of students at Aalborg university.

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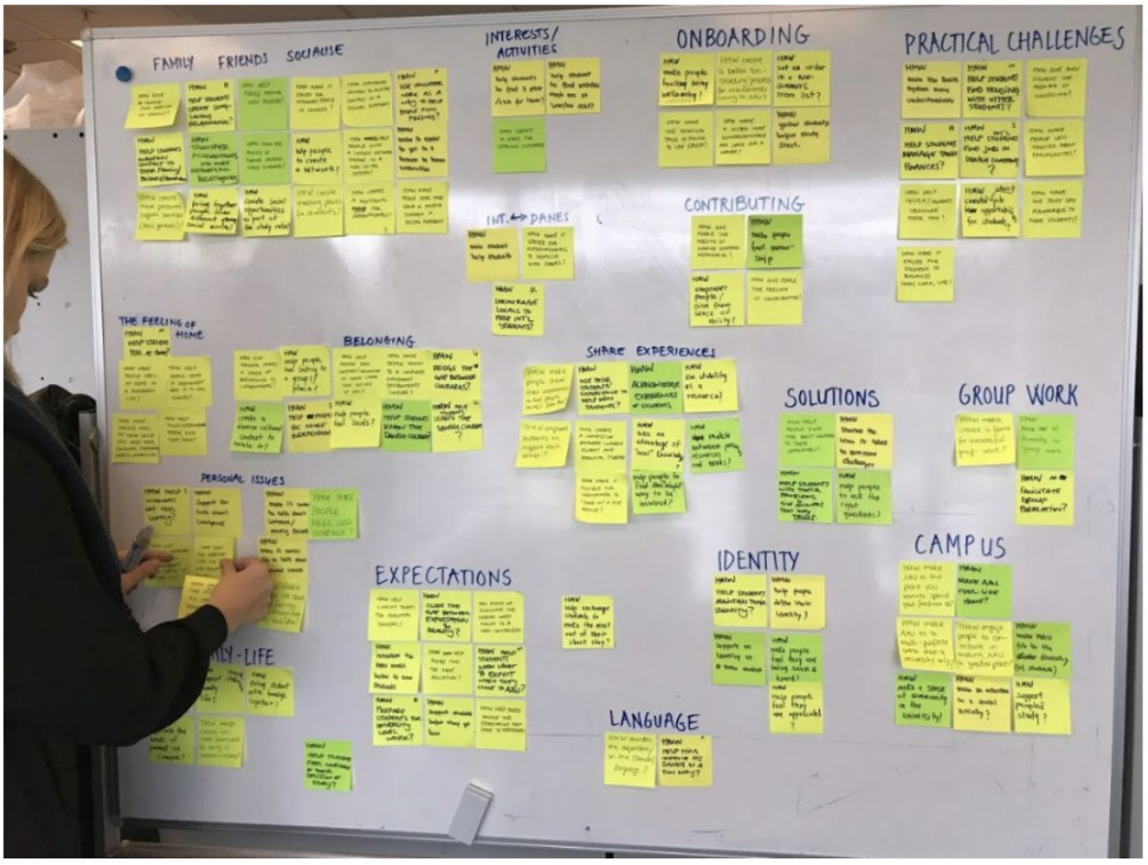

Fig.4. Clustering insights. Credits to Nanna Dam Johansen, Mia Laybourn Steiness , Troy Leininger, Rike Neuhoff , Hadas Zohar

In the following, the analysis of the data collected and the main findings of the research will be presented.

2.3 Preliminary Findings

Students' needs and behavior

The results of the preliminary field study validated what was previously mentioned in the literature review about students adjustment challenges.

As emerged from the analysis of the data collection across pre-pilots, the academic challenges are recurrent and widely experienced among students in Western and Eastern cultures.
In general, students tend to drop-outs in their first year of studies due to the lack of skills and competencies.
Social adjustment is not considered to be a problem if students are locals or are able to establish their own social network at their arrival. In some cases, poor English skills can limit the interactions between internationals and locals as well as limit the access to academic research materials. Psychological challenges mostly depend on students´ ability to cope with social and academic challenges.

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Some problems - such as housing, transportation - are highly dependent on the local contexts and the facilities available. From the interviews, it emerged the need to develop and support better communication between universities and students.

Most of the students use social media as unofficial platforms to find information, exchange research material, communicate with professors and classmates.
Students seeking help would try to contact their networks offline - in person, by phone - or through instant messaging apps.
The reasons why students help each other are several: to feel empowered, to give back to their community, to improve a language, to meet new students, to gain experience as tutors/buddies.
Having set the common ground across pre-pilots, in the following subsections specific pre-pilot-related findings will be presented.

Mexico
In anticipation of the Mexican pre-pilot, the team started gathering qualitative insights regarding the food habits and lifestyles of Mexican students, since obesity and bad eating habits are a recurring problem in Mexico.

Another major problem in Mexico is related to security. Due to a series of circumstances, security is becoming a big issue in particular for young girls and women. In certain areas, students do not feel safe using public transportation, attending leisure activities or being alone. When moving around, students tend to check on each other or stay in groups.

Furthermore students have problems managing their expectations and reaching their goals while studying. Many students do not have the right preparation - in terms of skills, competencies, knowledge - to start university, they are not satisfied with the programme chosen and get anxious throughout their studies.

China
The data collection for the Chinese pre-pilot had a different nature than for others. The administration of an online survey posed limitations on gaining more in-depth insights about students' experiences and on having further elaborations on their thoughts.

All participants in the survey stated that Chinese students have unhealthy lifestyles. The major concern regards their food habits. Spicy, sweet or fried meals are the preferred ones and often, students may order takeaways or buy pre-made meals. In addition to this, students tend to have sedentary hobbies such as watching television or playing computer games, and they have irregular sleep-wake rhythms.

In regards to their academic career, students have difficulties in adjusting to the academic environment. Reflecting on their study experience so far, the students claimed that they had problems in making long-term plans or in carrying out research for publishing an academic paper. Some students have stressful thoughts and feel anxious when thinking about their future plans and careers.
In general, students prefer asking for help in specific situations and they feel more relaxed talking to their peers or families.

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Unlike other pre-pilots, Chinese students have their own preferred social platforms as for instance, messaging apps like WeChat[2] and QQ[3]. Compared to other realities, Chinese students are heavy users of online services for shopping, streaming, and gaming.

Denmark

As mentioned earlier, the data collection for the AAU pre-pilot was carried out in collaboration with Master students in Service Systems Design.

As emerged from the data analysis, the most common challenges faced by students throughout their studies are of a practical nature such as finding accommodation, working in groups and managing expectations, registering for exams, learning how to change classes or take leave, and so on. A specific challenge for new students at Aalborg University is the one related to group work: finding the right people to work with for the rest of the semester can be stressful.

International students might also have difficulties concerning the language. Due to language barriers, they might find it difficult to approach locals, get access to local information and navigate bureaucratic services.
In general, students find the adjustment to the new academic environment quite hard and become anxious about their careers.

Facing practical challenges can have negative impacts on students´ well-being. Some students experience stress, depression, and homesickness.
However, students often seem to overcome their challenges by connecting with other people, either fellow students, family or experts (e.g. the local student counsellor).
It is not surprising that students seek face-to-face support when needed. As stated by a Danish expert in regards to counselling support, students prefer to book meeting in person as they feel the need to be seen, be heard and be understood.

For this reason, most students stated that being able to establish new friendships and get to know local people is of great value when overcoming student challenges.

