CEREBRAL PALSY, ONLINE SOCIAL NETWORKS AND CHANGE

VOLUME 2

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Thesis Declaration

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Chapter 7 – Study Five: Questionnaire

7.1 Introduction

The first study, an exploratory interview study (see chapter 3), identified the reasons for OSN use and non-use and key themes including independence, privacy, trust, and change, together with challenges such as slow input speed, poor user interface features, lengthy and complicated tasks, lack of user interface personalization and unavailable or inappropriate within-website help.

As a result of the method a follow-up study, an in-context observational study was carried out (see chapter 4). The study identified the OSNs and AT devices used, tasks carried out and users feelings during interaction. It was determined that changing OSNs prevent and or slows these users ability to communicate online whilst also not being represented adequately within HCI literature (see chapter 2 section 2.4).

To answer research question three and four: how are OSNs deploying change? and how are OSN users experiencing and accepting change?. A two part longitudinal OSN monitoring and analysis study was carried out from 14 September 2010 to 28 February 2011 (see chapter 5). The study identified how OSN changes are introduced, their effect on users, and the factors that encourage OSN change acceptance and non-acceptance. The study investigated a real world example of OSN change by observing the actions of Twitter and users reactions to its change to #NewTwitter. The study also identified five key themes: inappropriate change approach; the inappropriate use of consultation and feedback and users experience, poor information concerning the change and problem solving; lengthy roll out of the new user interface; and the positive use of community champions.

However the findings reflected radical restructuring resulting in the following questions being asked:

- Would OSN users react similarly if a different OSN change process was used?
- Would OSN users react similarly to weak restructuring?
- Do OSN users react differently to change in another OSN? To answer these questions a study that looked at the change approach within another OSN was carried out.
The study investigated the change approach and users reactions to a change on Facebook i.e. improved photo-tagging feature from December 2010 to June 2011 (see chapter 6). The study found that users disliked the Facebook process to change i.e. an automatic opt-in to the new feature causing users to ask for help from the community to opt-out of the new feature. This was attributed to poor information provided by Facebook.

The study also found that users were questioning the need for the change because they felt it would affect their privacy. However it was determined that this was a result of the new feature not the change approach. The study found that users reactions to weak restructuring was not significantly different to the reaction of users that had experienced radical restructuring. However the study did not explicitly identify how OSN users would like to experience change.

To answer research question four: how are OSN users experiencing and accepting change? A questionnaire study that investigated the factors that affect OSN users acceptance of change was carried out in July 2011.

Questionnaires were used because they offer feedback from the point of view of the user. This feedback could be viewed as a trustworthy sample of what can be gathered from the whole user population (Kirakowski, 2000).

Unfortunately the cp community was not distinguishable (or the wider disability community) within the data set. This was attributed to the difficulty in recruitment specifically ‘over’ researching a limited number of available participants. As a result open recruitment was used reflecting all OSN users (similarly to study 3 and 4) to obtain overall insight of users experiences and requirements.

The study received ethical clearance from City University London. As a result a study summary was published in CSUN’12, DIS’12 and TCUK’12 (see appendix c section c.1 and c.6).
This chapter discusses the study background, study questions, method, organization of data and the findings.

### 7.2 Study questions

The study questions addressed were:

1. What types of website change are Internet users experiencing?
2. How do Internet users react to the change approach they have experienced?
3. What influences Internet users to accept the change approach?
4. What do Internet users consider the most important factors that influence their acceptance of change approach?

The study questions were influenced by the previous studies, study one identified that OSN change was an issue for the cp community, study 2 reiterated this and offered examples, whilst study 3 and 4 provided real-world examples of OSN change alongside users reactions. However none of these studies explicitly focused on how OSN users would like to experience OSN change. The purpose of this study was to fill this gap in understanding.

Additionally the study referred to website change rather than OSN change because it aimed to establish internet change in the hopes that OSN change was experienced by the population. In reflection this decision was flawed as it meant the study results did not completely link to the Twitter or Facebook data. Therefore future work would be required to remove this limitation, this is further discussed in section 10.3.

### 7.3 Method

This section discusses the population of concern, data sample, method of selection and organisation of the data.
7.3.1 Recruitment

The study used open recruitment; Adults from all City University London programmes, departments and professions were recruited using posters; recruitment also occurred externally.

7.3.2 Questionnaire design

Participants were asked 13 questions:

- Do you have a disability?
- Do you use any assistive technologies? (For example: screen readers or joystick)
- Have you experienced a website change within the last 6 months? (For example: task structure or interface design). If you answered yes, briefly describe the change you experienced.
- Did you continue to use the website after the change was implemented? If you answered yes, briefly describe why you continued to use the website?
- [Matrix Question] Generally, how significant are the following in influencing your acceptance of a website change? (Very Significant, Significant, Neutral, Insignificant and Very Significant):
  - Knowledge of the change before its implementation
  - Consultation with you before the change is implemented
  - Consultation with you throughout the change
  - Consultation with you after the change is implemented
  - Help and support offered before the change is implemented
  - Help and support offered throughout the change
  - Help and support offered after the change is implemented
  - Opinions of others experiencing the change
- Can you highlight any other factors which are important in influencing your acceptance of a website change?
7.3.3 Protocol

The following protocol was followed:

• Researcher made the questionnaire available to the participant,
• Offline version (see appendix a section a.5.1),
• Online version (see appendix a section a.5.2),
• The participant completed the questionnaire,
• Researcher thanked the participant for participating.

7.3.4 Participants

Forty-one responses were collected. Participants were aged over 18 years old and had diverse backgrounds.

7.3.5 Organisation of data

This section discusses the organisation of the data, it includes data cleaning, creation of categories and statistics.

7.3.5.1 Data cleaning

The online and offline questionnaires were entered into a spreadsheet (see figure 89) (see appendix b section b.5.1 and b.5.2 for sample data).
7.3.5.2 Creation of categories

The closed questions: 1-3, 6 and 9a-9g were exported to statistical analysis software (SPSS version 9) for further analysis. The open questions: 4, 5, 7, 8 and 10 underwent a manual qualitative analysis before being exported to SPSS.

Referring to the GIA each open response was read until categories began to emerge (see figure 97). Initially the lower-level categories were identified followed by the upper-level categories. The latter categories presented a generalised view of each response (see table 26). However only the upper level categories were exported to SPSS for further analysis. The lower level categories were used to enhance the findings.

