DELIVERABLE REPORT
D1.5
"Interim Strategy on Ethic Issues"

collaborative project

MASELTOV
Mobile Assistance for Social Inclusion and Empowerment of Immigrants with Persuasive Learning
Technologies and Social Network Services

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partner		organisation	ctry
01		JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH	AT
02		CURE – CENTER FOR USABILITY RESEARCH AND ENGINEERING	AT
03		RESEARCH AND EDUCATION LABORATORY IN INFORMATION TECHNOLOGIES	EL
04		FUNDACIO PER A LA UNIVERSITAT OBERTA DE CATALUNYA	ES
05		THE OPEN UNIVERSITY	UK
06		COVENTRY UNIVERSITY	UK
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09		TELECOM ITALIA S.p.A	IT
10		FLUIDTIME DATA SERVICES GMBH	AT
11		BUSUU ONLINE S.L	ES
12		FUNDACION DESARROLLO SOSTENIDO	ES
13		VEREIN DANAIDA	AT
14		THE MIGRANTS' RESOURCE CENTRE	UK

CONTENT

1. EXECUTIVE SUMMARY

This deliverable aims at following the state of the art of ethical issues in the MASELTOV project. It summarizes the main ethical issues discussed by the members of the consortium until the 18th month of implementation of the project. These discussions were motivated and guided by the "Ethics Manual" (D1.4), a reference document originally conceived for the project to set basic ethical standards that all partners agreed with and committed to follow. The interim strategy on ethic issues is based on D1.4 and works as a continuous process of self-reflection and interdisciplinary dialogue between technical and social partners in an ongoing process that raises multiple questions and recommendations accordingly. D1.5 constitutes a collaborative document that includes inputs from all the partners on topics related to their area of expertise. It also takes into account immigrant' concerns on privacy and anonymity of information, according to the results collected among participants of the different stages of the user-centred methodology (interviews, focus groups and participatory design sessions).

2. INTRODUCTION

Ethics are a very substantial part in any research project, even more if it involves the participation of a highly vulnerable social group such as immigrants, as is the case in the MASELTOV project. This requires the application of the highest ethics standards to its evaluation and to the implementation of possible extensions and modifications to the original version of the Ethical Manual. This revision process is intrinsically dynamic, since it needs to adapt to those ethical issues that emerge as the project progresses. DEL 1.4 was designed as a basic document of reference on the main ethical issues to be taken into account by all the partners of the consortium, including practical guidelines to be applied in their respective tasks. One year afterwards, D1.5 presents an examination of the status in each work package, collects partners' reflections on the process and highlights the main challenges ahead.

This deliverable is organised in three parts. Firstly, it offers a review of the main ethical issues that emerged during this period. Secondly, it presents a detailed follow-up of risk assessment identified in the Ethics Manual, covering only the most relevant topics in the discussions held until now (i.e. referring to management issues, research standards, user involvement and data protection issues). Finally, the Annex section provides some additional materials that serve to illustrate the information presented in the main document, originally produced in the context of the project. The editors of the deliverable (Adela Ros and Cecilia Gordano – UOC) have received and compiled information and documents submitted by key partners for ethical matters (TI, JR and CURE) and reviewed them with the project coordinator Lucas Paletta (JR). The elaboration of this deliverable has constituted a good opportunity to rethink and further elaborate some crucial issues about ethics in a collective way.

3. MAIN ETHICAL ISSUES IN THE PERIOD 1.1.2012-30.4.2013

3.1 ETHICAL CONSIDERATIONS RAISED BY THE USER-CENTRED DESIGN RESEARCH

- **Brief description of methods and measurements**

User-Centred Design is a methodology to guide designers and developers through the software development process with the goal to make applications that meet the needs of their users. The idea is to involve users from the start of a project by researching their needs by presenting them concepts and designs frequently instead of just at the end. Thus, the information architecture, interaction concept and graphical layout are based on the feedback of users. Within MASELTOV, the user involvement was started with the requirements analysis by conducting semi-structured interviews and focus groups. We have identified barriers and problems of immigrants in order to profoundly understand their specific service needs (see D2.3.1). The next step was to design the services and discuss them with immigrants. To benefit from their ideas we conducted two participatory design workshops (see D2.4). The goal of these workshops was to identify potential differences in design and solution approaches and to discuss them with end users. The concrete user interfaces are designed in an iterative manner (see T2.5) based on the outcomes of the participatory design workshops and the identified user needs. This means various elementary user interface concepts were elaborated and the resulting mock-ups were presented first to usability experts and then to the users in form of usability tests (D9.2.1, D9.2.2). Therefore, the design of the user interface is directly linked with the iterative usability testing that takes place in Task 9.2, in which the interface concepts will be evaluated frequently from an early stage onwards to ensure user validation. Once the design of the user interfaces has been finalized, the functionality will be developed by the technical partners. In the field trials at the end of the project, the running MASELTOV services will be evaluated by immigrants of the target group in real life situations (see T9.3, T9.4).

- **How many people involved?**

Depending on the research questions, a specific amount of users needs to be involved to generate meaningful results. We specified these numbers in the DOW and stick to them as far as possible. In total, we involved 71 immigrants until the end of month 18 (see details in D2.3.1, D2.4, and D9.2.2).The recruitment was conducted by the NGOs through their own networks. All participants received a financial allowance (between 25 and 40€) for participating in the studies.

- **Process followed**

For each study, CURE created a detailed study protocol where all tasks and questions for the participants were noted. The responsible facilitator from CURE or the NGOs followed the described procedure. All study protocols and guidelines have been reviewed for ethical issues by the ICMPD. A sample of usability guidelines is provided in the Annex 1.

- **Key researchers involved, responsible and contacts**

Interviews, focus groups and participatory design workshops were conducted by co-workers of the NGOs or CURE, with experience in applied projects with immigrant people. While the interviews were conducted in the mother tongue of the immigrants, focus groups and participatory design workshops were assisted with translators of Arab (Madrid), Turkish (Vienna) and Spanish (London). NGOs represent a highly trusted site for immigrants, which assure an ethical use of data. In some of the focus groups, representatives of academic institutions of the consortium assisted and collaborated. OU was present in one of the focus group held in London and UOC took part in a focus group in Madrid by partner FUN and could guarantee the quality of the research site and basic procedures. In Vienna, partner Danaida organized two focus groups that were led by researchers of CURE.

Since the participatory design workshops and usability testing require design knowledge, they were directly conducted by researchers of CURE. Usability testing and participatory design workshops were ran in London and Graz.

- **Procedures used by researchers to inform participants and contact information given to the participants.**

Before each study, we orally informed each participant about the project, the current study, the meaning of their participation, privacy and confidentiality issues and a contact person. They signed an informed consent document containing all presented information in a written format afterwards. Participation was completely voluntary. All participants had the chance to leave an ongoing study at all moments. In each informed consent, document benefits and harms of the current study were described. At no moment, any of the participants were in risk of harm. All guidelines and protocols for user studies included best practices that assure that the study follows ethical standards in research.

- **Advertising material used in recruiting participants**

NGOs have recruited participants among their own users. In some cases, some specific materials have been produced to make the call for participants. (See Annex 2)

3.2 IMMIGRANTS' CONCERNS ON SAFETY AND PRIVACY

One of the main concerns detected in the different research settings (interviews, focus groups, and iterative sessions) was on privacy issues, which have been already acknowledged in other documents elaborated by the consortium, as shown in the following excerpts:

"The discussion [of the participatory design sessions held with Turkish and Arabic immigrants in 2012] also turned out that privacy issues are playing a big role in the life of immigrants. They require having absolute control about who they are in contact with through the platform and who can see where they are located and what they are doing right now. They indicated that this is because they do not know who they can trust in the new country and they are afraid to be expelled somehow" (D2.4 p15)

"One participant [of the Arab focus group held in London in 2012] said that some new migrants won't be aware of privacy settings, or they might be too trusting from some cultures and might share information that they do not realise puts them at risk. Another said she had a bad experience with Facebook and deleted her account altogether" (D2.3.1).

Participants in the focus groups mentioned privacy concerns as part of the main disadvantages they found in the MASELTOV idea. As shown in D2.3.1, Turkish participants in Vienna disliked "that everybody is able to see personal information about them. They mentioned that some information should be restricted" (D2.3.1, p.38) while Latin American participants in London mentioned two specific problems: "fear of the confidentiality of information needed to register for the application" and "public authorities could use the application to locate someone" (D2.3.1, p.41).

