Abstract

The following report outlines the quantifiable outputs of the Research Coordination process, and provides some insights into which processes worked well within the SOCIETIES Integrated Project. This report discusses some of the observations from the field trials, interviews, developer feedback, which form a more subjective analysis of the research implications of these results.

[End of abstract]
Disclaimer

This document contains material, which is the copyright of certain SOCIETIES consortium parties, and may not be reproduced or copied without permission.

In case of Public (PU):
All SOCIETIES consortium parties have agreed to full publication of this document.

In case of Restricted to Programme (PP):
All SOCIETIES consortium parties have agreed to make this document available on request to other framework programme participants.

In case of Restricted to Group (RE):
All SOCIETIES consortium parties have agreed to full publication of this document. However this document is written for being used by <organisation / other project / company etc.> as <a contribution to standardisation / material for consideration in product development etc.>.

In case of Consortium confidential (CO):
The information contained in this document is the proprietary confidential information of the SOCIETIES consortium and may not be disclosed except in accordance with the consortium agreement.

The commercial use of any information contained in this document may require a license from the proprietor of that information.

Neither the SOCIETIES consortium as a whole, nor a certain party of the SOCIETIES consortium warrant that the information contained in this document is capable of use, or that use of the information is free from risk, and accept no liability for loss or damage suffered by any person using this information.

Impressum

[Full project title] Self Orchestrating Community Ambient Intelligence Spaces
[Short project title] SOCIETIES
[Number and title of work-package] WP9
[Document title] D9.2 Research Coordinators report
[Editor: Name, company] Micheal Crotty, TSSG - Waterford Institute of Technology
[Work-package leader: Name, company] Steffan Gessler, NEC
[Estimation of PM spent on the Deliverable] 4

Copyright notice

© 2014 Participants in project SOCIETIES

Optionally list of organisations jointly holding the Copyright on this document
Executive summary

The following report outlines the quantifiable outputs of the Research Coordination process, and provides some insights into which processes worked well within the SOCIETIES Integrated Project. It begins with a description of the more generic project outputs initiated and/or managed by the research coordinators.

A second aspect describes some of the activities undertaken and the processes used to achieve “added-value” to the existing work done on the project. This included co-ordinating and aligning some development activities into complementary research “innovation areas” and promoting innovation activity.

A summary of some of key impacts of the research co-ordination includes:

- Innovation extraction and distillation
- Magazine production
- Assistance with key dissemination events
- Promoting use of innovations within trials.
- Encouraging paper publication.
- Providing guidance and monitoring ethical issues
- Liaising with the development teams to resolve innovation/implementation conflicts.

As a final gesture, this report discusses some of the observations from the field trials, interviews, developer feedback, and identifies potential future research areas.
# List of authors

<table>
<thead>
<tr>
<th>Company</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>HWU</td>
<td>Nick Taylor</td>
</tr>
<tr>
<td>TSSG</td>
<td>Micheal Crotty</td>
</tr>
</tbody>
</table>
# Table of Contents