To further assist the statistical analysis a category codebook was developed. The codebook defined the labelling of each of the categories and was used to export the data to SPSS (see table 27).
Figure 82. Example of primary document table manual analysis
<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OSN</td>
<td>Text units where reference is made to an online social network that has undergone change</td>
</tr>
<tr>
<td>2</td>
<td>Branding</td>
<td>Text units where reference is made to website change specially rebranding</td>
</tr>
<tr>
<td>3</td>
<td>Layout</td>
<td>Text units where reference is made to website layout. This includes architecture and contrast (positive and or negative) as a result of the website change process or required for website change process</td>
</tr>
<tr>
<td>4</td>
<td>Navigation</td>
<td>Text units where reference is made to website navigation structure and or navigation ease of use (positive and or negative) as a result of the website change process or required for website change process</td>
</tr>
<tr>
<td>5</td>
<td>a11y_reduced</td>
<td>Text units where reference is made to accessibility tools and or features, specially reduction (negative) in website accessibility functionality as a result of the website change process</td>
</tr>
<tr>
<td>6</td>
<td>UX_reduced</td>
<td>Text units where reference is made to user experience features, specially reduction (negative) in website usability as a result of the website change process</td>
</tr>
<tr>
<td>7</td>
<td>Other</td>
<td>Text units that are considered off topic</td>
</tr>
<tr>
<td>8</td>
<td>Frustration</td>
<td>Text units where reference is made to frustration, annoyance, dissatisfaction etc. with the website change process</td>
</tr>
<tr>
<td>9</td>
<td>Non_acceptance</td>
<td>Text units where reference is made to change specifically user non acceptance of the process or the changed website</td>
</tr>
<tr>
<td>10</td>
<td>Transitory_Acceptance</td>
<td>Text units where reference is made to change specifically users likes or dislikes the change but has used the changed website for a temporary time because they wanted to try it or they felt the change was going to happen and they felt they should use it. They have since accepted the change.</td>
</tr>
<tr>
<td>11</td>
<td>Suggestion</td>
<td>Text units where reference is made to change specifically offering a suggestion to improve or an alteration regarding the method used</td>
</tr>
<tr>
<td>12</td>
<td>Questioning</td>
<td>Text units where reference is made to change specifically questioning the method and or purpose.</td>
</tr>
<tr>
<td>13</td>
<td>Inclusion</td>
<td>Text units where reference is made to consultation and feedback, user inclusion in the change process</td>
</tr>
<tr>
<td>14</td>
<td>Operability</td>
<td>Text units where reference is made to the user interface or feature problems specifically operability of the changed website for example allowable functions are now harder to use or are not working as expected.</td>
</tr>
<tr>
<td>15</td>
<td>Acceptance_Problem</td>
<td>Text units where reference is made to change acceptance regardless of new problems with the changed website</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance</td>
<td>Text units where reference is made to change specifically user acceptance of the changed website</td>
</tr>
<tr>
<td>17</td>
<td>Layout</td>
<td>Text units where reference is made to the website layout (aesthetics/appearance) for example user dislikes visual appeal or has a problem with the appearance e.g. colour of buttons after the change.</td>
</tr>
<tr>
<td>18</td>
<td>Performance</td>
<td>Text units where reference is made to the change agent after the change specifically response time</td>
</tr>
<tr>
<td>19</td>
<td>UX</td>
<td>Text units where reference is neutrally or generally made to user experience features</td>
</tr>
<tr>
<td>20</td>
<td>Support</td>
<td>Text units where reference is made to support provided by the change agent before, during or after the change</td>
</tr>
<tr>
<td>21</td>
<td>Ease of use</td>
<td>Text units where reference is made to positive factors promoting change acceptance specifically ease of use</td>
</tr>
<tr>
<td>22</td>
<td>General_Improvement</td>
<td>Text units where reference is made to an unnamed improvement of changed website that promotes change acceptance</td>
</tr>
</tbody>
</table>

Table 25 – upper and lower level categories
<table>
<thead>
<tr>
<th>Full variable name</th>
<th>SPSS variable name</th>
<th>Coding instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification number</td>
<td>ID</td>
<td>Number assigned to each questionnaire</td>
</tr>
</tbody>
</table>
| Q1 Do you have a disability | Q1 | 1 = Yes  
2 = No |
| Q2 Do you use any assistive technologies? | Q2 | 1 = Yes  
2 = No |
| Q3 Have you experienced a website change within the last 6 months | Q3 | 1 = Yes  
2 = No |
| Q4 Briefly describe the change you experienced | Q4 | 1 = OSN [1]  
2 = Branding [2]  
3 = Layout [3]  
4 = Navigation [4]  
5 = a11y_reduced [5]  
6 = UX_reduced [6]  
7 = Task  
8 = Operability [14]  
99 = Other [7] |
| Q5 How did you feel about the change you experienced | Q5 | 1 = Frustration [8]  
2 = Non_acceptance [9]  
3 = Transitory_Acceptance [10]  
4 = Suggestion [11]  
5 = Questioning [12]  
6 = Acceptance [13]  
7 = Inclusion [13]  
99 = Other [7] |
| Q6 Did you continue to use the website after the change was implemented | Q6 | 1 = Yes  
2 = No |
| Q7 If you answered yes to Q6 briefly describe why you continued to use the website | Q7 | 1 = Operability [14]  
2 = Acceptance_Problem [15]  
3 = Acceptance [16]  
99 = Other [7] |
| Q8 If you answered no to Q6 briefly describe why you did not continue to use the website | Q8 | 1 = Operability [14]  
2 = Layout [17]  
99 = Other [7] |
| Q9a Knowledge of the change before its implementation | Q9a | 1 = Very significant  
2 = Significant  
3 = Insignificant  
4 = Very Insignificant |
| Q9b Consultation with you before the change is implemented | Q9b | 1 = Very significant  
2 = Significant  
3 = Insignificant  
4 = Very Insignificant |
<table>
<thead>
<tr>
<th>Question</th>
<th>Codebook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q9c Consultation with you throughout the change</td>
<td>Q9c</td>
</tr>
<tr>
<td>Q9d Consultation with you after the change is implemented</td>
<td>Q9d</td>
</tr>
<tr>
<td>Q9e Help and support offered before the change is implemented</td>
<td>Q9e</td>
</tr>
<tr>
<td>Q9f Help and support offered throughout the change</td>
<td>Q9f</td>
</tr>
<tr>
<td>Q9g Help and support offered after the change is implemented</td>
<td>Q9g</td>
</tr>
<tr>
<td>Q9h Opinions of others experiencing the change</td>
<td>Q9h</td>
</tr>
<tr>
<td>Q10 Can you highlight any other factors which are important in influencing our acceptance of a website change?</td>
<td>Q10</td>
</tr>
</tbody>
</table>

Table 26. Codebook
7.3.5.3 Statistics

Considering Pallant (2010) approach to statistical analysis of data, the following protocol was used:

1. Using the codebook (see table 26) the SPSS data file structure was set up,
2. Using the codebook the text data was reformatted to numerical data and imported to SPSS,
3. Using the spreadsheet (see figure 96) the data was screened for errors and appropriate corrections were made,
4. The data was explored:
   - Descriptive statistics were generated, these included frequencies and percentage, means, 95% confidence interval for mean, 5% trimmed mean, median, variance, standard deviation, minimum and maximum,
   - The descriptive statistics were displayed using tables, histograms, box plots and normal Q-Q plots,
5. It was determined that the data represented two groups: respondents whom reported having a disability and those without a disability. Comparison histograms were used to present this.

7.4 Findings

Total responses were 41, 38 online, 3 offline, 30 reported not having a disability whilst 11 reported having a disability (see appendix b section b.5.1 and b.5.2 for data sample). The following sections will look at the responses in more detail to answer the study questions.

7.4.1 Change experience

The study found that 22 of 39 respondents reported that they had experienced a website change (see figure 98a). They reported that the website layout was the key form of change they had experienced (9) followed by the website tasks (5) and functionality (5 (see figure 98b). One respondent described:

**Example 1:** “Complete redesign and rebranding. Very confusing. The design was overbearing and eroded the navigation. Deceased a11y and UX”.

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City University London, Centre for HCI Design
The study found that 23 of 39 respondents confirmed that they had experienced OSNs change, specifically within Facebook and Twitter. Two respondents described:

**Example 2:** “Change in Facebook and Twitter mean my larger settings don’t work anymore”.

**Example 3:** “Twitter and Facebook have both changed their layouts and how certain aspects of the profiles look and work. Pictures for example, pop up in their own window and instructions on editing the pictures are in a different place on the page”.

Furthermore the study found that 3 out of the 23 respondents referred to #NewTwitter and Facebook’s new automated photo-tagging feature. Two respondents described:

**Example 4:** “Twitter introduced their new, single page site”

**Example 5:** “Facebook added some features to my account that I was not aware of, such as face recognition software”

The respondents were also asked to define how they felt about the website change (see figure 98c). 5 feeling frustrated. Two respondents described:

**Example 6:** “extremely frustrated”.

**Example 7:** “Like being slapped – can cope with changes to sites but when it is radical enough to lock you out and it was a useful resource before it is telling me we don’t want your kind, you are not our kind of customer”.