Italy

As in other cases, the main challenges of students in Trento concern the differences in the academic system as, for example, understanding the educational offerings in Trento, the available courses, rules and regulations, requisites for admission, and so on.
Students often contact the university offices to ask questions about the study programmes or to get generic information about the city and the students life in Trento.
July is the busiest period for the university offices, especially the international ones, as students need to provide all the needed documents for admission.

Despite students getting instructions via emails or they can find information on the university website, some still go through the process of validating the information via phone or physical meeting. In fact, one of the student counsellors reported that students would rather trust the information received or heard from a person.
In connection to this, the international offices had to shut down one of their previous services, a peer-to-peer blog, as the information exchanged was often wrong (not updated, per-case basis)

[2] https://www.wechat.com/en/
[3] https://im.qq.com/mobileqq/

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but still perceived trustworthy. For this reason, it is relevant to define the limitations of what a platform can help students with.

For what concerns the social environment, most students do not have major social issues. Despite the limited social offerings in the city, there is a cohesive student social network for both local and international students.
Especially Erasmus students join the network to connect with others, participate in leisure activities, and get peer support for daily practicalities.

The most critical period for student adjustment happens soon after their arrival. After an initial period of excitement (generally in September) where they feel stimulated by the new environment, students may experience negative emotions like frustration, anger, anxiety. This second phase can last a few months and depends on the students´ ability to cope with their emotions.
For this reason, better support for students' onboarding process can have a positive impact on their adjustment experiences.

Further challenges emerged from the analysis of the field research conducted in Trento. Main issues are related to the difficulties in finding accommodation, problems with the UNITN system, difficulties in balancing working and free time, as well as to the feeling of homesickness and experiencing language barriers, in particular for internationals.

Students adopt various strategies to overcome these challenges, for example by doing internet research to find accommodation, by getting in touch with friends, family and other students to seek advice or get connected, by joining local activities or extending their exams.

Mongolia
International students move to Mongolia mostly to study Mongolian language and culture studies. Most international students are from China, Japan, Korea, Laos or part of an European exchange programme.
During their enrollment process, students might experience distress and anxiety as they lack information to prepare themselves for their arrival in Mongolia. In order to overcome this challenge, all the respondents have contacted either a Mongolian in their home country, or a fellow citizen residing in Mongolia or the study counsellor from the exchanging university.

During their period in Mongolia, international students experience cultural shocks and have difficulties in connecting with locals. In their opinion, most Mongolian students have different study paces, are less structured and lack planning and organizing skills. For this reason, internationals might get frustrated when planning activities or meeting with local students.

In general, students use social media such as WeChat or Facebook to seek information.
The university staff uses Facebook as a communication channel while, in place of Moodle, each department and professor uses their preferred channel to communicate with their current students (for example Piazza.com[4] or Google Class)[5].

Another recurrent issue for international students concerns language barriers. Often, the information about the academic enrollment, the study description, and study performances are available only in Mongolian. Even if an English website is available, it is not updated and badly designed.

[4] https://piazza.com/
[5] https://edu.google.com/products/classroom/?modal_active=none

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Since April 2019, the staff introduced mentoring services for new students. Students from the language department, in their 2-3 year of study, will help new students in their daily life. Mentors are volunteering in order to practice a foreign language: at the moment it is not fully developed as a service, it is only a concept stage and the university is investigating how to encourage students to become volunteers.

2.4 Limitations

As mentioned at the beginning of this chapter the performed user research had to cope with some limitations:

- the quantitative data collection through an online survey that had to be distributed across pre-pilots could not take place within the expected timing because of issues related to the GDPR regulation;
- the qualitative data collected across pre-pilots was done via convenience sampling and in most of the pre-pilots with a limited access to resources. As a result triangulation was not really possible. The researchers tried anyway to overcome this challenges by contacting local experts that could have an overview of students life because of their professional position at the local university;
- language has been also a barrier to reach a more diverse population in this phase of the project: in some countries, like Mongolia, Mexico and China, the English proficiency is not particularly good, and the local experts from the consortium - especially in non-EU countries did not have the resources to lead the activities.

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3: Scenarios in the design process

In this chapter the role of scenarios in the different phases of the design process will be specified concluding with the methodology that has been actually used to develop them in the WeNet project. In order to explain this specific tool, a possible way to model the design process will be introduced.

3.1 The design process

Several models are available to describe the design process [23][24]. One of the commonly used models is the The Double Diamond design process model, developed by the British Design Council in 2005 [25]. This model is graphically based on a simple diagram describing the divergent and convergent stages of the design process, which give the model the form of a double diamond (Figure 5). The model is also called 4D model because the name of each phase starts with a 'D': Discover, Define, Develop and Deliver. The Discover phase entails field research to understand the context in which the user operates. The problem to be tackled is clearly identified in the Define phase and subsequently operationalized in the Develop phase, which explores potential solutions. During the final Deliver phase, specific solutions are implemented and delivered. As can be seen in Figure 5, the different phases are alternately diverging and converging. The same design methods can be used in different phases with different purposes. For example, the method of scenarios (described in paragraph 2.2) can be used to represent the current situation in the Discover phase, to represent a concept in the Define phase, to ideate possible solutions in the Develop phase, as well as to communicate the final design in the Deliver phase.
In the WeNet project scenarios will be used with two different aims:

- as a narrative tool that will help the consortium to be aligned in the different phases of the project and across pre-pilots and pilots afterwards;
- as an effective tool to operationalize the findings of the field research and to define a focus for the investigation in the different pilots.

We expect that through the duration of the project scenarios will evolve through an iterative process, where different needs and expectations will emerge from field research in the pilots but also from the various activities performed in the different WPs of the project.

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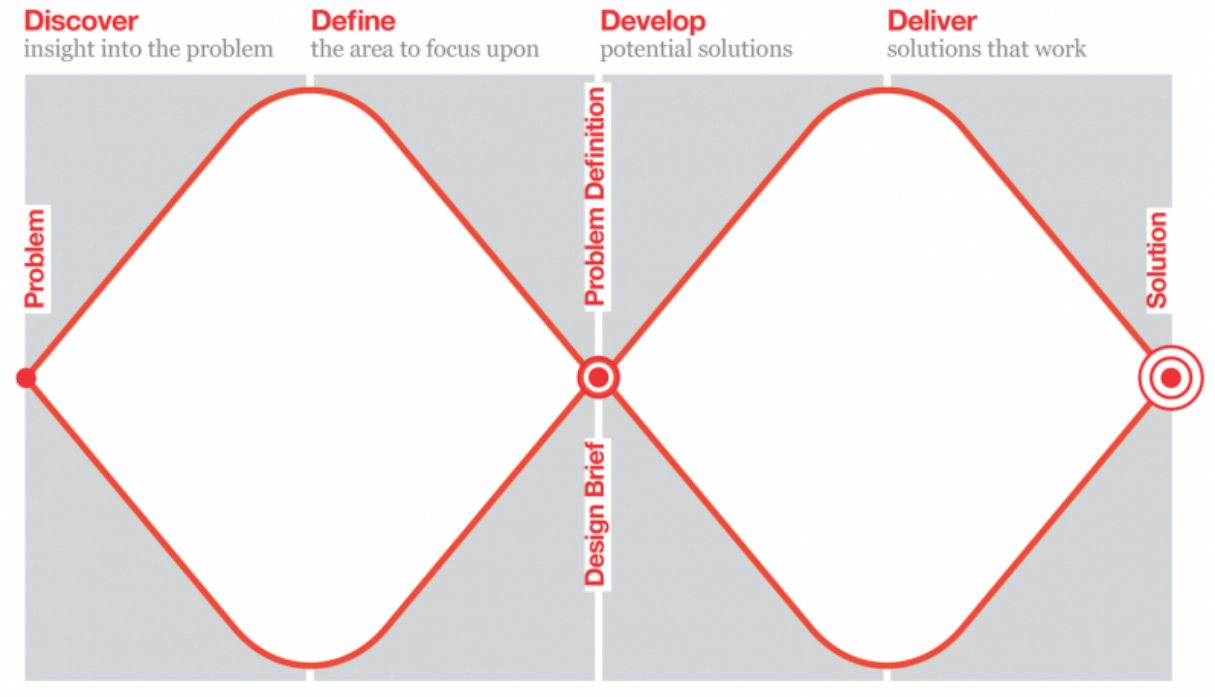

Fig.5 The Design Process: What is the Double Diamond? Design Council UK, (2019).