As D2.3.1 concluded, "Very important are safety and privacy concerns, especially regarding the Geo-Social Radar and the social network especially in relation to potential illegal status of the migrants. The possibility to share different information regarding different services should be given. Some new immigrants will not be aware of privacy settings and may share information that puts them at risk. Therefore sufficient information about privacy issues must be provided." (p.46)

3.3 ETHICAL CONSIDERATIONS ON EXPLOITATION ISSUES

One of the consortium's main concerns has focused on how to build a sustainable business model for the mobile application including all stakeholders such as companies, NGOs, local and national governments. This involves looking for a balance between profit driven activities that can sustain the project beyond its finalization while, at the same time, ensuring users' widespread access to it and the protection of their data. In this ongoing discussion to be defined throughout 2013, access, content update and privacy emerge as main issues transversed by ethical implications.

- **Access:** the consortium is engaged with the social inclusion of immigrants and is aware that many of them might face precarious socio-economic and legal situations. In various opportunities, partners have discussed how to offer high level technology in low-end ICT solutions that have the least possible impact on users' budgets. While access to the devices escapes MASELTOV orbit and will depend

on the general trends of the market[1], future access to the app itself, the requirements of mobile internet connection and updated content were widely discussed among partners. The consortium is planning to pursue an affordability study which will address issues of access to mobile phone technology among immigrant groups to plan future actions.

- **Content update**: It refers to the mechanisms that will ensure that accurate information will be available through the Mapp. Once the prototype is ready to be launched, the exploitation strategy needs to include the costs and benefits of relying on a group of individual and institutional experts to continuously update changes in the various services of the Mapp, from changes in the regulations to changes in transportation services.

- **Privacy**: The privacy of users' data is another important ethical issue continuously taken under consideration by the MASELTOV consortium. Since the first discussions at the beginning of the project, those partners that were more directly involved with immigrants' daily lives (NGOs) or that have had research experiences in immigrant contexts (UOC researchers) have provided information and practical examples on the particularly delicate situation of immigrants' private information and the imporance of preserving their anonymity and privacy. This progressive work of raising awareness among all partners has been successfully reflected by crucial partners in various documents, as exemplified in the following sub-section

3.4   DATA MINING

The MASELTOV app will store big data sets on users that must be protected in order to ensure users' privacy and anonymity. A good example of users' data collection is the recommendation service, which advises users to take action on different issues related to their behaviors and interests (e.g. complete a particular language lesson in a related setting). Its efficiency and accuracy will depend on the personal information stored in the users' profile. In order to protect this data, "the information that is collected by the server is not tied to a particular user, which guarantees anonymity. In particular, user name and associated user ids are not recorded when statistical data are collected" (D5.2, p.6). These issues will be covered in a privacy policy framework to be implemented by the Mapp, as part of Task 5.3 and 10.3. This issue has interested some technological partners of MASELTOV especially, as some written research show (See paper by I. Dunwell from Coventry University focusing on ethical research with a game-based intervention in Annex 3).

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[1] Various reports conclude that smartphone penetration is on the increase globally (McQueen & Saadi, 2012; Zimmermann et al., 2012). Market trends are considered in more detail in the Exploitation plan of WP10.

4. MAIN ETHICAL ISSUES AND RISK ASSESSMENT IN MASELTOV

4.1   MANAGEMENT ISSUES (WP1)

Organization		Follow-up comments to assess main ethical risks during 2012-13
A. Are the **roles and responsibilities** of all partners transparent and sufficiently clearly defined?	**a.1.** If necessary, add more detailed descriptions including methodology, scope of deliverables and involved partners to the description of the tasks in the work plan.	Each partner has worked in accordance with the roles and responsibilities attributed to them with respect to the ethics issues, complementing and collaborating with each other. UOC has the lead in the management of the Ethical Management (Task 1.2). CURE (user research) and OU (science aspects) as well as JR (affordability and management issues) are assisting in this management too. ICMPD has been subcontracted to aid in the definition of the ethics requirements and monitoring. The NGOs provide consulting to the operative group. Further outline of the responsibilities, as it would be needed for the remaining of the project after M18 will be managed by the Task leader UOC, if necessary.
B. Are there **communication strategies** in place that allow for timely and transparent communication within the consortium?	**b.1.** Keep regular contact with the partners in order to identify and solve problems/conflicts as they appear.	In MASELTOV in general, there are several communication strategies in operation. Monthly Skype meetings assure regular updates of main administrative but also content related issues. There are discussion groups (Google group), Skype, e-mail and Twitter channels to express any communication issue. Here, we address in particular the requirements of the monitoring of ethical issues. As the Task leader, UOC is in charge of answering to any ethical concern raised by partners. Regular communication in this respect has not been seen to be relevant so far,

		since the major requirements had been communicated among the consortium and the monitoring procedure is asking all the WP leaders conducting studies with end users to first address the ethical advisor.
	b.2. Ensure that all partners are equally involved in project meetings and can voice their concerns/needs.	All MASELTOV partners are invited to join the project meetings. Monthly Skype meetings are also open to every participant; however, due to bandwidth problems in Skype, every organization has to decide upon a maximum number of participants and for this to prepare internally for the project meetings in order to guarantee that all their issues will be brought into communication.
C. Does the project timeline and work plan allow for a **logical implementation** of all project activities?	**c.1**. Identify possible risks of delays and thematic overlaps between the WPs.	In general, the work plan has been designed to allow for a logical implementation and has been approved by the European Commission for that matter. Some delays in the project progress could have an impact on the quality of addressing ethical issues if there would be a pressure to develop components in less time than planned. However, we are not aware of any delays that would negatively affect the ethical issues so far, and MASELTOV would never perform studies without complying with all necessary ethical requirements. Another kind of delay would be related to any lack of user studies in contrast to the extent planned, so that technical implementation could not consider appropriate user studies. So far, the progress in the user studies is advanced according to the work plan.

D. Is there a strategy foreseen how to **react on potential delays** in WP2/9?	**d.1**.Identify overlaps between WP2/9 and this WP and harmonize the timelines of the relevant activities and tasks.	The timelines between these tasks have been harmonized, the timetable has been presented and acknowledged by the consortium and the ethical advisor at plenary meetings.
	d.2. Establish regular communication structures with WP2/9 partners.	There is regular contact with the WP2/9 partners so far. A regular communication will be established (via bi-weekly Skype meetings) from within July 2013 in order to accompany the critical part where WP2 and WP9 tasks are highly interdependent.
Project Quality Plan		
A. Are **ethical considerations** taken into account in the **Project Quality Plan**?	**a.1.** Collect feedback from the partners about what content they would find useful.	From within August 2013, we will include ethical considerations into the Project Quality Plan. The ethical advisor, UOC; will collect the main issues and put them together to be included in a specific Section in the Project Handbook.
B. Are **all partners involved** in the elaboration of the **Quality Plan** (to make it a shared document)?	**b.1**. Provide the opportunity to provide comments on the draft Project Quality Plan.	All partners have access to the Quality Plan. It is a regularly updated document that is on the commonly accessible MASELTOV FTP server.
Ethical Management		
A. Does the project **time line and work plan allow taking into account ethical principles** into the development of relevant tasks?	**a.1.** Collect feedback by all partners about what content they would find useful.	In general, the collection of issues that are relevant to the partners has already been performed and results implemented into the Ethics Manual, D1.4
	a.2. Provide the opportunity to give comments on the draft Ethics Manual.	The opportunity has been provided along all the project and, in particular, in the preparation of this DEL. Printed handouts were given

		to the attendants of the meeting in Athens (September 2012) and there is an online version accessible via the MASELTOV FTP server.
B. Which strategies are applied in order to **ensure** that all **partners apply ethical principles** throughout the project (including subcontractors)?	**b.1.** In any meeting where decisions will be taken, a member of the MASELTOV coordination team will look after ethnical impacts. Overall, the Ethics Advisor (UOC) as part of the MASELTOV Project Management Board will take a decisive part of any important decision.	Important decisions are undertaken in plenary meetings and in meetings of the Management Board. In all these meetings, the Ethics Advisor (UOC) is present and can recommend the discussion of ethical issues whenever it understands that ethics would be related to the content of the communication and targeted decision.