The study found that frustration resulted in acceptance (2), transitory acceptance (2), non-acceptance (2) or questioning (2). Two respondents described:

**Example 8:** “It took a while to get used to the new options but the changes made the website simpler to use”.

**Example 9:** “I didn’t care for it, and it seemed arbitrary”.

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City University London, Centre for HCI Design
Furthermore the study found that respondents that indicated having a disability found changing websites frustrating resulting in non-acceptance or transitory-acceptance. This was similar to respondents without a disability (see figure 99).

**Figure 83.** Questionnaire statistics: overall change experience
7.4.2 Change acceptance

The study found that 22 of 39 respondents that had experienced a website change reported continued use of the website after the change (see figure 100a). This was due to the operability and purpose of the website was not significantly altered after the change (see figure 100b). Two respondents described:

**Example 9:** “the changes did not significantly change the overall idea of the website”

**Example 10:** “the core proposition was still interesting to me”

The study also found that respondents that reported a disability who ceased using the website after a change did so because the operability and purpose had significantly changed (see figure 100bc). One respondent described:
Example 10: “the new site was less intuitive and I would have needed to “learn” how to use the new site, which was not acceptable”.

**Figure 84.** a-c) questionnaire statistics: overall change acceptance; b) Comparison histogram exploring change non-acceptance between respondents with and without disability
7.4.3 Change influences

Twenty-three responses were collected that focused on how significant knowledge, consultation, help and support and opinions of others affected change acceptance. The following sections will discuss this in more detail.

7.4.3.1 Knowledge

The study found that 22 reported that knowledge from the change agent before a website change is very significant (see figure 101ab).

![Figure 85. Questionnaire statistics: knowledge before the change implementation]

7.4.3.2 Consultation

The study found that 11 respondents reported that consultation before a website change implementation is insignificant (see figure 102ab).

However respondents ($n = 5$) whom reported having a disability expressed prior consultation was significant.
Furthermore the study found that 9 respondents reported that consultation throughout a website change deployment was insignificant. However, 8 respondents reported it was significant (see figure 103a). The statistical data has revealed equivalence between significances.

Cumulatively, 12 reported either very significant or significant compared to 12 reported either insignificant or very significant (see figure 103a). This can be seen as inconclusive via mean (2.27) and trimmed-mean (2.26) who had expressed significant for consultation throughout a website change deployment (see figure 103ab).

Figure 86. Questionnaire statistics: consultation before the change implementation

Figure 87. Questionnaire statistics: consultation throughout the change implementation
Furthermore the study found that few respondents opted for very significant \( (n=5) \), insignificant \( (n=4) \) or very insignificant \( (n=0) \). These respondents were identified as outliners (see figure 104b). However using a 5% trimmed mean of 1.96 it was determined that users consider consultation after a website change implementation as significant.

7.4.3.3 Help and support

The study found that 11 respondents reported that consultation before a website change deployment is ‘significant’ (see figure 105ab).
Additionally the study found that 10 respondents reported that help and support throughout a website change deployment was ‘significant’ (see figure 106ab).

The study also found that the majority (n = 4) of respondents whom reported having a disability and answered this question expressed help and support throughout as being highly significant (see figure 106c).

Figure 90. ab) Questionnaire statistics: consultation throughout the change implementation c) Comparison histogram exploring change non-acceptance between respondents with and without disability

Furthermore the study found that 9 respondents reported that help and support after a website change implementation was very significant (see figure 16ab). This finding was echoed among those whom
reported having a disability \((n = 4)\) whilst the majority of those whom reported not having a disability \((n = 7)\) reported significant (see figure 16c).

**Figure 91.** ab) Questionnaire statistics: consultation after the change implementation c) Comparison histogram exploring change non-acceptance between respondents with and without disability.
7.4.3.1 Opinions of others

The study found that 10 respondents reported that the opinions of others effected by the change process was insignificant in their acceptance (see figure 107ab). However the study found that respondents that reported having a disability reported it as significant (see figure 107c).

Figure 92. a-b) Questionnaire statistics: opinions of others during the change implementation c) Comparison histogram exploring change non-acceptance between respondents with and without disability.

7.4.3.5 Other factors

The respondents were also asked for a list of other factors that influences their acceptance of a change. Fourteen responses were obtained (see figure 109a).
The study found that 4.9% of respondents reported that website performance, web user interface layout, inclusion by change agent and general website improvements were positive factors that influenced change acceptance. Two respondents described:

Example 11: “how much it saves time or improves the performance of the service”

Example 12: “letting me know that there are changes when I launch a website for the first time (since a change) is always helpful”

Additionally the study found that one respondent reported that the user experience, support offered and operability and the ease of use during the change were also important. One respondent described:

Example 11: “as long as they have some sort of tutoring program after the changes are made, I’m happy. Changes are confusing at times and makes it difficult to manoeuvre the website”.

Finally the study found that respondents whom indicated having a disability found website layout and inclusion by the change agent as the only important factors for website acceptance (see figure 109b).

Figure 93. a) questionnaire statistics: other factors; b) Comparison histogram exploring change non-acceptance between respondents with and without disability
7.4.4 Discussion

The final questionnaire study investigated the factors that affect OSN users acceptance of change. The study was influenced by the previous studies: study one identified that OSN change was an issue for the cp community, study 2 reiterated this and offered examples, whilst study 3 and 4 provided real-world examples of OSN change alongside users reactions. However none of these studies explicitly focused on how OSN users would like to experience change. The purpose of this study was to fill this gap in understanding.

The study used open recruitment; Adults from all City University London programmes, departments and professions were recruited using posters; recruitment also occurred externally. Forty-one responses were gathered. Participants were aged over 18 years and had diverse backgrounds. The following questions were addressed:

1. What website changes are Internet users experiencing?
2. How significant is knowledge of the change before it is implemented?
3. How significant is consultation before, during and after the change is implemented?
4. How significant is help and support offered before, during and after the change is implemented?
5. Does the opinions of others experiencing the change influence users acceptance of a website change?

The study found that respondents had experienced website change (n=23) and 84% of them continued to use the website after the change was deployed. Additionally the study identified three key factors that influence change acceptance:

1. Knowledge of the change was reported as ‘very significant’ or ‘significant’,
2. Consultation throughout and after the change was reported as both ‘very significant’ and ‘significant’,
3. Help and support before, throughout and after was reported as ‘significant’.
The study also provided further insight into the factors that encourage change acceptance. The study found that website performance and user interface, inclusion by the change agent and general website improvements were positive factors that influenced change acceptance.

### 7.4.4.1 Strengths

Studies three and four investigated how an OSN change is deployed, its effect on users, and the factors that encourage change acceptance and non-acceptance in both a radical and weak restructuring setting. However the studies did not explicitly identify how OSN users would like to experience change. The fifth study, a questionnaire, filled this gap in understanding by identifying the factors that affect OSN users acceptance of change. Thus the findings from this study has been viewed as highly valuable.

Therefore the results from the study have further filled the gap in previous HCI research. Whilst also further answering the latter part of research question four: How are online social network users experiencing and accepting change?

### 7.4.4.2 Weaknesses

The study presented two key weaknesses:

1. The study referred to website change rather than OSN change because it aimed to establish internet change in the hopes that OSN change was experienced by the population. In reflection this decision was flawed as it meant the study results did not completely link to the Twitter or Facebook studies (see chapter 10 section 10.2 and 10.4 for future work that could overcome this limitation).