3.2 Intro to scenarios

Scenarios have been used in different disciplines, including Human Computer Interaction, Interaction Design, User Experience Design and Service Design. There is not a single shared definition of what scenarios are, how they should be structured and in what phase of the design process they should be used, but the general common understanding is that scenarios propose a vision of "something complex and articulated" [26], they are based on data gathered through field research [27] and they can help developers to "manage the fluidity of design situations" [28].

Scenarios are a representation of the key actions a user will perform while experiencing a product-service system. Taking the user into account, scenarios can help address questions such as: What does he or she use the product/service for? Where and when? What are the expected results? What is the innovation of this product-service?
They can be used to communicate the actual implementation of the product-service system under analysis or to envision possible future solutions. A written text, storyboards, sketches, videos are all possible ways of representing scenarios, which can also be enacted through role-playing techniques (Figure 5).

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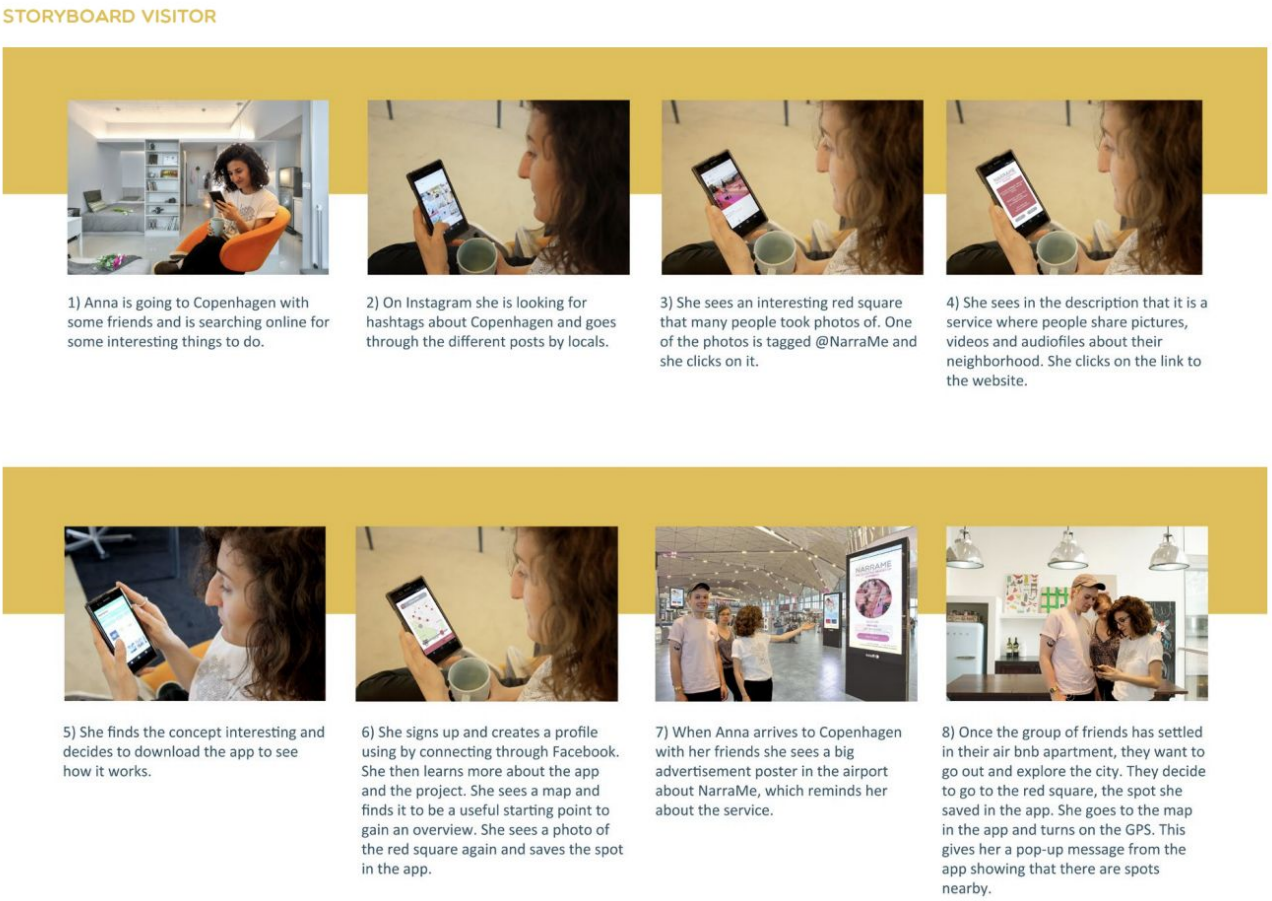

Fig.6. Service storyboard for scenario building. A project from the Service Systems Design Master, credits to: Drude Emilie Holm Ehn, Giulia D'Ettole, Maria Paszkowska, Nikolaj Baida, Tania Cearreta-Innocenti.

Scenarios help us direct design efforts towards the users' requirements and needs and, particularly in the case of "desired future scenarios", towards futuristic solutions that the users are able to freely envision. Scenarios allow for taking into consideration specificities of different stakeholders affected by the design process (e.g., citizens, practitioners), different assumptions (agreements/disagreements) and different domains. Scenarios can be characterised according to their desirability (by analysing the potential different views that different stakeholders might have on the same scenarios) and feasibility (by testing scenario goals against the new emerging reality). Scenario building is a valuable tool in co-design and co-creation activities [29][30], which helps us to gain a shared understanding of the specific need, challenge or obstacle. Scenarios can also be used as a "negotiation tool" in co-design sessions, because it gives a clear picture of possible future developments of a given strategies or design action.

Content and elements

The core element of a scenario is a narrative that explains in a diachronic way the actions of a user. Personas (fictional characters representing user needs, experiences, behaviors and goals) are then the other key element of scenarios, since they are the main characters of the narrative, the driving element of the story.

Personas were popularized by Cooper [31] and are research-based fictional archetypes of

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actual users meant to guide the design team during periods in the design process when actual user testing is impractical. The main benefits of using personas during ICT development are discussed in several publications [31], [32], [33] and can be summarized as follows: a) Personas focus attention on a specific target audience b) personas make assumptions regarding the target audience more explicit c) personas are helpful when communicating results d) Personas help prioritize audiences and product requirements e) Personas prevent self-referential design. The latter is due to one essential aspect of personas, which is that they utilize the human ability to empathy or identify oneself with another person and thereby infer or create predictions of how that person would behave in our particular developed scenarios. This feature of personas averts the tendency of developers to project their own goals onto a design [33]. An example of personas used in the WeNet project can be seen in part. 4.2.

In the scenarios the narrative should clearly explain the issues, needs and challenges that the personas is facing and how she is going to address it through the use of the envisioned solution. The story should be simple and effective, should be easily communicated so that the reader can immediately see the value of the proposed solution and its implications.
There could be different stages of scenarios: "main" (key path, which is the main scenario), "contextual" (how to respond to the client's needs) and "validation" (if the system/product/service responds to the proposed needs).