Executive summary ........................................................................................................... 3
List of authors .................................................................................................................. 4
Table of Contents .............................................................................................................. 5
1 Introduction .................................................................................................................... 6
   1.1 Scope and Activities ............................................................................................... 6
2 Quantifiable research outputs ....................................................................................... 7
   2.1 General impact ........................................................................................................ 7
      2.1.1 Innovation areas and innovation tree .............................................................. 7
   2.2 Magazines .............................................................................................................. 8
      2.2.1 Reflection ......................................................................................................... 9
   2.3 Organised events with high research impact ......................................................... 9
      2.3.1 FIA Dublin ..................................................................................................... 9
      2.3.2 ICT 2013 ...................................................................................................... 9
      2.3.3 Reflection ....................................................................................................... 9
   2.4 Innovation use in Trials .......................................................................................... 10
   2.5 Innovations in published papers ............................................................................ 13
3 Reflection ...................................................................................................................... 15
   3.1 Paper publishing calendar .................................................................................... 15
      3.1.1 Reflection ....................................................................................................... 15
   3.2 Code of ethics ........................................................................................................ 16
      3.2.1 Reflection ....................................................................................................... 16
   3.3 Innovation areas and innovation tree ..................................................................... 16
      3.3.1 Reflection ....................................................................................................... 17
   3.4 Results from field trials ....................................................................................... 18
      3.4.1 Reflection ....................................................................................................... 18
4 Conclusions .................................................................................................................... 19
   4.1 Impacts .................................................................................................................. 19
   4.2 Potential future work ............................................................................................. 19
References ......................................................................................................................... 20
Appendix A ....................................................................................................................... 21
   Personal release form ................................................................................................. 21
   Why is the data being collected ................................................................................. 21
   Opt-in / out clause .................................................................................................... 21
Glossary ............................................................................................................................ 22
1 Introduction

The role of the Research Coordinator is defined as:

“Responsible for coordinating and management all project wide research activities and ensuring that all such activities are in-line with the project’s objectives and vision. As such the Research coordinators will liaise with the WPL and Technical coordinator to ensure research activities are progressed.”

This deliverable aims to describe some of the activities and outputs from the Research Co-ordinator activity, in delivering on this overall goal.

1.1 Scope and Activities

The scope of the role was a project wide facilitation for the encouragement and promotion of the research activities within the SOCIETIES project. This was broken down into five of research coordination sub objectives. A summary of some of the key activities of the research co-ordination task and its relation to these sub-objectives can be seen in the following list:

**Obj A.** Managing conflicts where they occur in research/implementation activities.

**Obj B.** Ensuring the technical decisions are in line the research objectives and vision of the project.

**Key activities:**

- Liaising with the development teams to resolve innovation/alignment conflicts.
- Promoting and encouraging use of innovations within trials.

**Obj C.** Putting procedures in place and monitoring and quantifying the research output of the project.

**Key activities:**

- Encouraging paper publication, capturing output, and suggesting collaborations.
- Establishing publication procedures and a publication opportunity calendar.

**Obj D.** Promoting and encouraging the production of research material.

**Key activities:**

- Innovation extraction and distillation
- Providing guidance and monitoring ethical issues
- Magazine production

**Obj E.** Facilitating collaboration between other EU projects by acting as a contact point.

**Key activities:**

- Assistance with key dissemination events (FIA2013, and ICT2013)
- Presentations at EU organised concertation and networking events, keynote speeches, and collaborations on book chapters with other EU projects.
2 Quantifiable research outputs

This section outlines the quantifiable research outputs of the project.

2.1 General impact

There were a number of activities which helped promote the research outputs of the project.

2.1.1 Innovation areas and innovation tree

As part of the innovation discovery, distillation and elucidation process on the project innovations, a map of the innovation areas was produced. This helped internally, to focus partners on some of the more innovative aspects of SOCIETIES, as well as giving a visual reference for others to see the breath and innovation areas contained within SOCIETIES. A description of the process is given in the reflection section. A special mention should be made to the design and usability experts, for packaging the innovations into an appealing and presentable form of an innovation tree.

![Illustration 1: The SOCIETIES Innovation Tree](image)

As an example of the usefulness of the this output, was in guiding further dissemination material. The following poster snapshot provides a concrete example of this impact.
Two magazines were produced as a direct consequence of the impact of the Research Coordinators. The first issue of the magazine [1], focused on the innovation areas. A general introduction to the SOCIETIES project was given, followed by an introduction to the innovation areas. Each innovation area was then drilled down further by high-lighting a specific innovation, describing it and providing a concrete example of its usefulness. A large effort was made to use simple language to describe the innovations, avoid in-project jargon wherever possible, and highlight potential applications of the innovations in an easy to understand manner.