2. The study identify OSN users with cp due to recruitment issues and a concern of over researching i.e. approaching participants from study one and two. These limitations meant that the study was very broad and a prime opportunity to gather final insights from the cp community was missed (see chapter 10 section 10.2 for future work that could overcome this limitation).
Though studies one to five have successfully answered research questions one to four (see chapter 1 section 1.4) whilst also putting forward two methodological contributions:

1. A unique way of displaying OSN change and user acceptance via an infographic,
2. An inductive category model to examine OSN change.

The studies have not answered research question five: How can online social networks change deployment approach be improved to better facilitate users with cerebral palsy? Chapter 9 will answer this research question.
Chapter 8 – Five-stage process for online social network change

9.1 Introduction

The first study, an exploratory interview study (see chapter 3), identified the reasons for OSN use and non-use and key themes including independence, privacy, trust, and change, together with challenges such as slow input speed, poor user interface features, lengthy and complicated tasks, lack of user interface personalization and unavailable or inappropriate within-website help.

As a result of the method a follow-up study, an in-context observational study was carried out (see chapter 4). The study identified the OSNs and AT devices used, tasks carried out and users feelings during interaction. It was determined that changing OSNs prevent and or slows these users ability to communicate online whilst also not being represented adequately within HCI literature (see chapter 2 section 2.4).

To answer research question three and four: how are OSNs deploying change? and how are OSN users experiencing and accepting change?. A two part longitudinal OSN monitoring and analysis study was carried out from 14 September 2010 to 28 February 2011 (see chapter 5). The study identified how OSN changes are introduced, their effect on users, and the factors that encourage OSN change acceptance and non-acceptance. The study investigated a real world example of OSN change by observing the actions of Twitter and users reactions to its change to #NewTwitter. The study also identified five key themes: inappropriate change approach; the inappropriate use of consultation and feedback and users experience, poor information concerning the change and problem solving; lengthy roll out of the new user interface; and the positive use of community champions.

However the findings reflected radical restructuring resulting in the following questions being asked: Would OSN users react similarly if a different OSN change process was used? Would OSN users react similarly to weak restructuring? Do OSN users react differently to change in another OSN? To answer these questions a study that looked at the change approach within another OSN was carried out.
The study investigated the change approach and users reactions to a change on Facebook i.e. improved photo-tagging feature from December 2010 to June 2011 (see chapter 6). The study found that users disliked the Facebook process to change i.e. an automatic opt-in to the new feature causing users to ask for help from the community to opt-out of the new feature. This was attributed to poor information provided by Facebook.

The study also found that users were questioning the need for the change because they felt it would affect their privacy. However it was determined that this was a result of the new feature not the change approach. The study found that users reactions to weak restructuring was not significantly different to the reaction of users that had experienced radical restructuring. However the study did not explicitly identify how OSN users would like to experience change. To fill this gap in understanding a questionnaire study that investigated the factors that affect OSN users acceptance of change was carried out in July 2011.

The study found that respondents had experienced website change \((n=23)\) and 84\% of them continued to use the website after the change was deployed. Additionally the study identified three key factors that influence change acceptance: Knowledge of the change was reported as ‘very significant’ or ‘significant’, consultation throughout and after the change was reported as ‘very significant’ or ‘significant’, help and support before, throughout and after was reported as ‘significant’. The study also provided further insight into the factors that encourage change acceptance. The study found that website performance and the user interface, inclusion by the change agent and general website improvements were positive factors that influenced change acceptance.

Through distilling the findings from the five studies together with the change theories and approaches identified in the literature review (see chapter 2 section 2.4), this PhD research puts forward a process for OSN change for change agents to follow. The process gained publication in TCUK’12, DIS’12 and CSUN’12 (see appendix c section c.1 and c.6). This chapter will introduce the five-stage process and discuss each stage in detail.
9.2 Method

9.2.1 Findings narrative

To develop the process for OSN change for change agents to follow a findings narrative was initially developed. To do this the key findings from each study were laid out (see figure 110) and data relationships (similarities between the different studies) were identified. For example study one and two related to cp, OSNs and change were grouped together, followed by study three, four and five. The narrative provided a high-level glimpse at the overall data set and allowed for positive and negative OSN issues to be viewed across the studies.

The key issues from the studies were highlighted, for example study one and two identified that OSNs prevent and or slows adults with cp ability to communicate online and that unavailable or inappropriate within-website help is a key issue. Whilst study three, four and five identified that OSN provide inadequate information concerning an OSN change.
9.2.2 Timeline

It was identified that a lot of the key findings, specifically issues, within studies three, four and five were presented expressed within the user feelings chart created in part two of the third study, therefore this was revisited (see chapter 5 section 5.3.1.3 and figure 89). The chart showed Twitter users reactions specifically their feelings during the change from the old user interface to the new user interface (#NewTwitter). The user feelings chart specifically showed a summary of Twitter users feelings during each interval. However the chart did not illustrate the root cause of these reactions. As a result the timeline developed during part one of study three was consulted (see chapter 5 section 5.2.1 and figure 59). The timeline showed Twitter’s activities and media responses and provided an external view of the change process.

Additionally the Twitter change map was also consulted (see chapter 5 section 5.2.4 and figure 60). The map considered Twitter’s actions before, during and after the change whilst also taking into account the change theories and approaches discussed in chapter 2 section 2.4. As a result Twitter’s timeline and change map was incorporated into the user feelings chart (see figure 111).
The user feelings chart represented a large quantity of text units \((n = 2400\) tweets from the event sampling study), therefore it was deemed appropriate to act as a baseline for the potential change process.

### 9.2.1.1 Timeline breakdown

The negative reactions associated with Twitter’s change approach were identified within the adapted user feelings chart (see figure 112 highlighted in red). These actions were confused, frustrated, discontented, forced and prevented. For example during the sixteenth interval, 22 February 2010, users were unable to access #NewTwitter due to user interface problems (see chapter 5 section 5.3.4.2.14 and Twitter example 36). Therefore these negative user reactions were removed from the timeline (see figure 113).
Figure 96. Adapted user feelings chart highlighting negative user reactions
The removal of the negative user reactions produced a gap within the timeline (see figure 113). This gap was omitted to depict an existence where negative reactions did not occur. To do this the infographic was consulted (see chapter 5 section 5.3.4.1). For example Twitter users were ‘confused’
about the purpose of #NewTwitter during the first interval, 14 September 2010, (see chapter 5 section 5.3.4.2.1). This was due to the roll out approach: 10% of tweets asked who had it, 6% of tweets asked when they would get it and 10% of tweets were asking other Twitter users how they could get it.

Through revisiting the full data sample collected using TwapperKeeper.com (see chapter 5 section 5.2.7.1) it was identified that Twitter users confusion (as discussed in the previous example) lasted for four days, therefore four days were removed from the Twitter timeline.

As a result it was determined that if the negative user reactions did not occur Twitter’s change process could be reduced from 6 months to under 3 months: 14 September to 1 December 2010 (see figure 114).

Additionally the theories and approaches identified within the change map were adjusted to meet this new shorter timeline (see figure 114).
As a result a user feeling chart that depicted an ideal situation for Twitter’s change approach was developed (see figure 115).
The adapted user feelings chart required further refinement. Initially the change theories and approaches identified within study 3, Lewin (1951), Lippit (1958) steps 1 to 4 and Ohlsson (2009), were extracted and mapped together to represent an appropriate approach to change (see figure 116). This mapping was based on the adapted user feelings chart and the Twitter change map (see section...
5.2.2). Additionally the key findings from study five: involvement, knowledge, support and evaluation before, during and or after the change (see chapter 7), were also incorporated.