3.3 Building the WeNet scenarios

The first wave of experiments that will test the first version of the WeNet application will take place in fall 2020 developing from a common scenario that will be differently specified according to the pilots.
The scenarios will take into consideration the different pilots in which the proposed solution will be used: although the target group is the same - university students - the contexts are quite different and the students might have specific needs, challenges, aspirations and habits as well as specific resources that can help them in solving their everyday problems, as already highlighted through field research.

As mentioned in chapter 2, a further iteration on field research will be carried out in spring 2020, when a survey will be distributed in the different pre-pilots followed by a quantitative data collection through the i-Log app. The survey and i-Log data collection are among the “pre-pilot” activities, as they are part of the preparatory experiments that will be conducted in Spring 2020. These activities and their impact on the WeNet scenario building will be explained in the following chapter.

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4 WeNet Scenario development

4.1 The Preparatory Pilots activities

The so-called pre-pilot activities, presented in the internal deliverable D7.2 and here summarized in Figure 7, will be mainly carried out in spring 2020 with the aim of better understanding the context of use of WeNet and defining the problem that the platform wishes to tackle. In other words, to complement the field research conducted so far while addressing the first diamond of the design process introduced in chapter 3.
The consortium designed these activities in order to define several components that will convey into the first version of the WeNet application (available at month 18 and tested in fall 2020) including the users' requirements, the social model of diversity, and the technical infrastructure.

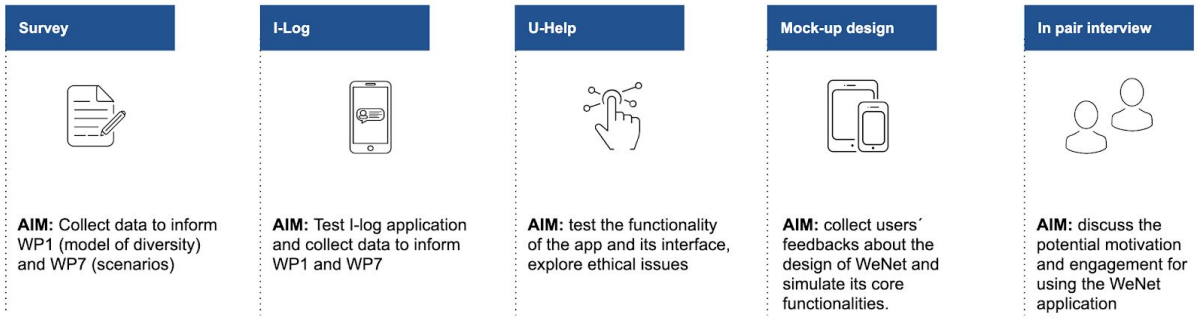

Fig.7. Preparatory Pilots activities

Both the survey and the i-Log data collection have been designed in order to inform WP1 and WP7 and thus, inform the scenario development, beside the model of diversity.
The survey and the i-Log data collection are complementary activities designed in sequence and for the same target group, the university students.
In order to simplify the administration of the data collection, the activities will be conducted first among EU pre-pilots (between M14-M16) and then among non-EU pre-pilots (between M15-M18), with the exception for the Mexican pre-pilot where activities already started in fall 2019.

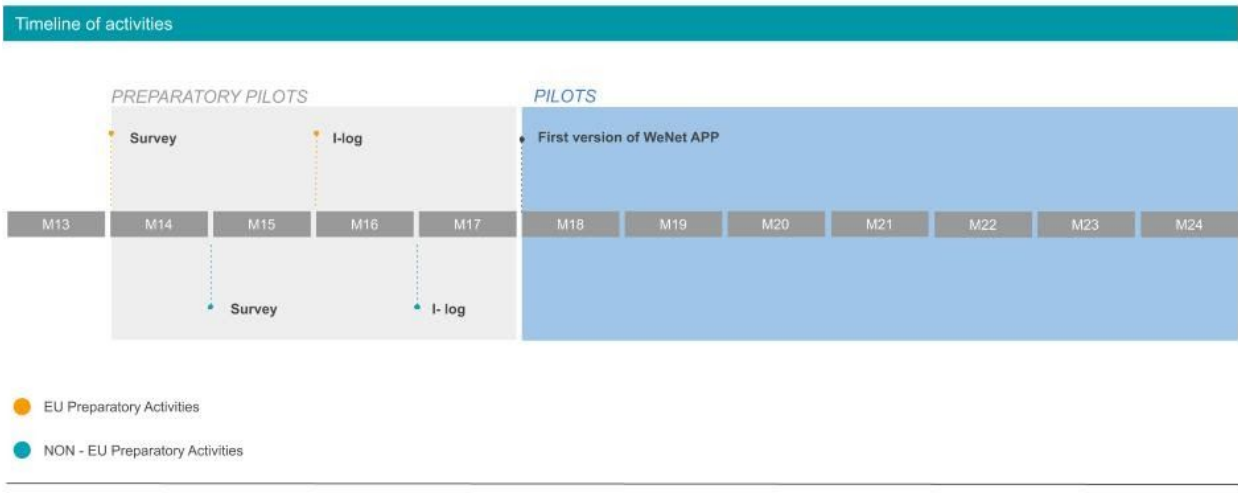

Fig.8. Timeline of activities

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The Mexican pre-pilot has been the first to run the preparatory activity and for this reason, the consortium agreed to develop a Mexican scenario to be used as a case study among research partners.

4.2 Mexican case study

From the analysis of the initial field research conducted in Mexico, it emerged that obesity is one of the most critical issues among students. In general, students seem to be not well informed about the negative implications of having unhealthy diets and have mostly sedentary habits. They choose food that is fast to prepare, cheap to buy, and gives a sense of satiety. Furthermore, students struggle balancing their work and study life and tend to adopt unhealthy eating habits.

Based on the above, it was decided to explore how WeNet could play a role in the context and how it could support students in adopting healthier habits.
To support the design process, personas were created and functioned as an effective technique to share users insights among partners. (fig.9, 10)