4.2   3.2 RESEARCH STANDARDS (WP2, WP9)

Scientific standards		
A. How will **quality and transparency** be ensured in the **data collection** process?	**a.1.** Use scientifically acknowledged methods and specify the methodological approach used and make sure that scientific and ethical standards are met.	All empirical activities relied at scientifically acknowledged methods in both work packages and referenced the used methods in the according deliverables (D2.3, D2.4, D9.2.1, D9.2.2). In WP9, an extra document (D9.1.1 Evaluation Plan) describes the evaluation procedure and was accepted by the reviewers. All study guidelines have been reviewed for ethical issues by the ICMPD.
	a.2. Avoid falsification and misinterpretation of the data.	Experienced researchers were responsible for the analysis of the data collected during the interviews, the focus groups, the participatory design workshops and the usability

		testing.
B. How will the factual **accuracy and representativity** of the data be ensured in the data collection process and during analysis?	**b.1**. Reflect upon what can be said and what can't be said with a specific kind/extent of data.	Based on the current research questions and after reflecting the aimed outcome user research involved a specific number of users to gather meaningful answers to flow in qualitative analyses. In addition, more experienced immigrants were invited to provide more reflected answers via a retro perspective look at their problems and solutions
	b.2. Reexamine the selection of the target group on the basis of theoretical and scientific criteria.	Working with a vulnerable target group like newly arrived immigrants leads to higher loss rate of participants. Therefore, flexibility is indispensable but needs to take the specific situation of the current research question into account. Based on the target group definition, the NGOs recruited the best fitting participants for the studies that they could access.
C. How do the activities **take** already **existing knowledge into account**	**c.1.** By drawing on the wide-ranging expertise of the partners to bring relevant knowledge and literature to the project's attention.	The planning and conduction of all studies have been undertaken by experienced researchers. In addition, a literature review complemented the existing experiences with current methodological approaches.
	c.2. The project members will keep up to date through networking and attending relevant conferences and reexamine the adequacy of the methodology applied.	The user-centered design approach that we follow in MASELTOV will be presented at one of the leading peer-reviewed HCI conferences: INTERACT 2013. This is the highlight of ongoing exchange and networking with leading researchers in the field.
D. What is the empirical evidence basis for the	**d.1.** Reflect on the relevancy of the selection criteria chosen.	Immigrants are a highly heterogeneous group and can hardly

definition of the **project's target group**?		be treated as one sole target group in terms of service and user interface needs. Their needs differ widely since great variety of user characteristics occurs depending on maternal language, cultural background, education, motivation, duration of stay, religion, and profession. For this reason, it is necessary to focus on specific social groups. At the same time, we try to support with our service a big amount of immigrants, so we decided to target the three biggest groups of immigrants within the European Union. Finally, we need to balance between inclusion purposes and basic technology accessibility. Illiterate immigrants as well as very restrictive technological access groups, for instance, have been the object of our debates and, although we keep our inclusion purpose, difficulties make us to target more average social sectors.
	d.2. Avoid a culture bias! Re-examine the relevance of the indicator "cultural difference" as compared to other criteria.	The most important aspect of the MASELTOV services is that they work for our target group. By involving users of the target group, directly in the development process we ensure that they can use the services. To minimize cultural bias relevant criteria for controlling interpersonal differences (related to personality or cognitive skills) will be investigated in upcoming user research activities, by making use of valid and culture fair assessment instruments.
	d.3. Be aware of the risk to use and reproduce stereotypes or clichés in the planning, implementation and analysis of the research.	For this reason, we involve users directly with the help of a user-centered design process and ask them about living circumstances, problems and barriers, and wishes; we present mock-ups and early

		prototypes to them so they can give their opinions and suggest changes.
E. What is the empirical evidence basis for the **selection of the main areas** in which the **mobile device** shall provide **support**?	**e.1.** Reflect on the relevance of the selection criteria chosen.	The selection of the service that is under development within MASELTOV is based on empirical research conducted within WP2 as part of the user-entered design process (described in D9.1.1). Results are reported in D2.3.1
F. Do the designs of the **workshops** respect ethical standards?	**f.1.** Aim for a balanced composition of the workshop participants in terms of areas of knowledge and in terms of gender, migration experience and age.	Participants of the focus groups and participatory design workshops were recruited by the NGOs based on the target group definition of D2.3.1. The guidelines for these workshops have been reviewed on ethical issues by the ICMPD.
Involvement of research participants		
A. How will the **voluntary nature of participation** in the research by users be ensured?	**a.1.** Apply the principles of informed consent.	We informed each participant of any conducted study orally about the project, the current study, the meaning of their participation, privacy and confidentiality issues and a contact person before the study started. They voluntarily signed an informed consent document containing all information afterwards.
	a.2. Involve the participants in these discussions whenever possible.	All participants were encouraged to actively contribute to the topic all the time, and had the chance to leave the ongoing study at all moments.
	a.3. Make sure that all persons carrying out the research (e.g. interviewers, interpreters) are aware of the main ethical principles in research (e.g. offer training, provide checklists).	All guidelines for user studies included best practices that assure that the study follows ethical standards in research. All the researchers involved had worked successfully with vulnerable target groups before and have accordant experiences.
B. What are the (potential) **benefits and harms** for research participants?	**b.1.** Assess the benefits/ harms for research participants and inform them about possible benefits/harms.	In each informed consent, document benefits and harms of the current study were described. At no moment, any of the participants were in risk of harm.

C. How will the **findings from the research on users' needs** and characteristics be **reflected in the development and design** of the mobile device?	**c.1**. Reexamine the interview guidelines and analysis framework.	All guidelines of user studies have been reviewed internally and externally (by the ICMPD).
	c.2. The user research is the basis for the developments taking place in MASELTOV. This means that the service specifications are shaped according to these findings. Furthermore, the developed prototypes will be tested by users later on.	Service specifications are based on the requirements analysis where immigrants were involved several times (see D2.3.1, D2.4). Furthermore, service concepts were evaluated already at early project stages (see D9.2.1, D9.2.2).
D. Will the users be able to **define** their perspectives on **empowerment** and **social inclusion**?	**d.1.** Make sure that participants are given sufficient space they can express themselves with total freedom and openness.	Interviews had a semi-structural format to leave time for participants to express their thoughts and formulate wishes. Focus groups and participatory design workshops included open discussions anyway and the moderators encouraged all participants to contribute.
E. Is it possible to take corrective actions in the following WPs if the user requirement analysis reveals different needs than envisaged?	**e.1**. Establish regular communication structures with the technical partners in order to allow for timely corrective action.	The selection of the service that is under development within MASELTOV is based on empirical research that we conducted within WP2. D2.3.1 and frequent face-to-face and Skype meetings reported the results and control the development process that allows corrective actions to be implemented from the beginning.
Collecting data		
A. How will the factual **accuracy of data** be ensured?	**a.1.** Do not interpret the data in a partial form.	We analyzed the collected data thoroughly and did not leave out single data sets.
	a.2. Specify the methodology for this task by taking into account scientific and ethical principles.	All research tasks followed scientific and ethical principles based on previous research experience and literature review. In addition, the ICMPD reviewed all study guidelines for ethical issues.

	a.3. Reexamine the selection of the target group on the basis of theoretical and scientific criteria.	When working with immigrated users flexibility is indispensable but needs to take the specific situation of the current research question into account. Nevertheless, the NGOs recruited the best fitting participants for the studies that they could access. Depending on the research question we did not only invite members of the exact target group but also relied on more experienced immigrants as they sometimes can provide more helpful answers with the help of a retro perspective look at their problems and solutions.
	a.4. Data collected will be analyzed in order to discover relations among communities and define new services.	The goal of the MASELTOV user-centered design process and the accordant data gathering is to specify requirements and to define accordant services.
	a.5. The information analyzed in this work package should reflect as much as possible the same characteristics of the target group of MASELTOV. Results will be transferred to the other work packages to allow improvement and services offering.	Results are provided in D2.3.1 and discussed during frequent face-to-face and Skype meetings for controlling the development process that allows corrective actions to be implemented on time.

4.3 USER INVOLVEMENT (WP 3-8, WP 9)

User involvement and user needs		
A. Are the principles of **informed consent and voluntary participation** ensured?	**a.1.** Always respect the principles of informed consent and voluntary participation.	The informed consent has been used in every study; participants took part on a voluntary base.

