Supporting Collaboration in Small Volunteer Groups with Socio-Technical Guidelines

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Volunteer groups are important for society
Student groups creating a campus AR tour

But what is the Tiger Walk?
Explore it now. The Tiger Walk means...
We go through the columns toward Jesse Hall...
We go from Jesse Hall through the columns...
How could we support them?

Socio-technical design

Principles of job design

Usability heuristics

Volunteer collaboration
Cat1: Reality check

Is there a sufficient compatibility between pursued goals and what can be achieved based on available resources?
Cat2: Suitability of task allocation

Are tasks allocated according to volunteer needs, competencies and interests?
Cat3: Social dynamics

Is the relationship clear between the volunteers and the roles that they take?
Cat4: Proper information exchange and communication tools

Can volunteers decide which tools to use and can they identify which information to share, with whom and when?
Cat5: Balance between effort and benefit, lack of motivation

Do pursued goals fit motivations and interests of volunteers?
Cat6: Feedback and visibility

Is feedback provided about volunteer achievements and do they get sufficient guidance?
10 participants, 8 remained on board
11 months
5 interviews
<table>
<thead>
<tr>
<th>Category</th>
<th>Issue identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat1: Reality check</td>
<td>“GoogleGlass was not feasible without significant funds where we put hundreds of thousands of dollars” (I2)</td>
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<td>Cat2: Suitability of task allocation</td>
<td>I2 had project management skills but “we failed a lot when tracing [our] activities” (I3)</td>
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<td>Cat3: Social dynamics</td>
<td>“pretty organic” (I2) “self-emerging” (I3) “no [explicit] hierarchy” (I1) “too slow” (I4) “Not really really interested and motivated” (I3)</td>
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<td>Category</td>
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<td>Cat4: Proper information exchange and communication tools</td>
<td>GoogleDrive, Box, Samepage were all used at different points “email would be number one” (I4)</td>
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<td>Cat5: Balance between effort and benefit, lack of motivation</td>
<td>“not really really [...] motivated” (I3) “extremely hard working” (I4) “people loose[ing] interest” (I2)</td>
</tr>
<tr>
<td>Cat6: Feedback and visibility</td>
<td>“meeting[s] every week” (I2) but not sufficient feedback “not much really happen[ing] in these meetings” (I2)</td>
</tr>
</tbody>
</table>
- Not all categories are equally important
- Reality check might be required more than once during project (Cat1)
- Differentiate between coordination and other tasks (Cat2)
- Strong interdependency between tasks and social dynamics (Cat3)
- Focus should be on application of tools and not tools as such (Cat4)
- Tasks need to be mainly distributed based on interest rather than skill (Cat5)
- Feedback should focus on feedback between volunteers (Cat6)
Test usefulness for quick assessment

Refine based on additional literature (co-design)

Can volunteers use them themselves?