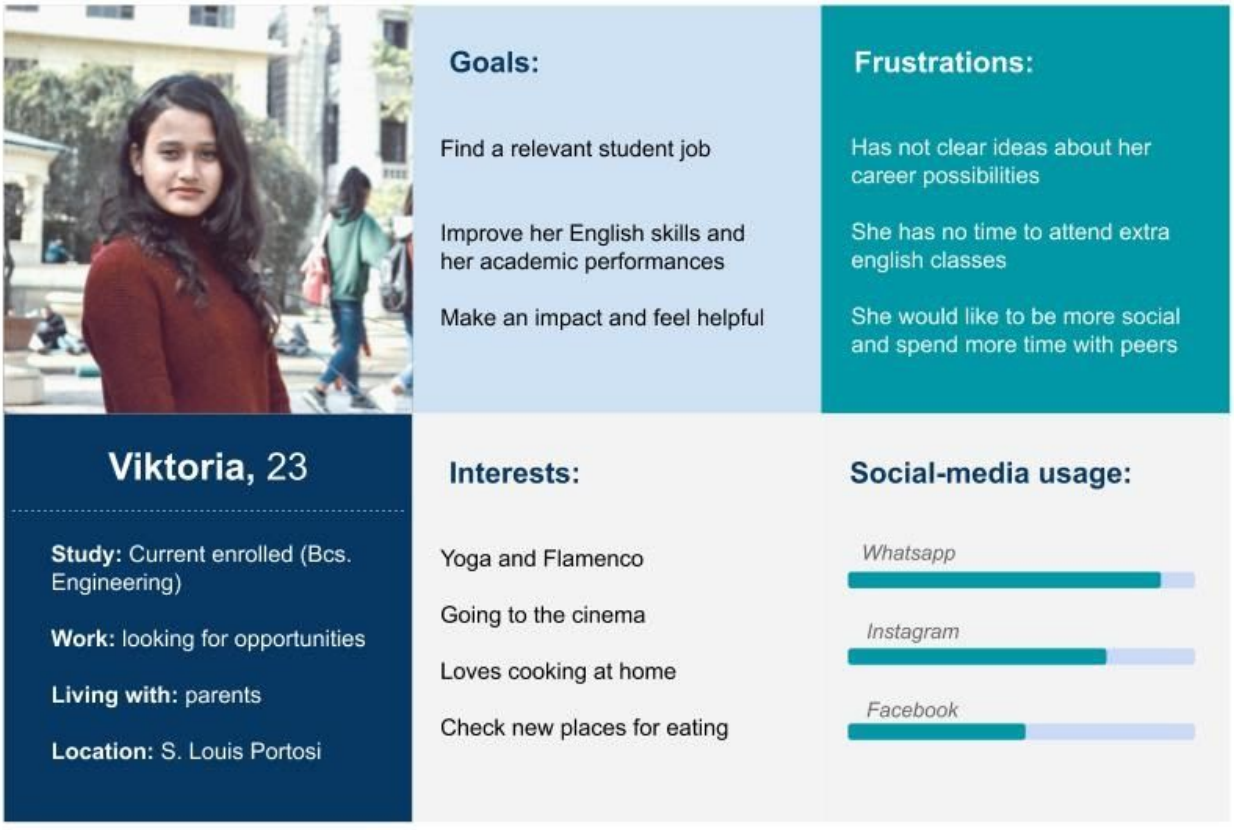

Fig. 9 Visual representation of Personas for the Mexican Pre-Pilot

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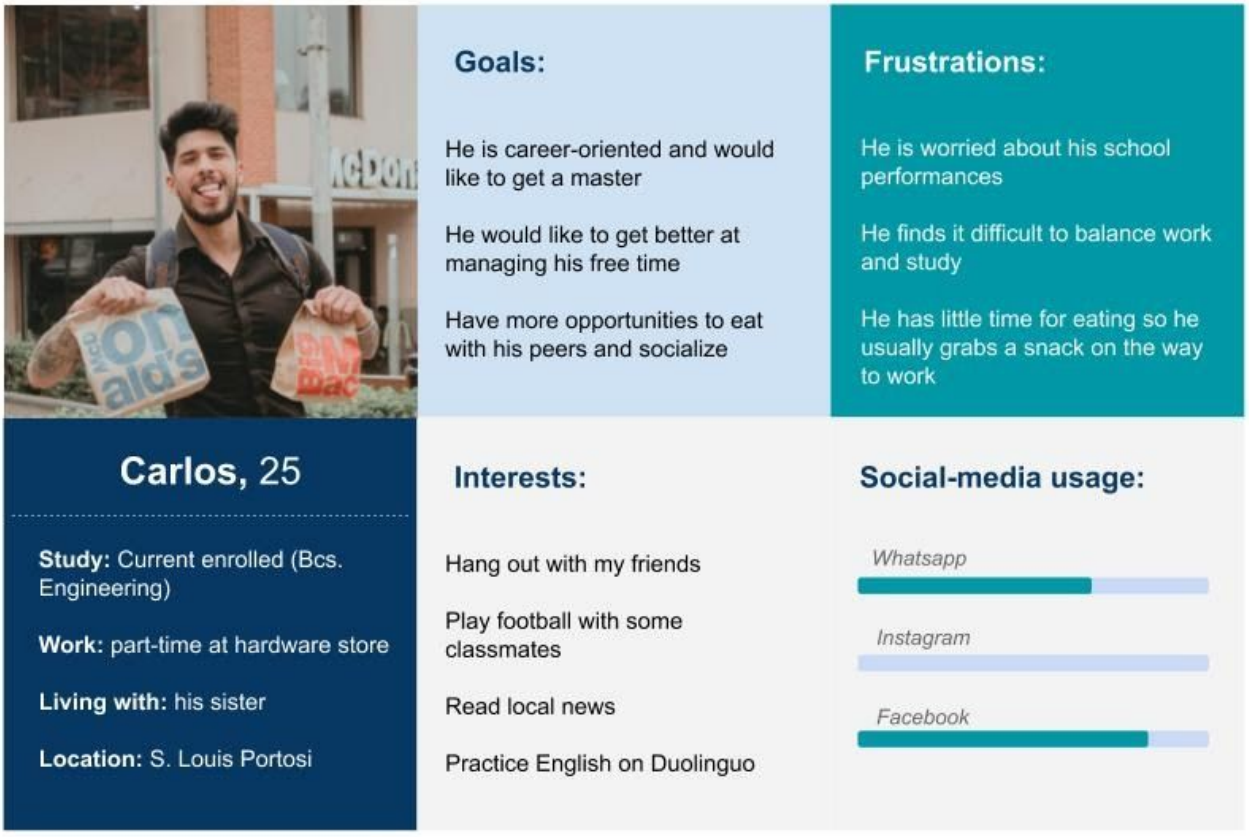

Fig. 10 Visual representation of Personas for the Mexican Pre-Pilot

While personas define a character through its goals, personal information, skills etc., the scenarios define the relationship between the character and the system. In the following paragraph, the narrative describing the potential use of WeNet in Mexico will be presented.

Scenario - social eating

Carlos is studying Engineering at IPICYT in San Luis Potosí (Mexico). Being a student is quite exciting but he finds it difficult to combine study and work schedules. During the day, he has to follow different courses and move to different campus areas while still making time to meet his peers, grab some food, and study. Often, he has to skip his breaks, grab a meal on his way, and avoid social activities to arrive at work in-time.
Carlos is a highly motivated student but he is afraid that his tight routines will impact his academic performances and compromise his social life.
Carlos wishes to have more time to enjoy his meals, check new places or have breaks with his peers.

While talking with a friend, Carlos hears about a new social app, where people can arrange or attend social eating events happening in a short time.
Carlos decides to download the app and check it out. After creating his profile, Carlos explores the various features of the app. He discovers that on the platform it is possible to host social meals or be a guest at someone's place.

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As he has little time to meet with friends, he realises that the app could help him facilitating encounter moments with his peers.
So, Carlos decides to host a social dinner at his place on the next Tuesday, when he usually has the day off.
When pressing “Host a dinner” he is asked if he would like to cook for others or if he wants other to bring food. He chooses option 2 and is redirected to the “Host a meal” page. Here he is asked to select the number of participants, specify a location, choosing time and date, choosing the level of friendship to forward the request and to input menu requirements for the guests (what should your guests bring? appetiser, main, dessert..)

After filling the list, he creates the request. WeNet forwards the request to participants.
In the next couple of days, he receives two notifications from people in his study course who wish to join the dinner. He can now chat with people attending the event in order to discuss details.
After the event is overdue, he is asked to evaluate his experience.
Carlos is happy about the new service as he was able to find the right people at the right time in just a few clicks!