The second issue of the magazine [2], focused on the trials, and in particular the use of the innovations within the so called “third party” services (see glossary) used within those trials. This helped promote the platform as a whole, and highlighted the availability of innovations for use by people and organisations not involved with SOCIETIES.
2.2.1 Reflection

The SOCIETIES magazines were generally, quite well received, and hopefully helped make an impact at key dissemination events. The production quality (glossy production) and quality of the visual work made it appealing for “browsing” by interested parties. The addition of an online browsing capability helped promote the project to a wider set of people.

2.3 Organised events with high research impact

A wider selection of organised events is available in the Dissemination Deliverable D9.4. However, two key events where SOCIETIES was represented, were also focused on by the research coordinators to maximise the dissemination of SOCIETIES research results.

2.3.1 FIA Dublin

This event was selected as a high impact place to disseminate some of the research outputs of SOCIETIES. With this in mind a large a push was made to make a version of the SOCIETIES magazine available for this event. This first version of the magazine covered the SOCIETIES innovations in detail [1].

2.3.2 ICT 2013

This event was selected as it is a key event to solicit feedback from fellow European and other researchers. The second issue of the SOCIETIES magazine was targeted at disseminating the impact the innovations had on service development [2]. This helped provide useful feedback on potential further applications of those innovations, and generated discussion items with interested parties.

2.3.3 Reflection

The SOCIETIES presence at these events was also well received. The complimentary availability of SOCIETIES magazines, posters, flyers etc. also helped to make a good visual impact, and were a convenient reference point for explaining the SOCIETIES project to people.

While it is impossible to accurately tell which individual components in the above co-ordinated campaign contributed the most, the overall effect was spikes in the interest of SOCIETIES during and after the events.
2.4 Innovation use in Trials

As part of the project work plan, end-user trials were planned. These trials showcased the third party services\(^1\) in scenarios where they are likely to be used. These services also showcased use of the SOCIETIES platform and its innovations.

The following diagrams attempt to summarise the use of flagship innovations within each of the use-case trials. Where multiple trials took place, the results of each of the individual trials has been combined for consistency.

*Illustration 3: Innovations in the Enterprise trials at Intel, ICT 2013 and at HWU*

Each flagship innovation is given a different colour, for example, Location (at the bottom of the diagram). The relative size of the innovation colour is an indication of how often an innovation was used, and the

\(^1\)Produced by any non-SOCIETIES consortium member. See glossary.
degree to which it was exploited. For example, Location was used in three services (Personalised Agenda, Context Aware Wall, and Networking Zones) but played a more critical role in the Networking Zones and Context Aware Wall services. From the diagram it can be seen that Privacy, Location and Community Orchestration were the most used flagship innovations.

Illustration 4: Innovations used in the student "in-the-wild" trial with intervention games

There were 6 services used in the student trial, including the intervention games, used to promote use of the platform. Again the relative size of the innovation colour is an indication of how often an innovation was used, and the degree to which it was exploited. There were five “third-party” services used in the trial. Privacy, Location and Community Orchestration were again the top flagship innovations. A key difference within this trial was the extended time period over which the trial took place allowing learning to make a bigger impact. This facilitated use of the subtler flagship innovations, namely; Trust, Learning and Community Preferences. Finally, community context was exploited more within this trial than in the enterprise ones.
Illustration 5: Innovations used within the disaster management focus groups and demonstrations

There were six services used within the various disaster management focus groups, cogitative walk through, and demonstrations. In terms of flagship innovations, Privacy and Location were again the two most used by services, with an even split between the remaining flagship innovations. There was higher degree of specialisation within the Disaster Management services, as services were developed that preformed one or two functions associated with a given role, for example, the Data Collector service. This aspect reflects the impact of focus groups, cognitive walk through etc., in highlighting this requirement. Some services could be combined with other disaster management services, for example, iDisaster and iJacket services.
2.5 Innovations in published papers

While the services used within the trials, focus groups, and walk-throughs provided a focus for the SOCIETIES flagship innovation use, they do not give a complete story. This section focuses on highlighting some of the dissemination output and the impact of the innovations specifically, on research paper output.