B. Does the project timeline and work plan allow taking into account the **findings from research with users** at all levels of the project?	**b.1.** Take into account the wishes and needs of the target group when designing the mobile device.	We follow an iterative user-centered design process to have the chance to gather user feedback as early as possible. This process is described in D9.1.1.
C. How will the results of the **user requirement analysis** (WP2, WP9) be taken into account for **developing the mobile services**?	**c.1.** Based on the requirements analysis of the users the services will also be designed in WP2. To assure that these designs go along with the user needs we will conduct various test cycles to ask potential users for feedback (WP9). According to this feedback, the design will be improved. After the implementation, the services will be tested in the field.	Within WP2, substantial efforts have been done to gather user and system requirements, drawn from the interrogation of the target group. After the requirements analysis (D2.3.1), interaction concept (D2.4) and first designs (D2.5.1, D2.5.2) have been created and evaluated within WP9 (D9.2.1, D9.2.2). After the design have been finalized and approved by the target group, the service will be assessed in the field.
D. How will the partners responsible for the user requirements (partner 2 **NGOs** working with immigrants) be **involved in the specification** of the mobile services?	**d.1.** CURE is responsible for the interaction design for the mobile services and works intensively together with the coordinating technical partners JR und FLU.	User requirements have been identified in WP2 by strong contribution of the partner CURE. Within WP3 – System specification – it was made sure that each user requirement is covered by technical functionalities. This is documented in D3.1.1.
E. Are **users informed** about potential **harms/benefits** of their participation?	**e.1.** Clarify which benefits research participants have when participating	In each informed consent document benefits and harms of the current study were described. At no moment, any of the participants were in risk of harm.
F. Is there a remuneration foreseen for the users to compensate for the time and efforts needed to participate in the trials?	**f.1.** Make a plan for the remuneration of users. Inform the users in a transparent manner.	All participants received an allowance between 25 and 40€ to compensate the time they spent with the study.
Accessibility of the mobile phones		

A. Does the design of the mobile devices facilitate its **usage** to **persons not familiar with digital devices/ old persons/ illiterate persons**, etc.?	**a.1.** Make a risk plan regarding the usage of the mobile device.	The risk plan will be drawn with conclusions made from the affordability study that will be performed in 2013/2014.
	a.2. Take into account main socio-demographic and socioeconomic characteristics of the target group when designing the mobile device.	The user research coordinator (Jan Bobeth, CUR) is responsible to develop in work package WP2 the necessary requirements from the mentioned perspective and from that also the transfer into the system specifications, in communication with the technology oriented work package WP3. It is assumed that there will be a Section in the report on the affordability study, drawn by representatives of WP2 (CUR, UOC), that will particularly highlight these aspects and reflect on the feasibility of technical implementation of requirements in communication with the technical partners.
B. What **costs** are involved in order to use the mobile devices?	**b.1.** Make sure that the usage of the mobile device is low-threshold.	WP10 is considering developing a business plan in accordance with the affordability study. The results of this study will have an impact on the technical development and adaptation in the third project year, so that a low-threshold solution, if required, should be possible, at least with a specific set of MASELTOV components.

Some possible solutions already discussed among partners consisted in carriers offering discount on phones and/or traffic during the first months after the MASELTOV app (Mapp) is in the market. The use of advertising was also considered as a good strategy to decrease the impact of costs on users. Regarding content, there were proposals to differentiate between a free (minimum) content and a premium content, but basic content should be ensured in the free |

		option to everybody.
Accessibility of the Mobile Text Lens		
A. How to **ensure** a certain **quality of translations** (especially with regard to official texts)?	**a.1.** Draw up a list of quality criteria for the translation service.	The translation service is not part of the Text Lens development and external SW, probably Google Translate, will be used. In this sense we do not have control about the quality of the text, However MASELTOV is planning to foresee GUI aspects that would add quality in order to let the user understand that the text should be used in an associative rather than in a precise translation sense. The partner CTU is developing the interface and is in contact with CURE and FLU to address this issue. It is possible (but no resources have been planned in the project for this) to add a text retrieval system that would detect the text from the Lens as part of a standard document that has been pre-loaded on the system and a prepared translation would be returned.
B. How **can illiterate persons make use** of the service?	**b.1.** Make an easy to understand user manual on the usage of the text lens, its limitations and possible risks.	Most software for mobile phones comes without a user manual. The use must be intuitively obvious, with an intuitive interface. The text read, and possibly translated, can be read aloud by a text- to-voice system. Such systems are available on most computer platforms.
	b.2. Consider the option of incorporating an audio information option of the user manual.	This is an existing option.
Technical scenarios and system architecture		

A. How will the **results of WP2 be reflected** in the **design** of the system architecture?	**a.1.** Ensure that the development of products includes the results of research & user requirement analysis.	One major result of WP2 has been the identification of user requirements. Within WP3 – System specification – it was made sure that each of those user requirement is covered by technical functionalities, which is documented in D3.1.1. Furthermore WP2 evaluates several iterations of MASELTOV user interfaces with target groups and provides important feedback for the software development process of each partner within the corresponding work package.
System specifications		
A. How will the results of the **user requirement analysis** be reflected in the **design** of the system?	**a.1.** Ensure that the development of products includes the results of research & user requirement analysis.	User requirements have been identified in WP2. Within WP3 – System specification – it was made sure that each user requirement is covered by technical functionalities. This is documented in D3.1.1.
B. How will **data privacy** be ensured?	**b.1.** Ensure the application of ethical standards in processing and storing data (data privacy).	This is detailed in the next section.

4.4   DATA PROTECTION ISSUES (WP 2, WP 3-8, WP 9)

Data privacy	
A. How will **data privacy** be ensured?	**a.1.** Ensure the application of ethical standards in processing and storing data (data privacy).	Most services are protected by individual usernames and passwords, such as the Social Network (SN) Forum and the GeoRadar. At different meetings, the issue of what kind of data is required and what is the benefit for end users has been raised several times. We agreed in that only necessary information will be required (e.g. obligatory parameters are email, nickname and password). Other information will be optional, but its

		provision will be encouraged to ensure an optimum development of fundamental MApp functionalities, such as the recommendation service. MASELTOV application will provide minimum quality services to everybody. TI stores the data necessary to the offered services (SN Forum and GeoRadar). During the project (prototype phase) the SN Forum and GeoRadar data are stored in TI laboratory servers which are protected by a firewall that controls the incoming and outgoing network traffic. Access to these servers is controlled by a log-in process (user authentication with Username & Password). Only people in charge of the data center (TI personnel) and MASELTOV project TI developers have access to these data. At the time the services will be officially deployed (commercial phase) data privacy will be under the responsibility of the infrastructure provider.
	a.2. Make sure that the users are informed about the further usage of data or usage of data by third parties.	In the SN Forum, only users can decide if they share information with other users. A Board message can be properly set about the privacy of contents. In the GeoRadarservice, an authorization signed by users is required to localize them.
B. Are the respective **national laws respected**?	**b.1**. Find out the relevant national frameworks and rules.	The exploitation strategy plan for the second project year includes the contacting of local and national authorities so that these issues will become solved until the begin of the third project year.

C. How will data be processed **ensuring factual accuracy** and compliance with ethical obligations towards research participants?	**c.1.** Provide the opportunity to agree to/ decline any further usage of the data.	
D. How to ensure that the **results** are available to and **inform the other relevant WPs** in due time?	**d.1.** Develop a clear data privacy & security policy.	It will be developed in workpackage WP5.
E. Is it necessary to involve **external expertise**?	**e.1.** Consider getting relevant experts on board representing the respective national data protection commissions, or experts of other projects dealing with similar issues (e.g. UniteEurope).	In 2013, privacy and protection of data are discussed in detail, being managed by workpackage WP5 leader (AIT). It is thought to bring in as well opinions from respective national data protection commissions so that the framework will have the perfect impact. Experts from other projects, such as from UniteEurope, will be contacted for this purpose.

4.5   DISSEMINATION AND EXPLOITATION (WP 10)

General Issues		
A. Does the dissemination **respect ethical standards**?	**a.1.** Check dissemination plan and planned publications by ethical advisor	Several publications are planned for the coming year. Authors are asked to follow ethical standards
B. Could/does the presentation of project results do any harm to the research participants or immigrants in general?	**b.1.** Consult with advisory board regarding potential harms that the dissemination of project results may bring to research participants or to the broader immigrant population, or to society at large.	The advisory board did not identify any specific harm. 1st year reviewers did ask for some specific risks (women and child abuse) and the Consortia evaluated it (see Appendix of the Ethics Manual).
C. Are the perspectives and interests of all parties involved in the research taken into account in the final products and publications (researchers, immigrants,	**c.1.** Ensure that the end products and publications deriving from the project reflect a balanced inclusion of interests of all parties involved or potentially	These ethical requirements are reflected in the deliverable D10.4.2. Products functionalities are refined according to user requirements continuously monitored by WP2 in

migrant organizations etc.)?	affected by it	charge of taking care of all parties' needs.
D. Are there any activities foreseen to **enhance the usage** of the **products** by the target group (e.g. training)?	**d.1.** Plan and perform training activities to enhance the usage of the product prototypes by the target group (DOW Annex I, Task 10.1, Deliverables D10.1.2 and D10.1.3, Dissemination and Training Activities).	Information and training activities are not clearly planned, as NGO´s have pointed out in several meetings. It requires a clear design of activities. Possible risk.
	d.2. Implement dissemination campaign and inform other organizations about MASELTOV.	The first part of this campaign is part of the year-2 exploitation plan and will be reported in deliverable D10.4.3. The second part − when the project will be able to demonstrate software components − will be implemented in the third project year.