![Diagram](image)

**Figure 100.** Iteration 1: Process for OSN Change

### 9.2.1.2 Iteration

Figure 116 (iteration 1) provided a baseline structure for the potential process for OSN change, however it did not fully encompass the findings from study one to five, thus further iterations were required. To do this a whiteboard was used, initially iteration 1 (see figure 116) was drawn on the whiteboard. The findings narrative was then revisited (see section 9.2.1) and the key positive and negative findings identified were added to iteration 1 (see figure 117 image 1). For example study three identified that Twitter change champions (fellow yet popular OSN users) influenced change acceptance as they encouraged OSN rediscovery (see chapter 5 section 5.3.3.2.4). Sequentially each study (alongside the change literature) was revisited were more in-depth findings were added. As a result five separate ‘stages’ were identified: before, 1, 2, 3 and after (see figure 17 image 2). This process was repeated until all relevant findings were incorporated, thus refining the process (see section 9.3.2 for further details on incorporated findings). In total the process went through seven iterations. (see figures 116 to 119).
Figure 101. Iteration 2-3: Process for OSN Change
Figure 102. Iteration 4-5: Process for OSN Change
Cerebral palsy, online social networks and change.

Figure 103. Iteration 6-7: Process for OSN Change
9.3 Five-stage process for OSN change

As a result of the iteration this PhD research puts forward a five-stage process for OSN change, that takes into account the OSN change agent’s responsibilities before, during and after the change (see figure 120). An illustration has been provided that shows this process. For example, stage one “before” requires knowledge that outlines what, why, when and how the change will be introduced to OSN users. This illustration is followed by a description of each stage.

Figure 104. Five-stage process for OSN change.
9.3.2 Five Stages

The OSN change process was divided into five stages:

9.3.2.1 Before

“It is recommended that before an OSN change starts knowledge of the change should be delivered to OSN users. This knowledge should include answers to the following questions: What is the change? Why is the change occurring? When will the change occur? How will users receive the change?” (see figure 120).

It has been identified that knowledge before an OSN change is important. Study one found that changing OSNs often caused adults with CP to be taken by surprise (see chapter 3 section 3.4). For example one participant described:

Example 13:

“INTERVIEWEE: ok like when they first changed Facebook I really didn’t like it when they first changed it from the old one to the new one I really didn’t like it because it threw me”

Whilst study two found that changing OSNs often caused stress to adults with CP (see chapter 3 section 4.5). This often resulted in intervention from a support individual (see section 4.4.3 and figure 40). For example two participants described:

Example 7: “I couldn’t find the log out button, it was over there before [participant points to user interface] that's stupid”

Example 9: [Observation session] “It’s changed... Where is the log out it used to be here [participant points to user interface] it’s not that can you see it? [participant looks at researcher] it was there what should I do [participant looks at researcher] will my information
be safe if I close the page? [participant looks at researcher] I am worried, I should turn the
computer off to make sure [participant turns off the computer]"

Additionally studies three and four found that the information provided before a OSN change is
inappropriate (see chapter 5 and chapter 6). Study three found that poor information was provided by
Twitter. This caused users to misunderstand the new user interface (#NewTwitter) (see chapter 5
section 5.3.4.2).

Whilst study four found that the information provided by Facebook throughout the change process
was poor. Specifically during January 2011, one month after the automated photo-tagging feature was
launched, users were asking what it was, when they would get it, and how they could have access to it.
This resulted in users looking for help from other Facebook users (see chapter 6 section 6.6.2).

Furthermore the fifth study found that knowledge of the change before the OSN change starts was
‘very significant’ and ‘significant’ (see chapter 7 section 7.4.3.1).

Additionally change literature, specifically knowledge-as-theory, states for successful change to occur
the conception must be intelligible, plausible and fruitful (Ozdemir, 2007) (see chapter 2 section
2.6.3.2). Thus providing information that highlights this OSN users could take a positive viewpoint of
the change.

Additionally Woodward and Hendry (2004) identified that individuals are continually evaluating the
change process i.e. What will I gain? What will I lose? What are the potential benefits or harm to me?
Is what is happening irrelevant, can I ignore it? What can I do to overcome or prevent the negative
effects? What can I do to improve my prospects for benefitting from change? What coping options
might be worth adopting? What are the likely consequences? (see chapter 2 section 2.6.7). Therefore it
is recommended that before an OSN change is deployed knowledge of the change should be delivered
to OSN users, this should include answers to: What is the change? Why is the change occurring?
When will the change occur? How will users receive the change?
9.3.2.2 Unfreeze

“It is recommended that roll out of the new user interface to all OSN users take a maximum of 2-weeks. It was evident that lengthy roll-outs caused frustration resulting in non-acceptance of the OSN change. The type of roll out has been left to the discretion of the change agent. However it is recommended that the change be opt-in not opt-out. Furthermore it is recommended that help and support be offered. This should include the purpose of the change, when and how users will receive the change and support for problem solving” (see figure 120).

As stated by Lewin (1958) the purpose of this stage is to ‘unfreeze’ the existing situation to overcome the strains of individual resistance and group conformity (Kritsonis, 2004) (see chapter 2 section 2.6.5.1). To do this, it was identified that shorter roll outs of OSN change is important. Study three found that Twitter’s lengthy roll out of the new user interface was frustrating. During the early stages of roll out, tweet sentiments were positive (54%) as a result of initial user excitement. However as the roll out continued this decreased to 13%, and was attributed to users misunderstanding the purpose of #NewTwitter and its lengthy roll out (see chapter 5 section 5.2.6).

Additionally Prochaska and DiClemente (1982) stage three ‘preparation’ of change theory states that an individual is ready to change their behavior and plans to do so within two weeks (see chapter 2 section 2.6.5.4.5). Therefore, it is recommended that the roll out of the new user interface to all OSN users take a maximum of two weeks.

Furthermore study four found that Facebook users disliked the change process. They were unhappy about the default opt-out procedure (see chapter 6 section 6.6.2). Therefore, it is recommended that the change process be opt-in not opt-out. However, the type of roll out has been left to the discretion of the change agent.

Furthermore it has been identified that help and support for problem solving and information within the unfreeze stage is important. Study three found that most of #NewTwitter mentions were negative ($n=1058$ compared to positive, neutral, spam sentiments ($n=537, n=302, n=503$)). This was attributed to excessive problems with the new user interface. As a result users refused to try the new
user interface or went back to the old user interface. Whereas study five found that help and support throughout was ‘significant’ (see chapter 7 section 7.4.3.3). Additionally Lippit (1958) suggested that the change agent should maintain communication (Kritsonis, 2004) (see chapter 2 section 2.6.5.2). Therefore it is recommended that help and support be offered. This should include the purpose of the change, when and how users will receive the change and support for problem-solving.

9.3.2.3 Persuade

“It is recommended that an overlap of the old user interface and new user interface is offered. This will allow users to gradually gain confidence. It is also recommended that consultation and feedback be offered as this allows OSN users to ask questions and give opinions. Furthermore it is recommended that community champions be frequently used to encourage users to revisit the new user interface.

Additionally information should be provided that includes user interface updates, problem solving, impending refreeze (stage 4) updates and links to feedback and resources that encourage users to revisit the new user interface. Towards the end of this stage it is recommended that the change agent engage with non accepters to respond to concerns and boost confidence” (see figure 120).

As stated by Lewin (1958) the purpose of this stage is to ‘persuade’ those affected by the change to agree that the existing solution is not beneficial to them and encourage them to view the problem from a fresh perspective (Kritsonis, 2004) (see chapter 2 section 2.6.5.1). This was further echoed by Chinn and Samarapungavan (2009) who suggested change agents should promote a belief in the new conception and understanding of why the change should occur (see chapter 2 section 2.6.3.3). Furthermore Ohlsson (2009) suggests that:

“Analogical transfer [transferring of a basic structure acquired through one or more instances to another instance (Klauer, 1989)] to map conceptual system B from one domain to new domain (domain A) to which it had not previously been applied, and to which conceptual system A had been predominant. When said individual realizes that conceptual system B can be applied to domain A, the
individual now has two alternative ways of conceptualizing domain A – either conceptual system A or B. Through competitive evaluation of the cognitive utility of the two conceptual systems, the individual eventually settles on one or the other as the favored conceptual system” (Chinn and Samarapungavan, 2009:51) (see chapter 2 section 2.6.3.3).