Developing the Mexico scenarios through User Journey and Service Blueprint

To unfold the presented scenario, and hence generate a set of initial requirements for designing the WeNet service app, a user journey was created (fig.11). A user journey is a design technique describing the development of the service as a sequence of actions and interactions and providing “a high-level overview of the factors influencing the user experience” from a user perspective. [34]

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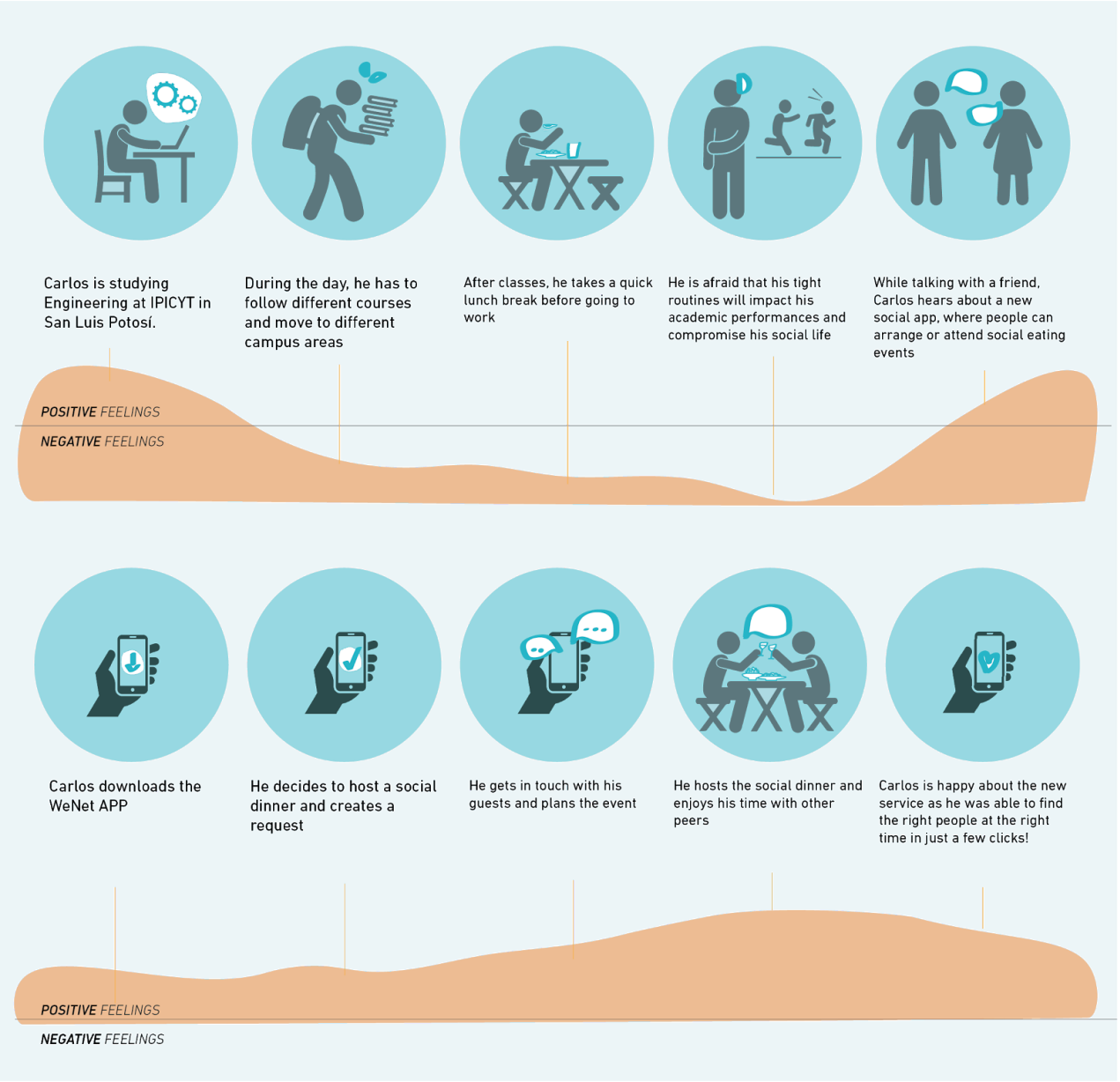

Fig. 11 User Journey for the Mexican Scenario

It visualises the user experience, the steps and the point of interactions between the user and the service, from the first contact with the service provider to the moment in which such interaction can be considered as completed. These points of interaction are called touch-points and represent “how the customer experiences the offering” [35].
The user journey was used to discuss the contribution of other partners to support the design, how their works would inform the back-end of the service. Through a participatory process, the team was able to design a first draft of the Service Blueprint by mapping the user journey for the Mexican Personas (Fig.10).

While the User Journey describes only the frontstage process of the service, in other words those aspects of the service that are visible to the user, a Blueprint map represents also the backstage processes such as the internal employee actions and all the support activities “that need to happen in order for the service to be delivered” [36]

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A service blueprint work effectively to have an overarching view of the service and its components. This tool allows to mentally zoom in and out and helps generating new ideas and discuss current elements of the service offering [37].

The following blueprint (fig.12) was used to gain a holistic understanding of the WeNet platform. This mapping technique allowed the team to discuss core elements to be in place in order to support the interactions among possible users of the service.

Fig. 12 Initial Service Blueprint iteration for WeNet development (online copy: https://docs.google.com/spreadsheets/d/1QJCxlGeNmUfjMCyi9VldYtHafFy1eg5EDdMNXo3MKPA/edit?usp=sharing)

It is relevant to say that, as agreed at the beginning of the project, the team wishes to implement components of the existing platforms U-help and I-Log in the development of WeNet.
Technical components of U-help e.g. creating a request, search for volunteers, and complete tasks will be adapted in order to support diversity-aware interactions among WeNet users. On the other hand, i-Log will allow to infer users´context and personalise the service by collecting users´ mobile sensor data.

Based on the initial scenario presented, the team was able to discuss these aspects together with other consortium partners and thus, analyse the social, ethical, and technical implications for developing the platform.

Initial elaboration of requirements for Scenario Use Cases

In the following, a first elaboration of requirements for the development of the WeNet App will be introduced. The envisioned core aspects and elements for the design will be presented based on specific scenario use cases.

- CREATE A WENET ACCOUNT / ONBOARDING PROCESS

To access the platform, the users will have to create a WeNet account.
After a feasibility assessment about the implementation of I-log, it was decided that the users have to install WeNet app and the i-Log app on their mobile devices (fig. 13).

It is important to stress that, if new users experience difficulties in accessing the platform, understanding the interface and the service elements, the platform will be likely to be uninstalled

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or deleted [38]. For this reason, the blueprint poses a particular emphasis on the onboarding process.
A well-designed onboarding process will allow users "to discover application functionality in a timely manner and identify how this functionality might allow them to achieve their personal goals" [39].

At this phase of the design, the team envisions the onboarding process as crucial step to provide guidelines on how to engage with the platform, present the service values and create engagement. Furthermore, the onboarding phase could engage new users in creating their *WeNet User Profile* and inform the algorithms which support diversity-aware interactions.

ACTIONS	CREATE A WENET ACCOUNT			ONBOARDING PROCESS			
PHYSICAL EVIDENCE							
CARLOS	Downloading WeNet mobile app	Giving permission to install I-log to use the service	Signing up with his info (email, name,..) and accepting terms and conditions	Creating an account and landing on the welcome page	Filling in info about his diversity profile	Completing action	Receiving incentive message about app functions
GUEST							
FRONT STAGE INTER.	Showing WeNet icon	Showing request to install I-log	Showing link to the verification email	Showing welcome page	Showing diversity dimensions	Showing task as completed	Showing pop-up incentive message
BACK STAGE INTERAC.	WeNet App account operations and maintenance	I-log installment	Sending confirmation emaill	Creating new account	WeNet processing profile data	Processing data	Processing data
SUPPORT SYSTEM	Storing app data	Storing app data	Storing user data	User authentication and data storage in cloud	Crunching data for ML	Crunching data for ML	Crunching data for ML

Fig. 13 Use case for creating a WeNet account and onboard new users

- TASK REQUEST : Looking for a group of people/volunteers.