A full list of the published papers from SOCIETIES is provided in D9.4 [4], so will not be included here. However, to quantify the impact the innovations, these papers have been analysed and linked back to the flagship innovation that spawned the publication output where possible. It should be noted that some of the publication output covers innovations that are not flagship innovations. Also some publications also included more than one flagship innovations.

In order to quantify these publications in a useful way the following rules were used to categorise them.

1. Where the primary focus of the publication output relates to a flag-ship innovation, it is counted as a publication under that innovation area.
2. Where the publication output covers more than one innovation area, or describes more general SOCIETIES concepts, it is counted under the “General” category.
3. Where the publication describes non flagship innovation, that is closely related to the operation of a third party service, it is counted under the “Field trial” category.
4. Finally, the “General” category is used as a catch all.

A summary of this classification process is contained in the following table.

<table>
<thead>
<tr>
<th>Innovation Area</th>
<th>Total</th>
<th>Book</th>
<th>Article</th>
<th>Journal</th>
<th>Conference</th>
<th>Keynote</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>22</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Learning</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Community Pref</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>User Intent</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Community Orchestration</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Trust</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Privacy</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Community Context</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Location</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Field Trial</td>
<td>20</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>15</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1: Publication output categorised by innovation area

The total column is used to count the total publications in a given category. The Book category counts book chapter publications. The Article category counts general articles, published in trade magazines, or general magazines like ERCIM. Journal and Conference counts referred journal/conference publications. Finally, keynote captures keynote presentations given. A visual summary is given in Illustation 6.

Each flagship innovation is given a different colour, for example, Location (at the bottom of the diagram). The relative size of the innovation bubble is an indication of how many publications describe an innovation area. Again we remind readers that the publication was counted only once even if it referred to more than one flagship innovation area.
Illustration 6: Publications related to innovation areas

The large size of the General category and “Field trial” category reflects innovation publications made in non flagship innovation areas. For example, context management is not a flagship innovation, however “community context” management is.

Of the flagship innovation areas, Community Orchestration and Community Context are the leading areas, followed very closely by Learning and Privacy. This captures the novelty of these innovations, as papers on these topics were more likely to be accepted. All innovation areas, resulted in publication output.
3 Reflection

The aim of this section is to give an overview of which co-ordination activities, under the subjective viewpoint of the research coordinators worked within the project. Some observations are made on how this could be improved, and in other cases they reflect the feedback of peers, researchers and other Framework programme participants.

3.1 Paper publishing calendar

As part of the Research coordination support activities, the research coordinators published a calendar of conferences, journals and dissemination opportunities. This calendar was organised by Call For Papers (CFP) deadlines, and included the pre-agreed consortium notification period for published papers.

Illustration 7: Dissemination Calendar

This calendar can be seen in Illustration 7. It was an extension to the SOCIETIES wiki, so was available in a prominent and convenient location.

3.1.1 Reflection

In general this worked well within the consortium. However, a few partners sometime strayed into the notification period as the calendar was organised by calendar month, and not by weeks. For example,
conference on the 3rd June is not visible above. However had the calendar shown the next four weeks, then this would have been visible after the first week in May.

3.2 Code of ethics

The SOCIETIES project involved real “in-the-wild” end user trials, thus parts of the system handled and stored real user data, including some “personally identifying information” as defined by the EU privacy directive and relevant law [5]. With this in mind, the research coordinator’s designed a template privacy statement for use by each of the end-user trials.

The template privacy statement, and user consent form was validated by the Research and Ethics committee of Waterford Institute of Technology. Pre-approval was sought to ensure that proper ethical standards were maintained by TSSG researchers in specifying or assisting in the end-user trials, and in their handling of any end-user data necessary for them to perform their work. A copy of the user-consent form is attached in Appendix A.