An example of this can be seen in the third study. From 7 October 2010 to 28 February 2011 the old user interface and new user interface were available. However, during the six peak, Twitter altered the welcoming message. The new message stated that the old user interface was being removed, though neither a date or time was provided (see chapter 5 section 5.2.6.1.4 and Figure 71). This resulted in users tweeting their concerns about the impending refreeze (Lewin, 1952). Therefore it is recommended that an overlap of the old user interface and new user interface be provided.

It has also been identified that consultation and feedback is important. The fourth study found that after roll out Facebook users were seeking help from the Facebook community. However there were instances were users asked Facebook directly, though these comments were left unanswered (see chapter 5 section 5.3.4.2). Additionally poor feedback was also evident within study three. Twitter users were repeatedly asking for problem updates that were left unanswered. However the study found that users responded positively to consultation during the later stage of roll out, where Twitter asked for opinions using a questionnaire (see chapter 5 section 5.3.4.2). Whereas study five found that consultation throughout the change was ‘very significant’ and ‘significant’ (see chapter 7 section 7.4.3).

Furthermore Lippit (1958) suggests that change agents should maintain feedback (Kritsonis, 2004) (see chapter 2 section 2.6.5.2). Whilst Holbeche (2006) stated “an individual can influence change behavior as much as behavior shapes change itself” (see chapter 2 section 2.6.3.5). Therefore engaging with those effected by the change is important. Therefore it is recommended that consultation and feedback that allows OSN users to ask questions and give opinions concerning the change process is provided.
Additionally it was identified that change agents should engage with individuals that were not accepting the change. The third study found that change champions, fellow yet popular OSN users, were used to reduce negative user reactions. For example Twitter endorsed a descriptive video produced by popular international musicians. As a result positive sentiments temporarily increased (see chapter 5 section 5.2.6). Therefore it is recommended that community champions be frequently used.

Finally it has been identified that appropriate information concerning user interface updates, problem-solving and the impending refreeze (stage 4) should be provided. Study five found that help and support throughout the change is ‘significant’ (see chapter 7 section 7.4.3.3). This requirement was also discussed by Lippit (1958) that states that the change agent should maintain communication (Kritsonis, 2004) (see chapter 2 section 2.6.5.2). Therefore it is recommended that help and support be offered. This should include updates that concern the new user interface, problem solving and the refreeze (stage 4).

9.3.2.4 Refreeze

“It is recommended that community champions be used to encourage users to revisit the new user interface and offer positive support. It is also recommended that this stage occur to all OSN users within one day to avoid confusion. Finally it is recommended that feedback, help and support should be provided.” (see figure 120).

As stated by Lewin (1958) the purpose of this stage is to ‘refreeze’ the new situation to stabilize the equilibrium resulting from the change (Kritsonis, 2004) (see chapter 2 section 2.6.5.1). To do this it has been identified that change champions are important (see stage 3). Furthermore study five found that consultation after the change was ‘very significant’ and ‘significant’ (see chapter 7 section 7.4.3.2). Therefore it is recommended that community champions are frequently used.

It has also been identified that the length of the refreeze was important. The third study found that the lengthy roll out of the new user interface and the repetitive reminders of the removal of the old user
interface were frustrating and confusing to users (see chapter 5 section 5.2.6.2.1). Therefore it is recommended that the refreeze should occur within 24 hours.

Finally it has been identified that feedback and support is important (see stage 3). Study five found that help and support after the change was ‘very significant’ (see chapter 7 section 7.4.3.3). Therefore it is recommended that during the refreeze feedback, help and support should be provided.

9.3.2.5 After

“It is recommended that after an OSN change process an evaluation should occur. The change agent should consult with users after stage 4 (refreeze) to identify issues with the new user interface and or the change approach. This will aid future changes and ensure users opinions are heard. It is also recommended that help and support be provided until the next change begins.” (see figure 120).

It has been identified that change agent’s evaluation is important. Study four found that consultation after the change was ‘very significant’ and ‘significant’ (see chapter 7 section 7.4.3.2). Therefore it is recommended that after an OSN change an evaluation should occur. The change agent should consult with users after stage 4. This will aid future changes and ensure users opinions are heard.

Finally it has been identified that help and support is important (see stage 3). Study five found that help and support after the change was reported as ‘very significant’ (see chapter 7 section 7.4.3.3). Therefore it is recommended that help and support be provided until the next change begins.

9.4. Discussion

Through distilling the findings from the five studies (see chapters 3 to 7) together with the change theories and approaches identified in the literature review (see chapter 2 section 2.4), this PhD research puts forward a process for OSN change for change agents to follow.
To develop the process a findings narrative was initially developed. To do this the key findings from each study were laid out and data relationships (similarities between the different studies) were identified. The key issues from the studies were highlighted, for example study one and two identified that OSNs prevent and or slows adults with cp ability to communicate online and that unavailable or inappropriate within-website help is a key issue.

Furthermore it was discovered that a lot of the key findings, specifically issues, within studies three, four and five were presented expressed within the user feelings chart created in part two of the third study, therefore this was revisited. The chart showed Twitter users reactions specifically their feelings during the change from the old user interface to the new user interface (#NewTwitter). However the chart did not illustrate the root cause of these reactions. As a result the timeline developed during part one of study three was consulted. The timeline showed Twitter’s activities and media responses and provided an external view of the change process. Additionally the Twitter’s change map was also consulted. The map considered Twitter’s actions before, during and after the change whilst also taking into account the change theories and approaches discussed in chapter 2 section 2.4. As a result Twitter’s timeline and change map was incorporated into the user feelings chart.

The negative reactions associated with Twitter’s change approach were identified within the adapted user feelings chart. These actions were confused, frustrated, discontented, forced and prevented. Therefore these negative user reactions were removed from the timeline, this removal produced a gap within the timeline. This gap was omitted to depict an existence where negative reactions did not occur. As a result it was determined that if the negative user reactions did not occur Twitter’s change process could be reduced from 6 months to under 3 months: 14 September to 1 December 2010. As a result a user feeling chart that depicted an ideal situation for Twitter’s change approach was developed.

The adapted user feelings chart required further refinement. Initially the change theories and approaches identified within study 3, Lewin (1951), Lippit (1958) steps 1 to 4 and Ohlsson (2009), were extracted and mapped together to represent an appropriate approach to change. This mapping was based on the adapted user feelings chart and the Twitter change map. Additionally the key
findings from study five: involvement, knowledge, support and evaluation before, during and or after the change, were also incorporated.

Figure 116 (iteration 1) provided a baseline structure for the potential process, however it did not fully encompass the findings from study one to five, thus further iterations were required. To do this a whiteboard was used. The findings narrative was then revisited and the key positive and negative findings identified were added to iteration 1. Sequentially each study (alongside the change literature) was revisited were more in-depth findings were added. As a result five separate ‘stages’ were identified: before, 1, 2, 3 and after. This process was repeated until all relevant findings were incorporated, thus refining the process. In total the process went through seven iterations.

Finally this PhD research puts forward a five-stage process for OSN change, that takes into account the OSN change agent’s responsibilities before, during and after the change (see figure 120). The five-stage process recommends the following:

1. Before, it is recommended that before an OSN change commences knowledge of the change should be delivered to OSN users. This notice should include answers to the following questions: What is the change? Why is the change occurring? When will the change occur? How will users receive the change?