The task request (fig.14) is conceived as a core feature of the platform which will allow users to find other people and organise social activities as for the Mexican case study (hosting a social eating experiences).

To fulfill their goals, users might specify their food preferences, a location, a timeframe, an *estimate* of the number of people needed in a group, along with deciding whom to ask (i.e.

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specifying friendship and trust levels), and possibly specify a set of desired profiles (for instance primarily focusing on cooking competences, such as who is good at cooking, knowledge of regional food,etc).

- TASK DISSEMINATION AND RESPONSE

The development of diversity-aware algorithms will permit to disseminate the user request and find available individuals or groups to fulfill the task (Fig.14).

After receiving responses, the users might be able to select individuals or a group based on personal preferences. To avoid matters of discrimination and exclusion, the WeNet app might ensure that everyone is in a group, and all groups are committed to the action. This aspect will be further discussed within the design development.

ACTIONS	TASK REQUEST				DISSEMINATION	RESPONSE	
PHYSICAL EVIDENCE							
CARLOS	Selecting function: **"Host a dinner"**	Marking "food" as required	Creating menu list	Adding event details and preferences: location/ time/ diversity preferences / friendship level /	Getting confirmation for creating an event	Receiving notification	Receiving list of matching profiles/ groups
GUEST						Accepting request	
FRONT STAGE INTER.	Opening "host a dinner" tab	Showing options for planning dinner	Showing menu suggestions	Showing requested fields and filters	Showing confirmation	Showing notification	Showing profiles
BACK STAGE INTERAC.	Linking to function page	Processing data	Processing data	Processing data	Processing request and searching for matching profiles	Processing matching profiles	Processing matching profiles
SUPPORT SYSTEM	Crunching data for ML	Crunching data for ML	Crunching data for ML	Crunching data for ML	Crunching data for ML	Crunching data for ML	Crunching data for ML

Fig. 14 Use case for creating and disseminating a task request

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- TASK AGREEMENT AND EXECUTION

In the current scenario, the team envisions the users as responsible for discussing and making arrangements to execute the task.
Accordingly, a discussion/planning feature (chat, instant messaging) will be a relevant component of the platform. This will open the door for volunteers to discuss amongst themselves who will do what, and hence help construct the plan themselves (fig.15).

- TASK EVALUATION AND INCENTIVES

To encourage and monitor users´participations and trustworthy behaviors on the platform, a set of rating mechanisms will be put in place.

The rating system will be built on users´ usage of the platform and through peer rating. The users´ may rate their experiences and evaluate people who have been interacting with (fig.15).

Volunteers may also rate each other and the requester if needed. However, in the specific scenario, both the requester and volunteers will only rate people in their group (or possibly assess the grouping mechanism).

Furthermore, the team wish to maintain users´engagement by providing a set of virtual rewards and incentives (e.g. badges) that will act as a trustworthy symbol within the WeNet community.

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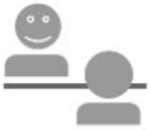
ACTIONS	TASK AGREEMENT		EXECUTION	EVALUATION	INCENTIVE
PHYSICAL EVIDENCE					
CARLOS	Selecting guest(s) / suggested group	Starting conversation with guest (s)	Hosting a dinner	Rating experience	Receiving badge
GUEST	Receiving confirmation	Receiving message	Attending event	Rating experience	Receiving badge
FRONT STAGE INTER.	Showing selection	Showing chat function		Showing rating system	Showing badges
BACK STAGE INTERAC.	Processing matched profiles	Linking to chat function	I-log Data collection	Saving data in the cloud	Saving data in the cloud
SUPPORT SYSTEM	Crunching data for ML	Crunching data for ML	Crunching data for ML	Crunching data for ML	Crunching data for ML

Fig. 15 Use case for executing and evaluating the service experience

4.2 Towards a WeNet Scenarios Corpus

As stated in the WeNet project proposal, through the WeNet application different students will be connected to address each other needs by (1) searching for the right human (or group of humans) for a given task, and (2) supporting people's interactions to get them to agree on helping each other, such as providing incentives to act in a given way. Based on the field research presented in chapter 2 and on the work done on the Mexican pre-pilot to align across WPs, a corpus of initial scenarios have been identified in order to take into account the different pre-pilots' contexts.

The two themes that have been confirmed across pre-pilots as excellent case studies to address diversity and pervasive to student life are:

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- supporting healthy habits for all students (studying, eating, physical activity, sleep and stress) and
- supporting vulnerable non-local students in their adaptation to the new university context.

These two themes will be addressed in the first wave of experiments (the pilots that will run in fall 2020) through two main typologies of scenarios.

The first typology of scenarios will be derived by adapting the Mexican scenario in different contexts. The main characteristic of the scenario presented chapter 4 is that the student-user is looking for a **group of volunteers** to cook and eat together, but a similar group of volunteer could be built also for study related activities or for leisure related activities. Furthermore the diversity dimension in all these cases is very relevant both in grouping people and in attracting people (incentives).

A specific subset of scenarios can then be created to fulfill the needs of the different pilots, while keeping a common element (the group of volunteers):

- group of volunteers to eat together: Mexico and China
- group of volunteers to study/work together: Denmark, Mongolia
- group of volunteers to play together: Mongolia, Italy

Another subset can be developed while considering a simplified version of the previous set of scenarios: looking for a volunteer instead of a group. This would still entail that the participant will have to take part of some specific activity, but through a simplified one to one interaction.

The second typology of scenarios instead focuses on **getting answers**: it is a one to one exchange that do not necessarily implies an offline interaction between the participants. While the diversity dimension here might be relevant depending on the question asked, this scenario would definitely allow to facilitate the students' adaptation to their new study life by connecting them with more experienced peers that could help them solve specific challenges (which is relevant theme across all pilots). This typology of scenario will allow the app to be used in the everyday life of the students and not only when specific events will happen (a dinner, a football match, an exam etc.) supporting a continuous usage of the app.

A third typology of scenarios has been envisioned to be implemented in a later stage of the project to integrate the WeNet application among the different services that the various universities are providing to the students. Field research showed that the Universities could have particular interest in promoting specific activities related to the studies, students' well being or in general to the livability at the University. This kind of scenario would improve the adoption of the WeNet application in the local contexts.

4.3 Conclusions and next steps

This deliverable presents the field research that has been carried out across the different pre-pilots during the first year of the project to identify the critical issues that will be addressed by the WeNet application. Due to the limitations that have been explained in chapter 2, the field research still misses the data that should have been gathered across pre-pilots through two of the planned preparatory-pilots activities, namely the survey and the i-Log experiment. This data

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will be collected in spring 2020 allowing further specification of the scenarios together with the development of the specific use cases, as done for the Mexican pre-pilot. A more specific list of requirements will be then created for every pre-pilot through the collaboration with the different WPs on the development of the Service Blueprint presented in par. 4.1.

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APPENDIX 1: STRUCTURE FOR SEMI-STRUCTURED INTERVIEWS WITH EXPERTS

What is your background and when did you start working at university?

What types of support do you offer to students?

WHEN & WHERE
How often do students contact your office? Do they contact you by phone, mail or in person?

Considering a regular enrollment at uni, 2-3 years, what are the most critical periods for students? *(When do they seek more frequently for help)*

CURRENT CHALLENGES
What are the main reasons why students are asking for help?

What are the most common issues related to students´ social life?

What are the most common issues related to the academic system?

What are the major psychological challenges faced by students?

Do students manage to have a well balance between school and private life? Why so?