Dissemination and Training Activities		
A. Are there also **dissemination activities foreseen** for the users involved in the MASELTOV research?	**a.1.** Prepare support for users, e.g. on the MASELTOV homepage so that news that are important to the users will get published there but also that they may be able to express their thoughts about the targeted services.	This service has been foreseen and is planned to be implemented from August 2013 on NGO's have pointed out in several meetings to the risk of indefinition. It is necessary to define an action plan.
B. What strategies are foreseen to **promote the MASELTOV tools** among the target groups, local communities and stakeholders?	**b.1.** Involve target groups, local communities and stakeholders into local symposia in which they will be informed and MASELTOV services will be promoted.	See exploitation plan D10.4.3. Local symposia will be targeted in the second project year. See D10.4.3.
C. Are there also **training activities foreseen** for immigrants (e.g. to strengthen digital literacy)?	**c.1.** Introduce immigrants to language learning activities and strengthen digital literacy through the use of MASELTOV	NGO's have pointed out in several meetings to the risk of indefinition. It is necessary to define an action plan.

services, such as the mobile text lens for text translation and support of literacy.	

Standards in ICT Accessibility	
A. How can **accessibility** to the device be ensured for different social groups (e.g. low income groups, older persons, illiterate person, etc.)?	**a.1.** Ensure that the targeted services will be implemented so that the planned benefit for different social groups, such as elderly, illiterates and low income groups, will get realized in the MASELTOV prototype.	The new re-definition of the target user group does not focus on elderly users and illiterates, but low income groups are addressed. The accessibility of the low income group has been addressed by the exploitation strategy (see D10.4.3). This issue has been raised in our meetings and constitutes a central concern from an ethical perspective.
	a.2. Ensure that different social target groups will be sufficiently involved in the requirement analysis, the interface design and the evaluation of the service.	Within MASELTOV we target users with different cultural backgrounds (Turks, North Africans, Latin Americans). Following a user-centered design process we involved participants of all groups within the requirements analysis.
	a.3. Determine the relation of system specifications for immigrants to existing standards (see Task 10.3, "Standards in ICT Accessibility") and its context to different social groups.	Task T10.3 develops and foresees a new standard in ICT in the context of accessibility of the service by the immigrant user target group. Specific target groups within that coverage cannot be considered in a very detailed way but they will be mentioned as well. The development of that standard is not directly dependent, respondent or reflected in the MASELTOV service, however, it will be highly inspired by the system specification and in the user requirement documents implemented in MASELTOV.

Exploitation of results	

A. How will the mobile device be used **after the completion of MASELTOV**?	**a.1.** Apply consequently the exploitation plan in MASELTOV which includes three independent business models: (i) development of an application of fully integrated services (TI), (ii) provide specific tools for immigrants in the world's largest social network for language learning (BUS), (iii) develop a specifically outlined component for immigrants in a mobile service for navigation in public transportation (FLU).	The use of the mobile device and access to the MASELTOV applications are regulated by the Exploitation Plan docs, in particular the final version of D10.4.4. The exploitation strategy is agreed among all the partners in the MASELTOV consortium; industry partners contribute mainly on commercial issues and are responsible for editing the document.
	a.2. Ensure that the costs for using the MASELTOV application are sufficiently low so that it will be used by a majority of immigrants. The prices for the service will be also well available for low income immigrants.	In 2012-2013 the MASELTOV Consortium has started to discuss on different ideas on price/ cost/ self-sufficiency/ revenues sharing , for example freemium model, revenues by in.app advertisement and so on. The final proposal, or even more than one, will be included in the last version of the Exploitation Document (D10.4.4)
	a.3. Include local NGOs and government into the distribution and promotion of the service. This could mean to include the service in a "welcome package" that is given to every new immigrant.	During the second year of the project, contacts with NGOs and local public administration will be carried out to identify the best way to inform potential interested users about the MASELTOV applications
B. How will **sustainability of the project** be ensured?	**b.1.** Ensure that the industrial partners TI, FLU, BUS remain motivated to participate in the development of the mobile service for the benefit of immigrants. Any	Industrial partners interest is on selling services directly to users and/or to other intermediate organizations in order to have direct revenues. In addition, they can have indirect benefits from being more attractive to new customers. The

|		
	commercially available solution would guarantee an important impact of the project.	ethnic market segment is rapidly growing and has a great potential in all the European countries.
	b.2. Involve the NGOs and associated immigrants profoundly into the project so that the ideas of the project will be well discussed but also well distributed among an as large as possible audience that will be related to the end users.	WP10 relies on the work of WP2 for getting more trustful user requirements coming from direct user involvement.
	b.3. Perform dissemination on a high level, involving end users, audience from local citizen as well as scientists and political institutions so that the project ideas will be disseminated on a broad basis.	Industrial workshops and participation in international meetings and congresses are part of WP10 activities. In year one, an industrial workshop was organized in Italy (Rome) and other similar activities are planned in the future months involving political institutions and local administrations.
	b.4. Involve political stakeholders into the dissemination chain so that the mobile service and all ideas in the context of the MASELTOV service are well distributed with the opportunity of commercial but also political exploitation.	**See above.**

5. SUMMARY AND OUTLOOK

This follow-up document has served multiple purposes in favour of an appropriate management of ethical issues within the MASELTOV Consortium. Firstly, it has worked as a navigation tool to identify the main ethical risks emerged during the initial stages of the project, in particular those related to management issues, research standards, user involvement and data protection issues. Secondly, it has reinforced partners' awareness on the importance of taking into account possible ethical conflicts in their areas of expertise when developing the different services. Thirdly, it has promoted a collective reflection on the present and future of the project's outcomes, contributing to its coherence and reflexivity.

However, since it reported on the first year of an ongoing process, it constitutes a partial account that cannot cover all the issues at stake. For that reason, it will continue to grow in content and reach in the following months in order to stimulate ethical debates within the Consortium that lead to sustainable solutions for all the parties involved (research, business, technical and social partners) and in particular the main beneficiaries: people with diverse experiences of migration who arrive in Europe.

6. REFERENCES

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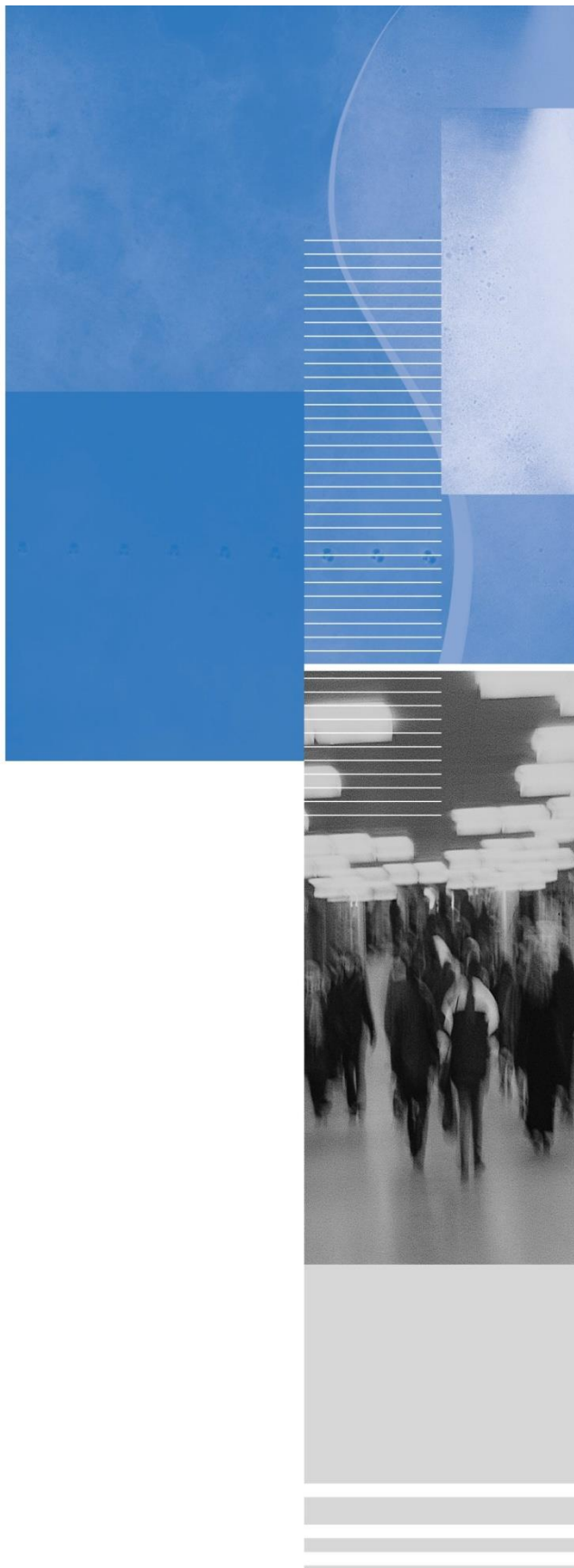
7. ANNEXES