2. Unfreeze, it is recommended that roll out of the new user interface to all OSN users take a maximum of 2-weeks. It was evident that lengthy rollouts cause frustration resulting in nonacceptance. The type of roll out has been left to the discretion of the change agent. However it is recommended that the change be opt-in not opt-out. Furthermore it is recommended that help and support be offered. This should include the purpose of the change, when and how users will receive the change and support for problem solving.

3. Persuade, it is recommended that an overlap of old user interface and new user interface be offered. This allows users to gradually gain confidence. Additionally it is recommended that consultation and feedback be offered as this allows OSN users to ask questions and give
opinions. Furthermore it is recommended that community champions be frequently used to encourage users to revisit the new user interface. Additionally information should be provided that includes user interface updates, problem solving, impending refreeze (stage 4) updates and links to feedback and resources that encourage users to revisit the new user interface. Finally, towards the end of this stage it is recommended that the change agent engage with non accepters to respond to concerns and boost confidence.

4. Refreeze, it is recommended that community champions are used to encourage users to revisit the new user interface and offer positive support. It is also recommended that this stage occur to all OSN users within one day to avoid confusion, also during this time feedback, help and support should be continued.

5. After, it is recommended that after an OSN change an evaluation should occur. The change agent should consult with users after stage 4 to identify issues with the new interface and or the change approach used. This will aid future changes and ensure users opinions are heard. It is also recommended that help and support be provided until the next change commences.

7.4.1 Strengths

The 5-stage process for OSN change distills the previous 5 studies clearly and neatly and offers recommendations that are based on real-world OSN change deployment and users reactions to it. Unfortunately the process does not explicitly offer recommendations for OSN users with cp due to the limitations found within studies three to five (see chapter 10 section 10.3). However the process was derived from OSN users with cp who stated that changing OSNs prevent and or slows their ability to communicate online (see chapters 3 and 4). It was also determined that OSN change has not been represented adequately within HCI literature.

Therefore the 5-stage process for OSN change should be viewed as a valid yet smaller contribution for future HCI researchers, and used as a starting point for improving OSN change that can be built upon.
7.4.2 Weaknesses

The 5-stage process presented two key weaknesses:

1. Due to not being able to distinguish OSN users within studies three to five the 5-stage process put forward requires further validation from the cp community (see chapter 10 section 10.3 for future work that could overcome this limitation).

2. The five-stage process is based on data from two mainstream OSNs (Twitter and Facebook) that are not directed at OSN users with cp therefore it’s transferability and appropriateness could not be confirmed (see chapter 10 section 10.4 for future work that could overcome this limitation).

However it is believed that research question five (how can online social networks change deployment approach be improved to better facilitate users with cerebral palsy?) has been met because a starting point that can be built upon that improves OSN change has been place into the HCI space filling the gap within previous HCI research.
Chapter 9 – Conclusion and future work

10.1 Introduction

This chapter will discuss the outcomes of this PhD research, specifically the achievement of the research questions set out in chapter 1 section 1.4. This will be followed by a key limitation, future work and a closing statement.

10.2 Achievement of the PhD research questions

10.2.1 Study one: Exploratory interview study

Initially this PhD research explored the experiences and challenges faced when adults with cp use online communication specifically OSNs (see chapter 3). Fourteen interviews were carried out with adults with different types of cp. The participants were predominately female ($n=10$), all aged over 18 years and had diverse backgrounds. The study was divided into four parts: computer, internet, online communication and offline communication.

The study identified the reasons for use and non-use of OSNs by individuals with cp and also key themes that include independence, privacy, trust, and change, together with challenges such as slow text entry, poor user interface features, lengthy and complicated tasks, lack of user interface personalisation and unavailable or inappropriate within-website help. The study also provided an overall understanding of the technology, computers and the Internet used to enable OSN participation.

As a result of the findings, the study made this under represented community visible. It has given adults with cp a voice concerning there use of OSNs. The semi-structured interview method used offered participants space to discuss what was important. Additionally the study solely focused on a broad spectrum of cp without encompassing other disabilities meaning the findings appropriately reflect the cp community.
Furthermore the varied questions asked within the study allowed for an in-depth understanding of the current situation of OSN use among this community. Not only has the study put forward why and how adults with cp use OSNs, it also establishes how OSNs fit into their lives both online and offline therefore further filling the gap within previous HCI research.

Thus the study successfully answered research question one and two: What is the current situation of OSN use among adults with cp? What are the inhibiting factors that prevent and or slow OSN use among adults with cp?

10.2.1.1 Limitations and future work

Though the study successfully answered research questions one and two it also presented three limitations:

1. The term ‘online communication’ was used to establish the role of OSNs without explicitly referring to it. This created a confusion when reporting the findings as OSNs were reported alongside other CMC technologies such as Instant Messenger and Video Chat. These findings were interesting but are not the key premise of this PhD research.

If the study was repeated this term would be replaced with OSN to reduce said confusion and provide a better focus.

2. Participant recruitment took 10 months meaning a static understanding of the current situation can not be put forward, for example the fast changing nature of the technology likely impacted what was discussed.

If the study were repeated participant recruitment time would be reduced. To do this recruitment, specifically ‘making oneself and the study visible within the community’, would be completed before commencing the study.
10.2.2 Study two: In-context observational study

As a result of the method used within the exploratory interview study (see chapter 3) some participants, especially those with natural speech impairments or that used AAC devices, could not fully describe their technology use without assistance from a support individual. Due to the nature of these individuals impairments and the role support individuals play within their lives this would be very difficult to overcome if the study were repeated.

As a result a follow-up study, in-context observational study (see chapter 4), was carried out. This allowed OSN users with cp to independently demonstrate their OSN and AT devices use, the tasks they carried out and their feelings during interaction without external influences.

Twenty-one observational sessions were carried out with seven participants with different types of cp and who used OSNs. The observational method used offers a view of what OSN users with cp actually do in context. The study provides a visual narrative of OSN use specifically location, AT devices used and tasks carried out. It also provides a visual (real-life) glimpse of OSN change and the affects it can have on users with cp. The study determined that changing OSNs prevented and or slowed these users ability to communicate.

10.2.2.1 Limitations and future work

Though the study successfully answered research questions one and two it also presented three limitations:

1. The observational study did not include specific tasks i.e. participants were not asked to do or explore specific areas within their chosen OSN. This meant that the findings did not represent OSN features in their entirety or show task variety. As a result the findings appeared incomplete and or uninspiring. However the purpose of the study was to observe what OSN users with cp actually do in context without external influences, which the study successfully achieved.
If the study were repeated participants would be asked to naturally use OSNs for a set period, for example 10 minutes, this would be followed by a series of tasks that focus on common OSN interactions for example viewing a friend profile, sending public and private messages, interacting with groups and applications and logging in and logging out. Thus the following would be recorded: time on task, task completion rate (issues faced and potential solutions) and AT devices required.

2. The observational study did not report OSN content i.e. who participants were talking to and the content of their interactions. Though this was observed it could not be reported due to City University London ethics restrictions specifically the non-public nature of Facebook profiles. The participants provided consent to view their OSN account but consent could not be obtained from those they interacted with, therefore detailed information on these interactions and or conversations could not be reported.

If the study were repeated this limitation could not be overcome.

As a result of the weaknesses of the study the findings reported should be viewed as a form of validation for the exploratory interview study.

Thus studies one and two contribute substantial knowledge concerning why, when, where and how individuals with cp use OSNs, research which is not available within previous HCI literature. Additionally the studies offer a clear understanding of OSN change specifically the type of change experienced and the individuals reactions and feelings towards it.

10.2.3 Study 3: Longitudinal OSN monitoring and analysis study (Twitter)

During the exploratory interview and in-context observation field studies (see chapter 3 and 4), OSNs specifically Facebook underwent multiple user interface changes. Participants reported this as an important facet for inhibiting OSN use. The emergence of OSN change was a major divergence from the planned route of this PhD research. It was believed their was not a large body of research within
this area. Therefore a comprehensive literature review on the subject of change was carried out (see chapter 2 section 2.6).