Do you consider local students to have a healthy daily life?

What kind of hobbies do students have?

In your opinion, what are the main differences between online and offline support?

How would you evaluate your online offering (website)?

Do you know about any student App? Would you recommend it to students, why?

What can a tailored support-platform offer to students that social media/google cannot?

What are the other channels/platforms used by students to address their problems?

Do you have any sort of documentation you can share with us, reports, statistics, etc?

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APPENDIX 2: STRUCTURE FOR SEMI-STRUCTURED INTERVIEWS WITH STUDENTS

GENERAL

In your opinion, do students have a well balanced school/private life? Why so?

What are the most common problems/challenges students have during their studies?

What kind of hobbies/activities do students have in common?

Do you consider local students to be healthy and active?

PERSONALITY

What motivates you to go to university?

What type of activities do you do when not at university?

How satisfied are you with your daily schedules? Is there something you are not able to do at the moment? Why?

TRANSPORTATION / ROUTINES

How much time do you spend at university?

How much time does it take to go to uni/go back home?

What type of transport do you mainly use?

Do you do other activities while going from/to university? (read, music, study, etc)

How satisfied are you with your travelling routine?

Is there something you would change in your travelling routine?

ABOUT FOOD

Do you have healthy eating habits? If not, why?
(lack of time, money, diet, low appetite, not expertice)

Can you describe your daily eating routine? When, where, with who do you eat? Why?

Do you do other activities while eating? (read, music, study, etc)

How satisfied/happy are you with your eating habits?

Is there something you would improve or do differently?

BODY CARE

How much time do you spend for physical exercising? What motivates / de-motivates you?

How much time do you dedicate for body care (getting ready, beauty routines)?

How satisfied/happy are you with your body care habits?

Is there something you would improve or do differently? Why?

SOCIAL MEDIA

What type of social networks do you mainly use?

When are you most likely to use your social media throughout the day? Is there a particular reason?

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Why do you use these platforms?

What do you get out from using these channels / What do you use them for?

How do you feel when using SoMe? (Adjectives/ emotions)

Is there something you would change about your SoMe usage?

What type of platform do you use to fulfill your student tasks?

HELP AND NETWORK

If you have a task or a problem, would you ask someone for help?

Who would you mainly ask for help and why?

Do you ever ask other students for help? Who do you usually contact (older students, tutors, classmates, etc) and why?

What can other students help you for and what they cannot?

Would you ask strangers to help you with tasks? If not, why?

Do you often help others? Why? How do you feel about helping people?

How often do you use SoMe to give/ask for help?

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APPENDIX 3: STRUCTURE FOR ONLINE SURVEY WITH CHINESE STUDENTS

Interview survey: Students needs and practices in China

level of education:
gender:

GENERAL

1. In your opinion, do students have a well-balanced school/private life? Why so?

   _____
   _____
   _____

2. What kind of hobbies/activities are popular among local students? *(e.x. going out, cross-fits, hosting social dinners, reading clubs, karaoke, etc)*

   _____
   _____
   _____

3. Do you consider local students to be healthy and active? (Please highlight your answer)

   - ❏ not at all
   - ❏ a little bit
   - ❏ quite a bit
   - ❏ very much

4. What are the most common problems/challenges students have during their studies?

   (Ex. stress, lack of money, unhealthy lifestyles, cultural shock, transportation, etc)

   _____
   _____
   _____

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5. What are the common stress factors for young students? How do they cope with stress?

_____

_____

_____

6. What were the major challenges you faced when starting your bachelor/master? Looking back at your initial year, what type of advice would you give to a younger student?

_____

_____

_____

PERSONALITY

7. What type of activities do you do when not at university? (*study, going out, use social media, family, etc)*

_____

_____

_____

8. How satisfied are you with your daily schedule? (Please highlight your answer)
    - ❑ very dissatisfied
    - ❑ moderately dissatisfied
    - ❑ neither satisfied or dissatisfied
    - ❑ moderately satisfied
    - ❑ very satisfied

9. Is there something you are not able to do at the moment? (ex. meet friends, take dancing classes) Why?

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_____

_____

_____

TRANSPORTATION / ROUTINES

10. What type of transport do you mainly use? *(bike, walk, walk and bus, metro, etc)*

_____

_____

11. What other activities do you do while going to university? *(study, listen to music, use social media, read news, attending the seminars, etc)*

_____

_____

_____

12. How satisfied are you with your travelling routine? (Please highlight your answer)

- ❑ very dissatisfied
- ❑ moderately dissatisfied
- ❑ neither satisfied or dissatisfied
- ❑ moderately satisfied
- ❑ very satisfied

13. What would you change in your travelling routine?

_____

_____

_____

ABOUT FOOD

14. Do you have healthy eating habits? (Please highlight your answer)

- ❑ yes
- ❑ not

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If not, why? *(lack of time, money, diet, low appetite, not expertise)*

_____

_____

15. What type of activities do you do while eating? (read, music, study, talk with friends, etc)

_____

_____

16. How satisfied/happy are you with your eating habits? (Please highlight your answer)

- ❑ very dissatisfied
- ❑ moderately dissatisfied
- ❑ neither satisfied or dissatisfied
- ❑ moderately satisfied
- ❑ very satisfied

17. Is there something you would improve or do differently?

_____

_____

SOCIAL MEDIA

18. What type of social networks do you mainly use? (you can highlight more than one)

- ❑ snapchat
- ❑ wechat
- ❑ instagram
- ❑ telegram
- ❑ QQ
- ❑ Weibo
- ❑ LinkedIn
- ❑ Others:

19. When are you most likely to use your social media throughout the day? (during meals, while taking the bus, while home, etc)

_____

_____

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Is there a particular reason?

_____

_____

20. Why do you use these platforms? *(ex. connecting with friends, follow people and organizations, for entertainment, etc)*

_____

_____

_____

_____

21. How do you feel when using Social Media? (Please highlight your answers)

- ❑ Excited
- ❑ Curious
- ❑ Bored
- ❑ Lazy
- ❑ _____
- ❑ _____
- ❑ _____

22. What other app do you use frequently (ex. for training, shopping as Taobao/Jingdong, cooking)?

What type of platform do you use for your student tasks?

_____

_____

23. How often do you contact someone or publish a post online to ask for info, help? (Please highlight your answer)

- ❑ Never
- ❑ Rarely
- ❑ Sometimes
- ❑ Often
- ❑ Always
- ❑ Not apply because: _____

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HELP AND NETWORK

24. If you have a task or a problem, would you ask someone for help? (Please highlight your answer)

- ❑ Never
- ❑ Rarely
- ❑ Sometimes
- ❑ Often
- ❑ Always
- ❑ Not apply because:

_____

25. Who would you mainly ask for help and why? (friends, family, professionals, etc)

_____

_____

26. Do you ever ask other students for help? (Please highlight your answer)

- ❑ Never
- ❑ Rarely
- ❑ Sometimes
- ❑ Often
- ❑ Always

Who do you usually contact (older students, tutors, classmates, etc) and why?

_____

_____

27. Would you ask strangers to help you with tasks? (yes, no, to some extend)

_____

If not, why?

_____

_____

28. Do you often help others? (Please highlight your answer)

- ❑ Never

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- ❏ Rarely
- ❏ Sometimes
- ❏ Often
- ❏ Always

29. How do you feel about helping people?

_____

_____

30. How often do you use Social Media to give/ask for help? (Please highlight your answer)

- ❏ Never
- ❏ Rarely
- ❏ Sometimes
- ❏ Often
- ❏ Always

31. Do you usually give consent to share your data online? If not, why?

_____

_____

Thank you for filling in the survey!

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