For the student trial, a variant of the form was used and validated by the Heriot-Watt university ethical and standards committee. This additional approval process and adjustment stage was mandatory as the student trial was conducted in Heriot-Watt university.

For the Disaster Management, another variant of the form was developed for use within DLR’s disaster management focus groups and trials. This form was necessary as the end user data was stored on a server in DLR in Germany, and thus fell under the remit of DLR’s ethical procedures.

In the Enterprise trial, all the end-users were Intel employees. The nature of the trial, for example, its voluntary nature was explained, and all other ethical considerations were already governed under existing procedures, policy documents, waivers and contractual agreements.

3.2.1 Reflection

In general this was seen as very successful for all concerned. Trial managers and service developers received guidance on the ethical aspects of conducting trials, and had sample agreements available to speed up their own versions when necessary.

3.3 Innovation areas and innovation tree

The innovation areas were a result of a long process of discovery, extraction, discussion, and encouragement. Each task leader was asked to produce a short list of the innovations they expected to contribute to from their task. In parallel, innovation statements were asked of each partner. The research coordinators then started a process of cross-referencing and correlation of the the two inputs, by categorising the innovations under pseudo categories, for example, “CIS formation”.

By grouping these pseudo categories, and cross referencing with the project objectives, likely innovation areas were distilled. These innovation areas were presented to the project on several occasions to solicit feedback and drive further research activities. In most cases, partners saw the gaps and potential overlaps between partners and therefore agreed to align activities.

Finally, the innovation tree in its raw form was given to some graphic design experts. Using some innovative ideas on how best to represent this information in order to make it more understandable and visually appealing, the Innovation Tree grew and flourished.
3.3.1 Reflection

Overall this was seen as a success of the project. This activity helped partners and developers but some focus on the innovative areas of the project. It should be noted that the mapping to innovation areas was not perfect. There was a wide variety of innovative ideas on the project and some of these did not neatly fit into a single category. This can be seen from the number of “General” and Field trial” related publications. Other innovations evolved as a result of the interaction between innovations. The following table summaries the percentage of overall innovations that did not match perfectly.

<table>
<thead>
<tr>
<th></th>
<th>Journal</th>
<th>Conference</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Trial</td>
<td>2</td>
<td>14</td>
<td>16</td>
<td>21.3%</td>
</tr>
<tr>
<td>General</td>
<td>3</td>
<td>13</td>
<td>16</td>
<td>21.3%</td>
</tr>
<tr>
<td>Innovation areas</td>
<td>10</td>
<td>33</td>
<td>43</td>
<td>57.3%</td>
</tr>
</tbody>
</table>

For the most part these innovation areas captured the research activities of partners, aligned partners who were working on complimentary innovations and also highlighted overlaps. Where an overlap was identified further collaboration between the individuals was instigated, and the technical coordination adjusted where possible, to re-align partners into complementary activities.
3.4 Results from field trials

The evaluation of the trial activities is contained within deliverable D8.9 [3]. This is a thorough examination of the third party services, with each of the relevant communities (student, enterprise and disaster). It is acknowledged that “an evaluation of a social and pervasive platform is a complex and onerous endeavour”.

However to get the maximum benefit from SOCIETIES, we needed to solicit feedback from the “end-user’s” of the platform and services. As summarised in D89, the project was “close to hearing the ‘voice of the user’ and that voice has generally responded positively to our innovative offerings”.

The Enterprise community was presented with two trial activities. The first was a role play trial conducted in Intel, where trial participants were asked to role play a certain scenario for half a day. As part of the role play, each participant was given a set of tasks to do, and a “guardian angle” assigned to assist (but only when asked). The second trial was of the “Relevance” application within a real conference scenario. This was a full “in-the-wild” trial for a period of 3 days. In order to solicit feedback, this trial was complimented by think aloud task trials and cognitive enquiry, i.e. shadowing real end-users at the conference, with selected volunteers.