ANNEX 1: Sample of usability guidelines (2nd-Stage Usability Testing Guidelines)

MASELTOV

Focus Groups
Guidelines

General Information

This guideline includes the information about the preparation as well as the How-To for conducting the focus groups. Based on the barrier-list every NGO provided as well as on the preliminary results of the conducted interviews, three main services of MASELTOV have been selected to talk about in detail. These services include:
the Geo-Social Radar
serious games including playful cultural explanations
the MASELTOV social network including social language learning

The main aims of the focus groups are
to get an impression about the **acceptance of the intended MASELTOV services**, as well as possible **preconditions** for the use of these services
gather ideas for **new helpful services**

The basic structure of the focus group is as follows:
Introduction
Introduction of focus group leaders
Introduction of sequence of actions during the focus group
Administrative aspects
Introduction of the project MASELTOV
Introduction of participants
Discussing one service after the other
Related barriers and problems (from barrier-list and interviews) are presented in a scenario-like way and participants are asked whether they know similar situations from their own or a friends experience
The accordant MASELTOV service is presented, as well in a scenario-like way
The service is discussed
Final discussion on MASELTOV in general
Handing out financial compensation

- Dates:
  - MRC (UK):
    - Arab speaking immigrants   22nd May 15:00
    - Spanish speaking immigrants   24th May 15:00
  - Danaida (Austria)
    - Turkish speaking immigrants   23rd May 14:00
    - Arab speaking immigrants   23rd May 10:00
  - Fundeso (Spain)
    - Arab speaking immigrants   28th/29th May
    - French speaking immigrants   28th/29th May

- Location: in the premises of the NGOs

- Duration: 2,5h

- Number of Participants: 8, 1 focus group instructors, 1 minute-taker to document the discussions and the results of the focus groups, 1 additional observer (from UOC, OU, CURE)

- All participants have to be able to express themselves in the language of the host country.

- Financial compensation for the participants: 25€

Preparation:

- Please read the guidelines in detail and try to empathise with the participants. They might not be that aware as you are about the aims of MASELTOV. Further it is not necessary to explain MASELTOV to them in detail. This is far too much information to process for 2,5h. Aims and services are just sketched.

- Try to stay in time. Time frames are given for every part of the focus group procedure (see headings below).

- Print out the pictures you find in the appendix (in colour if possible), so you can pass them around during the focus group. If you prefer you can also use a beamer to show the pictures.

- Prepare the financial compensation in 8 x €25, so you don't run into problems of division into share. Also prepare the sheet (financial_remuneration.docx) for signing that the money was received.

- Materials you will need: informed consent (twice per person), money for financial compensation, recording device, nametags for participants, print out of pictures from the appendix.

For the minute-taker:

- The minute-taker should write directly into this document during the focus group, because this is the easiest way to report the results.

- Anyways, the results of the focus groups should be reported according to the structure of this document.

1. BEST PRACTICES FOR WORKSHOP INSTRUCTORS

- Do not read aloud the headings. They only support you in organizing the discussion.

- Always remember the aims of the focus group.

- Phrase your questions in a simple way and avoid complicated or maybe unknown words.

- The whole group is addressee of the questions.

- Questions should be open-ended to allow participants to elaborate. Topics are proposed to the participants, not propositions. Propositions may only be made when participants are confused.

- Workshop instructors should not interfere with the partitioning of the verbal contributions.

- The questions should generate detailed descriptions and narrations by the participants.

- Immanently follow up on responses for further details.

- Asking questions based on statements of the participants have priority over asking questions which introduce new topics.

- After discussing topics the participants introduced by themselves other relevant questions may be introduced.

- At the end of the discussion, workshop instructors take up sequences in the discussion which seemed contradictory or conspicuous to them.

2. *INTRODUCTION (0' – 15')*

- Introduction of workshop instructors

- General introduction and explanation of sequence of actions (roughly)

  - Duration: 2,5h

  - Brainstorming for barriers in your daily life, presentation of MASELTOV services, discussion about the services, final discussion

  - *There are no wrong answers. We are interested in your thoughts and opinions. Everything you say and do is helpful for the project. The more you contribute to the workshop, the better it is.*

Introduction to MASELTOV:

The goal of the project with several partners from various European countries is to foster integration of immigrants into the host countries. Therefore a mobile assistant for smart phones will be developed that shall give access to information and help anywhere and anytime. The services of the mobile assistance include:

  - To teach home and host language in a mobile social community

  - To translate text by just taking a photo

  - To support finding a job

  - To get in contact with people who can help you

  - … other ideas that you would find helpful

Therefore, we want to learn about typical problems you are faced with in daily life and how smart phones could be helpful in these situations. Some questions might ask for obvious aspects but please try to answer them anyway.

Administrative Aspects:

- Audio or video recording: Ask the participants, if they agree to be filmed during the focus group. Recordings only serve as a backup for the minute-taker.

- Hand out the informed consent and tell the participants what is on the declaration. Wait till they have signed it and collect them again.

- Start audio or video recording

Introduction of participants

- Participants shall briefly introduce themselves: Say their name, (which they write on a name tag as well) and give some information on their past and current professional situation. The workshop instructors start.

3. NEEDING HELP IN CRITICAL SITUATIONS (15'-40')

a) Possible barriers

Sometimes situations might occur, in which it would be very welcome to have someone by your side who has experiences with legal issues, financial issues, knows certain procedures, and has the necessary language skills.

- o Imagine you just had a minor accident with your car. The other driver caused the collision and both cars are slightly damaged. You never had an accident before in Austria/Spain/the UK. The driver of the other car is stirred up and talks a lot and very fast.

- o You are standing at the counter in a bank and need help in opening a bank account. The bank clerk asks you to provide certain documents and you are overwhelmed with the forms you have to fill out.

Do you know similar situations from your own experience or a friend's experience where you needed help from someone else because of difficulties in verbal and non-verbal communication?

b) Presenting the volunteer radar

Scenario: Mesut is working as a mechanic in the garage of a friend. Although he has basic language skills in German/Spanish/English, they are insufficient to talk to his customers. In his language course, a colleague tells him about the MASELTOV application, which he can use for language learning. He can also use it to take pictures of a text and the app translates the text. One day, Mesut is involved in a minor accident with his car. The driver who caused the collision is talking a lot and very fast. Mesut is not able to understand a single word. Then he remembers that the colleague in his German course also told him about a volunteer radar.

(show a picture of geosocial (volunteer) radar - Appendix)

Using this tool, a user is able to search for nearby human volunteer assistance. In the manner of Skype (green: 'available') Mesut is able to contact a person nearby. He can see that a volunteer named 'Ahmed' would be available and close to the place where the accident happened. He immediately contacts Ahmed who arrives 5 minutes later. Ahmed mediates between the drivers and helps Mesut to fill out the forms for the other driver's car insurance.

c) Opinions and ideas for improvement

- What do you think about the volunteer radar?

- Would you use the volunteer radar?

- Would you mind you location being tracked?

- Are there any situations in which you would have needed help by a volunteer? If yes, please give some examples.

- Are there any persons you would not ask for help? Why?

- Are there any situations in which you would not ask anyone for help?

- o Financial issues (e.g. opening a bank account, withdrawing money)

- o Health issues (e.g. communication at the doctors)

- o Transport, navigation

- o Legal issues

4. *LACK OF KNOWLEDGE ABOUT THE CULTURAL NORMS OF THE HOST COUNTRY (65'-95')*

a) Introduce barriers

A lack of knowledge about cultural norms of the host community might lead to misunderstandings.