The Student community received a single trial over an extended period of six weeks. In order to encourage use of the third party services, and by extension the SOCIETIES platform, intervention games were used. These games promoted collaborative interaction using the platform and helped generate a “network effect” for student end-users. This network effect was necessary to evaluate community formation and management aspects of the platform.

The Disaster community had a number of walk-throughs with focus groups and demonstrations of “third party” services. Concerns were expressed at the flow of information, specifically, who gets the information and how relevant the information truly is.

3.4.1 Reflection

We have learned a lot of lessons about the difficulties of trying to deploy and evaluate the innovation within a complex platform.

The Enterprise trials revealed an expected concern of the privacy aspects of the platform. In general, end-users seemed okay in disclosing information for a specific purpose, especially if the exposure was short lived e.g. Network Zones. However, this was not fully shown in the first trial, as the data shared was “role playing” profiles. The Relevance application was conceptually liked and deemed useful, however, the total number of end user's was not sufficient to draw strong conclusions.

The use of surveys with the students was beneficial. These surveys were conducted before and during the trial to ascertain students attitudes to pervasive systems as the trial progressed. This was complimented by “exit interviews” to gauge how the students felt after the trials, and their opinions of the various merits of the platform.

The students felt the applications were generally quite useful, and suggested extending the services into new pervasive contexts, for example, browsing the web. They liked the concepts mixing pervasive and social computing. They had mixed feelings on the use of the KINECT which was a slight surprise. AskFree proved the most popular service. Privacy concerns were expressed and expected as the data was real students profiles, and names.

The Disaster community, raised the importance of relevant filtering of information, to allow people to focus on more important aspects. Both the Remote piloting and Geo-fences were perceived as useful services. While not explicitly expressed, trust in the system may be an issue, for example, who or what decides relevancy of information.
4 Conclusions

In general the research coordinators are delighted with both the quantity and quality of the research work done by the SOCIETIES project partners. A key highlight for the project was the publication of the SOCIETIES magazines; Issue 1, covering the SOCIETIES flagship innovation areas and Issue 2 covering our user trials. A second highlight was the successful completion of the trials, in particular the student trial which generated some high quality feedback on the projects vision, implementation and generated some illuminating comments from the participants.

The research coordinators would like to acknowledge the effort made by project partners in pushing SOCIETIES to achieve excellent research outputs.

4.1 Impacts

The research coordination activities have resulted in the following impacts on SOCIETIES:

1. Innovation extraction and distillation
2. Magazine production (incorporating 1 and 2 above)
3. Assistance with key dissemination events
4. Promoting use of innovations within trials.
5. Encouraging paper publication.
6. Providing guidance and monitoring ethical issues
7. Liaising with the development teams to ensure that the SOCIETIES innovations were integrated into the implementation.

4.2 Potential future work

A key point that became apparent during the the trials was the students’ expectation that applications from different “third-party” service providers should ideally inter-operate more. In particular, data from these services should be shared more widely between them. Whilst the SOCIETIES platform offers a number of mechanisms for data sharing, it is often the case that the developers of one service are unaware of the uses which the services of others could make of the data which their service collects. As a result, they do not report that data to the relevant platform components so that other service developers can take advantage of it. This leads to two important considerations for potential further work:

• Encouraging interoperability between service providers (providing incentives for sharing data)
• Facilitating data portability between service providers (easing the processes of data sharing between providers and of changing providers)

From the Disaster community, information filtering was a key concern. In particular, filtering information in real-time, with additional provenance and verification of the information accuracy to increase its value to disaster relief workers and operational management staff. Two key research challenges which need to be addressed in order to improve that trust that can be placed in information include:

• Verification and reputation scoring mechanisms for crowd-sourced data.
• Transparency of the processing which has been applied to information by intermediaries.
References


Appendix A

**Personal release form**

By signing and dating this form I agree and consent to the following:

- I authorize the Societies project to create recordings of my image, likeness, and/or voice ("Recordings"), in connection with my participation in the Societies project.
- I agree the Recordings may take the form of photographs, handwritten notes, digital files, and/or any other media.
- I grant to the Societies project and its researchers, the right to use the (anonymised) Recordings in their modified form for the purpose as outlined below.
- This data will be securely kept for a maximum of 5 years, in its anonymised form, to allow for scientific publication of the aggregated results.

**Why is the data being collected.**

- To collect information on areas of difficulty when potentially using a software system in a real world scenario. ie. Collect end user requirements for a smart space.
- Pictures are being taken to visually remind researchers of given physical situations where areas of potential difficulty occur.
- Data will be collected and anonymised. For example, pictures will have faces blurred, and any personal identifying data/information will be removed or obscured.
- The aggregate data will be used to generate persona's (fictitious people) with certain traits and/or preferences, as typical users of a software system and/or environment.

**Opt-in / out clause:**

- The participant may opt-out of any further contact from the project at any time, without any penalty, once notification is received by the Societies project.
- By adding my email address in the field below, I authorise the Societies project to contact me periodically in future to ascertain how my attitudes have changed or collect further suggestions I may make.

Email address for further contact: ________________________________

E-mail address (joeblogs@example.com) ____________________________

Signature of participant ___________________ Date ___________________
Glossary

C

Community
It's used to describe the collection of participants with common interests or purpose. It is defined as follows:

"a social, religious, occupational, or other group, sharing common characteristics or interests and perceived or perceiving itself as distinct in some respect from the larger society"

Community Context
A set of context information derived from a group of end-users or their devices in a specific Community. This data set is dynamically formed from in-range CSSs, individual privacy settings, filtered and combined using conflict resolution techniques and context inheritance mechanisms. (see also Context)

Community Interaction Space
It's a representation of a Pervasive Community and has one or more CSS associated with it. It includes:
• a unique identity, name and description.
• membership criteria (can be empty for open/public communities)
• a set of one or more administrating CSSs.
• a dynamic membership list of member CSSs.
• a set of shared services/resources.
• optional community centric information such as preferences, intent models, context, etc.

Community Orchestration
The ability to help users manage the intelligent identification, formation, organisation, membership and termination of communities. This ability is based on end-user supplied rules for community life-cycle management and community membership and associated context information.

Community Preferences
A stereotypical set of preferences or template, for a whole community, based on the preferences of individual community members. (see also Preference)

Company
A legal entity with a common identity and affiliation eg. group of employees.

Consent
In data protection terminology, consent refers to any freely given, specific and informed indication of the wishes of a data subject, by which he/she agrees to personal data relating to him/her being processed (see Article 2 sub (h) of Data Protection Directive 95/46/EC and Article 2 sub (h) of Regulation (EC) No 45/2001.

Context
Context is any information that can be used to characterize the situation of an entity. An entity is a person, place, or object that is considered relevant to the interaction between a user and an application, including the user and applications themselves.

Context management
Context management includes the distributed context maintenance, access, update and synchronisation, as well as, the provision of a transparent interface to context handling, support of ad-hoc context exchange, real-time and non-real-time context handling.

Cooperating Smart Space
A CSS represents a single participant (user or organisation), and includes their information, and services within a distributed collection of CSS Nodes. It provides both a pervasive capability and a social networking capability in an integrated form. A CSS can be associated to zero or more Community Interaction Spaces (CIS), which are a representation of multi-participant community. A CSS can interact, communicate, or share directly with another CSS, not mediated by a CIS.
Crowd computing
Crowd computing is an overarching term that defines the plethora of human interaction tools that enable idea sharing, non-hierarchical decision making and the full utilisation of the world's mind space.

Developer
Developer can be specialised further depending on the type of service e.g. see Third Party Service.