- Cultural differences in how to present oneself when applying for a job, e.g. whether to be modest and don't talk about oneself, or to present positively one's skills

- Language and communication skills necessary for dealing with bureaucratic issues are very culture specific

Do you know similar situations from your own or a friend's experience, when a lack of knowledge about cultural norms of the host country occurred?

b) Presenting playful cultural explanations

One of the aspects of the MASELTOV mobile social network includes games that help to discover culture-specific characteristics, train daily skills and understanding – about all cultures of the new home country.

Scenario: Ahmed studied Business Administration in Algeria and has longstanding professional expertise in this area. After a long period of waiting, he finally received his working permit for Austria/Spain/the UK and found a job advertisement perfectly matching his education and experience. Although he is very confident, that he would be perfect for the job, he is insecure about cultural norms for applying for a job in Austria/Spain/the UK. Norms for applying for a job highly differ from country to country and are essential for finally getting the job. A friend who had the same problems shows him the application MASELTOV with which one can learn cultural norms necessary for applying for a job in Austria/Spain/the UK. This includes sufficient training on word use in letters of application, how to present one's skills in front of a future employer, as well as dress codes for the job interviews. Ahmed played this game several times before he went to the interview and lost his insecurity about presenting himself in front of his potential future employer. *(show picture of game – Appendix)*

c) Opinions and ideas for improvement

- What do you think about this game? Do you think it is useful?

- Would you use something like this?

- Do you have any ideas for playful cultural explanations?

- Would you play entertaining cultural games (e.g. a riddle about typical traditions in Austria/Spain/the UK: a picture is presented to you including 1 correct and 2

wrong explanations and you have to choose the correct explanation)?

- There are two kinds of cultural misunderstanding: things you understand but don't like and things you don't understand. We are especially interested in the second aspect: Which kind of behavior did you have difficulties to understand when you came to Austria/Spain/UK?

- Do you have any idea how cultural differences can be learned in games?

5. *LANGUAGE LEARNING (95'-130')*

a) Introduce barriers

- After arriving in Austria/Spain/the UK it might be difficult to get to know other people, both from your country of origin as well as from the host country. Language is an important factor, but learning can be frustrating especially if you don't have much time.

- There are so many legal issues to come over that one sometimes gets the feeling to get it never done. But people do not give up. Nevertheless, one would be very grateful for a person who helps one to get these things done personally.

Do you know similar situations from your own or a friend's experience? How was it like when you arrived in Austria/Spain/the UK?

b) Presenting the social network *(show picture of Busuu Screenshot – Appendix)*

Scenario: Imaging Fatma who came to Austria/Spain/the UK 2 months ago. She is not able to speak the tongue of her host country, but she is an expert in Turkish language. In her hometown she used to teach young children how to read and write. Today, she would need someone to help her not only learning German/Spanish/English language, but also someone to give advice to her, who already lives in the city for years, and someone who knows about the problems she has with settling in the new home country. A friendly woman at the local authorities suggests the social network service of MASELTOV to her. As it is available on her smart phone she immediately shows it to her and Fatma downloads the MASELTOV app. It includes a free language learning tool where she finds a lot of people who want to learn a certain language but are also willing to help others learning a new language. Additionally, the social network of MASELTOV provides Fatma new connections to other women living in the same city. Those women have experienced the same problems and Fatma can ask them through the social network service, but also in person, what to do, e.g. when searching for a job or preparing for a job interview. After some time Fatma is also able to give advice to other newly arrived persons from other countries.

c) Opinions and ideas for improvement

- Do you know what a social network service is (e.g. Facebook)?

- What do you think about the MASELTOV social network service?

- Would you use the MASELTOV social network service on your mobile phone /smart phone?

- Would you mind creating a user profile containing information about
    - your education?
    - YOUR QUALIFICATIONS?
    - YOUR LEARNING GOALS?

- If you agree to create this information, with whom would you want to share it?

- If not, why not, and what might change your mind?

- WOULD YOU SHARE PHOTOS, VIDEOS AND COMMENTS ABOUT YOUR LEARNING EXPERIENCES WITH OTHERS VIA THE WEB (ON YOUR PHONE)?

    A. IF SO, WOULD YOU WANT TO DO THIS SO THAT ANYONE COULD SEE WHAT YOU HAVE SHARED, OR ONLY PEOPLE YOU SELECTED/ YOU ALLOW TO?

    B. IF YOU WOULD NOT SHARE ANY INFORMATION ABOUT YOUR LEARNING EXPERIENCES, WHY NOT? AND WHAT MIGHT CHANGE YOUR MIND?

6. *FINAL DISCUSSION (130'-145')*

- <u>Group discussion</u>
    - What are the advantages of the MASELTOV application?
    - Which disadvantages might appear? What would prevent you from using MASELTOV?
    - Do you think that your friends would use MASELTOV?
    - Would you recommend MASELTOV to others?
    - Which other functionalities would you like to use?
    - How could MASELTOV be promoted to a wider audience?
    - Do you have any other comments on MASELTOV?

7. *DEBRIEFING (145'-150')*

- Thank you very much for the participation.
- Hand out the financial compensation

Appendix

8. THE VOLUNTEER RADAR

Job application game

ANNEX 2: Samples of advertising material used in recruiting participants (MRC)

Research participants needed

Help us to create a mobile phone app for migrants new to the UK

2-hour time slots available on
Tues 23rd at 4pm and
Weds 24th April at 9am
taking place at 24 Churton Street, Pimlico, London

You get **£25** for taking part

Are you a smartphone user (do you use your own or someone else's smartphone)?

Are you between 18 and 35 years old?

Do you have Intermediate English?

Are you one of the following:
- From an Arabic-speaking country?
- A Spanish-speaking Latin America?
- From Turkey?

Have you been in the UK for up to 4 years?

If you would like to take part, contact Sara Wickert saraw@migrants.org.uk or ring Sara on 020 7834 2505 ext 106 or 07525 925 881.

*Research participants from
North Africa needed*

Help us to create a mobile phone application for new migrants

1-5pm, Tuesday 26th June 2012

We'll pay you **£30** for taking part in a discussion at the Migrants Resource Centre in Pimlico

To take part you need to:

- Be a native **Arabic** speaker from **North Africa** and now living in the UK
- Have good English

For info or to register email saraw@migrants.org.uk with your name, country of origin and contact phone number. Or ring Sara on 020 7834 2505 ext 106
  The session will take place at 24 Churton Street, London SW1V 2LP. A light
  lunch will be provided. **You <u>must</u> register by Friday 22 June to take part.**

ANNEX 3: Research paper

Conducting ethical research with a game-based intervention for groups at risk of social exclusion

Ian Dunwell

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Abstract. With developers of entertainment games increasingly exploiting the potential the platform affords for capturing rich data on user behaviour, adopting similar paradigms for "serious" purposes such as positive social change or public health intervention is a tempting prospect. However, exploitation of this potential must be tempered by a careful consideration of how ethical principles can be adhered to and applied to foster and sustain trust amongst end-users. This is particularly the case for at-risk groups, who may be particularly vulnerable to misunderstanding or misinterpreting requests to participate in research activities. In this paper, several key areas in which serious games present unique ethical considerations are presented and discussed: the unique nature of play as a source of data for analysis, the motivating role of the game and its use as an incentive for participation, and the impact of the entertainment gaming industry and its conventions user expectations. A case is presented based on preliminary work in developing a serious game for European migrants, and a number of key areas for consideration described. Through discussion of the emergence of methods and techniques for the analysis of data arising through play, the technological urgency for development of mechanisms to support ethical capture and processing of data from game-based learning environments is noted. To conclude the paper, future ethical dilemmas brought by success in achieving technological platforms capable of stimulating and managing behavioural changes are discussed.

1 Introduction

Entertainment games, and their serious counterparts, have attracted a wide range of attention from various sectors of the research community. With a little over a quarter of 13,000 Europeans surveyed in 2010 agreeing they considered themselves "gamers" [1], the pervasiveness and widespread appeal of this emerging medium is apparent. Attempts to demonstrate the impact and value of these serious outcomes often seek to utilize data captured from interactions between user and game, however, as an emergent medium, how users perceive and trust games requires careful consideration to ensure both an ethical and methodologically-sound approach to research. Since the early 1990s, the potential negative impact of emerging technology on exclusion through a "digital divide" has been well documented [2]. However, as technology has matured and become increasingly pervasive,

interventions seeking to harness this same technology to promote inclusion and empower groups at-risk of social exclusion have equally been observed to emerge [3-5]. In this article, we refer to "at-risk" groups specifically in terms of their risk of social exclusion; itself a concept lacking a ubiquitous definition, though broadly described as a state in which individuals fail to contribute economically, socially, and politically to the society in which they live [6]. In Section 2, this paper presents from a pragmatic perspective a number of ethical considerations specific to serious games intended for these at-risk groups, reflecting on the unique case of game-based interventions, leading to discussion of both the need for trust, and routes towards obtaining it. Section 3 then reflects upon these considerations in light of the European Mobile Assistance for Social Inclusion and Empowerment of Immigrants with Persuasive Learning Technologies and Social Network Services (MASELTOV). The paper concludes by considering the broader ethical questions that must be confronted in the drive to create effective game-based methods for social, societal, and behavioural change.