Disaster management
Disaster management is a process or strategy that is implemented when any type of catastrophic event takes place. Sometimes referred to as disaster recovery management, the process may be initiated when anything threatens to disrupt normal operations or puts the lives of human beings at risk. Governments on all levels, as well as, many businesses create some sort of disaster plan that make it possible to overcome the catastrophe and return to normal function as quickly as possible.

End User
End-user who has CSS related technology installed on their devices and use SOCIETIES and its services to interact with others via CIS's or CSS's directly. An end user can be specialised further for a particular domain (eg. see Relief worker).

Learning
Learning is acquiring new knowledge, behaviours, skills, values, preferences or understanding, and may involve synthesising different types of information. In computer science, it refers to the computer systems' ability to evolve behaviours based on empirical data, such as from sensor data or databases.

Location (physical)
A specific instance of dynamically derived context information that defines the physical whereabouts of the corresponding entity.

Organisation
A legal entity or group of people with a common identity and defined purpose.

Personalisation
Personalisation is the set of processes that adapt the behaviour of a system so it appears differently to different users or to the same user in different contexts. By "appears" we mean more than just the colour of the screen but the way in which the system reacts to the user. This includes the services it selects, chosen devices, how services are manipulated at runtime and any automatic triggering it may do on the user's behalf.

Pervasive community
A pervasive community is a group of, two or more, individuals who have agreed to share some, but not necessarily all, of their pervasive resources, personal information, context data, services, devices with other members of that community. A pervasive community, once constituted, forms a Community Interaction Space (CIS). There is a one-to-one mapping between pervasive communities and CISs.

Individuals may belong to any number of pervasive communities, and thus CISs, simultaneously. Individuals may also, of course, interact with other individuals without using CSSs by employing more traditional mechanisms. The individual members of a pervasive community do not need to be human beings. They can also be organisations, smart space infrastructures, autonomous or semi-autonomous agents, etc.
Preference

Preference could be conceived of as an individual's attitude towards a set of objects, typically reflected in an explicit decision-making process. Alternatively, one could interpret the term "preference" to mean evaluative judgement in the sense of liking or disliking an object which is the most typical definition employed in psychology. However, it does not mean that a preference is necessarily stable over time. Preference can be notably modified by decision-making processes, such as choices, even in an unconscious way.

Privacy

Privacy is the ability of an individual or group to seclude themselves or information about themselves and thereby reveal themselves selectively. In computer science, privacy concerns exist wherever uniquely identifiable data relating to a person or persons are collected and stored. In some cases, these concerns refer to how data is collected, stored, and associated. In other cases the issue is who is given access to information. Other issues include whether an individual has any ownership rights to data about them, and/or the right to view, verify, and challenge that information.

Social computing

Social computing is a general term for an area of computer science that is concerned with the intersection of social behaviour and computational systems. It is used in the following two ways. In the weaker sense of the term, social computing has to do with supporting any sort of social behaviour in or through computational systems.

In the stronger sense of the term, social computing has to do with supporting "computations" that are carried out by groups of people. Examples of social computing in this sense include collaborative filtering, online auctions, prediction markets, reputation systems, computational social choice, tagging, and verification games.

Third Party Service

An extension or utilisation mechanism that can be used to add applications which interact with, or extend the services of the SOCIETIES platform. These are developed independently from the SOCIETIES platform and may have different licensing conditions. However, they have a technical or functional dependency on the SOCIETIES platform.

Trust

Trust is the firm belief in the competence of an entity to act dependably, securely, and reliably within a specified context.

User

Ambiguous term further qualified as: End User, Developer, Organisation, and Company. See relevant glossary entries

User Intent

The desired purpose, goal or aim of a end users behaviour (set of actions). Combining the user's past actions with context snapshots can permit the discovery of past, and prediction of future end user goals. Within SOCIETIES this is an estimation of the end users true intent, which may never be divulged to the system.