2 Fostering trust in at-risk groups through an ethical approach

The challenges posed in ethically assessing the impact of technology with at-risk groups have been explored in general terms in a wide range of frameworks [7]. What, then, makes serious games worthy of special consideration? Interesting is the ease with which games are labeled as either "serious" or "entertainment" when few other media are defined in such absolute terms (consider, for example, the notion of "serious television"). Yet does this distinction extend to the end-user? It is not uncommon for serious games to adopt a stealthy approach to their learning objectives [8], and in doing so particular care must be taken in ensuring fundamental ethical processes such as informed consent are adhered to. However, the issue here is self-evident: if the user is informed of the objectives of the game, the pedagogical method is compromised, and a study of users in a naturalistic context becomes impossible. The lack of immediate solutions to this problem is no doubt a contributory factor to the paucity of conclusive, generalizable and objective studies showing the impact of game-based learning in a natural usage context. Whilst a range of studies have demonstrated the situational benefits of such approaches [9-11], a need still exists for a fuller understanding of how the indirect nature of learning through play is best selected and applied to meet a given learning requirement.

The depth of interaction, and possibility games afford for increased connection and emotional investment from users [12] can be argued as one of the primary mechanisms through which they sustain engagement and foster intrinsic motivation to play [13]. In the case where the rationale behind the selection of a game-based approach stems from its perceived ability to reach at-risk groups outside of formal or structured contact, adhering to ethical principles can be particularly challenging when seeking to compete for screen-time in a leisure context. Commercial games such as Farmville achieve success by adapting to the user [14], based on data capture methods that have been argued as unethical [15]. We may seek to implement our ethical approach, yet can we reasonably expect to attract users when we actively obstruct their access to ensure they are informed? Similarly, without the ability to customize and adapt our games without the express consent of the user, we should expect to provide an inferior service to those users who opt-out. If we allow users to opt-out of research activity, what incentive do we offer for them to participate, and if none, can we reasonably expect sufficient participants to ascertain whether our serious game achieves serious impact? Shifting context to a classroom, trial, or other environment where extrinsic motivation can be relied upon is an obvious solution, though if this is unrepresentative of the actual usage context, findings may be of limited value.

Fostering trust is therefore essential in guiding the decisions of participants to allow researchers access to their data, as well as allowing serious games to exploit the adaptive and iterative approaches shown to improve their efficacy [16]. In entertainment gaming, and more generally software development, an End User Licensing Agreement (EULA) commonly accompanies the process for installation and first access. Increasingly, these agreements include consent to have data analyzed and kept for marketing purposes. A study of 80,000 users found that 50% of users took less than 8 seconds to read the agreement. Such was the extent of over-familiarity with the EULA process, users were observed to be more inclined to blindly accept terms if the presented screen resembled an EULA [17]. In short, the majority of users have become accustomed to accepting these agreements without review; an unsurprising finding when considering that, in terms of perceivable impact on the user, the EULA is hard to recognize as more consequential than any other confirmation dialogue during an installation or startup process. Yet does this lack of attention from the user stem from a lack of understanding of what they are consenting to, or is it that these users understand the implications of a standard EULA and are happy to consent? Even presented with research addressing this question, it would be unlikely to apply to broader or generalized usage contexts.

An EULA is typically deployed with provision of service as an incentive: users unwilling to consent cannot typically access the software or game, therefore should we also consider the ethical implications of using a serious game as a vehicle to incentivize consent? For any intervention with intrinsic appeal, particular attention needs to be paid to the impact incentivisation may have on decisions to opt-out. A participant eager to play the game may not be a willing test subject; yet they may be willing to disregard this concern to gain continued access to the game. The extent to which this effect needs to be considered and planned for does, as with any other intervention, depend highly on the ability to ensure the participant makes the decision to participate in an informed manner, with the capacity to play the game whilst opting-out of the associated research activity. Thus, care should be taken when conducting research alongside users who are intrinsically motivated to play the game, but not necessarily to participate within the research programme. The title of this section acknowledges that an ethical approach is central in developing the trust required amongst end-users to perform effective evaluations. Important is not only the need to adopt an ethical approach, but how to communicate it effectively to the end-users without compromising the pedagogic or behavioural model at the core of the intervention's design. In the next section, we discuss how these principles might be applied in the specific case of a game-based intervention seeking to lower the risk of social exclusion amongst migrants entering the EU.

3 Game-based intervention for European migrants

We consider specifically in this section the case of a serious game currently being developed to support migrants entering the European Union (EU) from non-EU states as part of the MASELTOV project. The audience, therefore, is typified by the need to develop an understanding of the language and culture of the host country, as well as form social ties which lead to inclusion. In such a case, it is suggested games can form an effective basis for cultural learning through playful scenarios, and the gamification of existing resources. In this case the ethical approach builds upon the established principles of informed consent, though also notes the difficulties that can be posed in achieving this with an audience whose linguistic and cultural skill-set is defined by their country of origin rather than destination. Key, then, is to limit the requirements for these skills within the game, and to make the consent process highly transparent and accessible, as well as giving reference to the cultural

context of the user. Technology is increasingly allowing data from users to be monitored and assessed. As the game developed for MASELTOV will be employed through a mobile device, technological methods for gaining consent for tools such as location awareness can be capitalized upon. However, again consideration must be afforded to the evidence given in the previous section, which suggests consent achieved through user agreements may not be fully informed. To address this, secondary mechanisms for ethical validation and information must be fully explored.

In addressing the general problem of social exclusion, the game must also be considered in its wider context as a single tool amongst a broader set of applications. The motivation games can stimulate, as outlined in the previous section, must be carefully considered with respect to its implications for how users might interact with the broader MASELTOV platform. A technological need to ensure users retain ownership of the data the system generates on their behaviour therefore emerges; a complex challenge when considering the interactions between multiple applications as well as the social context of the platform. Work within the MASELTOV project will therefore explore the role the game can play as both a conveyor of content and stimulus of intrinsic motivation, and central to this work will be an understanding of how trust can be sustained through a transparent, accessible, and integrated approach to data capture.

4 Conclusions

This paper has focused primarily on the pragmatic aspects of implementing a game-based solution or intervention to a problem. Indeed, serious games are commonly put forth as a medium with high potential as a means of behavioural change in a public audience. Many games already exist seeking to shift behaviour to certain ends; for example stimulating healthier eating [18], treatment adherence [10], and behavioural science frequently underpins their design [19]. Taking the general goal of these approaches to be games capable of changing behaviour to any stated set of parameters, and ethical questions immediately emerge, particularly when one of the largest scale serious games to-date has functioned as a military recruiting tool [20]. More to the point, can, or should, we expect users to "trust" interventions which seek to covertly, or even insidiously, change their behaviour? Whilst games are by no means the sole technology for which these concerns must be raised, they are, based upon the above cited examples, one of the most powerful.

A future where these approaches are effective enough to require these questions to be answered fully is perhaps not as far away as we might like to think. Approaches to understanding "big data" [21] are increasingly allowing us to interpret meaning and models from complex systems and behaviours. Significant future investiture will undoubtedly enable research that explores how these techniques to be applied to iterate and adjust these complex systems to our own ends. Yet in the context of platforms for social, societal, or behavioural change, the ethical dilemmas these systems may raise cannot be understated. In fact, there can be little doubt that an information-driven approach capable of adjusting societies and behaviours on a large-scale is no less of an ethical conundrum, or, indeed, as potentially devastating, as Oppenheimer's bomb. We might, as well-meaning researchers, seek to shift behaviour for short term public health gain, such as promotion of healthier lifestyles, but we cannot truly understand the "butterfly effect" our actions might stimulate. Though digital technologies and other emerging media only constitute individual parts of the complex structures underlying changes in behaviour, it is important to be mindful of this wider picture. In doing so, we must ask ourselves not only how we achieve our goals of change, but how we can expect to understand fully their consequences.

Acknowledgements

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