The literature review determined that change is often discussed during software development but is restricted to identifying scenarios and tools that assist change management within HCI. However change is also looked at within other disciplines specifically psychology and social sciences. Researchers within these areas have offered theories, approaches and methods for change deployment. However no one theory or approach is widely accepted and contradictions, adaptations and exclusions are continually being made. Furthermore this work has not considered users acceptance of the change or the approach used by the change agent.

As a result of the literature review a two part longitudinal OSN monitoring and analysis study was carried out from September 2010 to February 2011 (see chapter 5).

### 10.2.3.1 Part one: peaks

An longitudinal OSN monitoring and analysis study was carried out that investigated how changes are introduced to OSNs, their effect on users and the factors that encourage change acceptance. The study was divided into two parts that investigated a real-world example of OSN change by observing the actions of an OSN change agent. Due to implacable timing, Twitter releasing a rapid restructure, this real-world example was chosen.

Initially a timeline was developed that documented Twitter activities, the timeline provided an external view of how Twitter progressed from the old user interface to the new user interface (#NewTwitter). Using the timeline a Twitter change map was developed. The map considered Twitter activities before, during and after the change deployment. It also took into account the change theories and approaches discussed in chapter 2 section 2.4. The change map offers an understanding of Twitter’s change approach however the change map does not identify Twitter’s users reactions and or acceptance of the change.
Thus the change map failed to answer research question four: How are online social network users experiencing and accepting change? To answer this a Twitter monitoring and analysis study was carried out.

The study took an overview of users reactions to change in Twitter. This was done by investigating tweets that referenced the #NewTwitter hashtag during peaks. Research.ly 1000-day viral analytics data mine chart was used to identify and gather peaks in tweets about #NewTwitter over a 6-month period. There were 6 peaks and a total of 427,925 tweets and a sample of 600 tweets (the first 100 tweets from each peak) were coded using the GIA to discover why users were tweeting about #NewTwitter.

The study findings identified three key issues: Poor information was provided by Twitter regarding the new user interface and problem-solving; the lengthy roll out of the new user interface was frustrating; and the use of community champions (fellow yet popular OSN users) encouraged change acceptance.

The method used, longitudinal OSN monitoring and analysis, has become increasingly popular amongst researchers that have produced work that provides an understanding of user requirements and engagement, competitive intelligence, methods for OSN resource retrieval and business function support. For example studies such as Zabin and Jefferies (2008) produced a roadmap for companies that aim to achieve a variety of business objectives through Best-in-Class use of OSN monitoring and analysis solutions; and Scanfeld et al (2010) identified evidence of misunderstandings or misuse of antibiotics by monitoring Twitter mentions containing the words antibiotic and antibiotics.

However these studies have not looked at how changes are introduced in OSNs, their effect on OSN users and the factors that encourage change acceptance. Therefore the study contributes substantial knowledge concerning the deployment of OSN change, specifically radical restructuring. It provides an understanding of a live approach to change and users reactions to it, this has been viewed as highly valuable.
Therefore the results from the study have filled the gap within previous HCI research. Whilst also successfully answering research questions three and four: How are online social networks deploying change? How are online social network users experiencing and accepting change?

10.2.3.1.1 Limitations and future work

Though the study successfully answered research questions three and four it also presented three key limitations:

1. The study does not distinguish individuals with cp however this does not diminish the value of the study because the OSN users include individuals with cp as study one and two identified (see chapter 3 and 4). However the study creates a limitation because OSN users with cp are not distinguishable within the data set. This was attributed to OSN users with disabilities rarely disclosing their impairment within the technology.

   To overcome this future work is required that consults with the cp community to validate the findings presented. This limitation and future is further work discussed in section 10.3.

2. The fact that five of the six peaks occurred in the first three weeks of the Twitter change meant that the data did not provide a comprehensive detailed view of how the change occurred and users reactions to it, as the sample did not reflect the period equally or in its entirety. It was determined that a follow-up study was required.

10.2.3.1.2 Part two: event sampling

The follow up study, in-depth longitudinal OSN monitoring and analysis, investigated user reactions to change in Twitter over the same six-month period. It used an event-sampling method where the first 100 tweets mentioning #NewTwitter on Tuesdays were collected, Tuesday was chosen because it is the most popular day for tweets accounting for 15.7% of tweets. Twenty-four events were identified and a total of 203,889 tweets were gathered and a sample of 2,400 tweets (first 100 tweets with the hashtag Cerebral palsy, online social networks and change.

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#NewTwitter from each Tuesday) were coded using the GIA to discover why users were tweeting about #NewTwitter.

The study reiterated the findings from study three part one whilst also offering a greater understanding of the deployment of OSN change, specifically radical restructuring. It provides a better (in-depth) understanding of a live approach to change and users reactions (alongside user feelings) to it and puts forward a unique way to display said data via an infographic. Thus this has been viewed as highly valuable.

Therefore the results from the study have further filled the gap in previous HCI research. Whilst also further answering research questions three and four: How are online social networks deploying change? How are online social network users experiencing and accepting change?

10.2.3.2 Limitations and future work

Though the study successfully answered research questions three and four it also presented two key limitations:

1. Similarly to part one the study does not distinguish individuals with cp however this does not diminish the value of the study because the OSN users include individuals with cp as study one and two identified (see chapter 3 and 4). However the study creates a limitation because OSN users with cp are not distinguishable within the data set. This was attributed to OSN users with disabilities rarely disclosing their impairment within the technology.

To overcome this future work is required that consults with the cp community to validate the findings presented. This limitation and future work is further discussed in section 10.3.

2. The study findings reflect radical restructuring on Twitter that used a specific change approach. As a result a key critique has emerged: Would OSN users react similarly if a different OSN change approach was used? Would OSN users react similarly if the OSN
change represented weak restructuring? Would OSN users react differently to change within a different OSN?

To answer these questions it was determined that a follow-up study was required.

**10.2.4 Study 4: Longitudinal OSN monitoring and analysis study (Facebook)**

A longitudinal OSN monitoring and analysis study that focused on weak restructuring, was carried out during 15 December 2010 to 4 June 2011 (see chapter 6). The study investigated the change approach and users reactions on a popular OSN (Facebook). Similarly to study three, due to implacable timing, Facebook releasing a weak restructure, this real-world example was chosen.

On 15 December 2010 Facebook began to roll out an improved photo-tagging feature that changed from manual to automatic photo-tagging using facial recognition. On release of this feature Facebook posted a public blog “Making photo tagging easier”. This offered information about the new feature and allowed users to give feedback.

A total of 13,754 units specifically 431 comments, and 13,323 likes were collected. The comments were coded using the inductive category model developed within the Twitter monitoring and analysis study (see chapter 5) to discover why users were discussing the new photo-tagging feature.

The study found that users disliked the Facebook change approach, this was attributed to poor information provided by Facebook. The study also found that users were questioning the need for the change because they felt it would affect their privacy. However it was determined that this was a result of the new feature not the change approach. The study found that users reactions to weak restructuring was not significantly different to the reactions of users that had experienced radical restructuring. However the study did not explicitly identify how OSN users would like to experience change.

Similarly to study three the method used, longitudinal OSN monitoring and analysis, has become increasingly popular amongst researchers. As previously stated this previous work has not looked at
how changes are introduced within OSNs, their effect on OSN users and the factors that encourage change acceptance.

Study three contributes substantial knowledge concerning the deployment of OSN change specifically radical restructuring. It provides an understanding of a live approach to change and users reactions (alongside user feelings) and puts forward a unique way to display said data via an infographic. Whilst this study substantially adds to this by further exploring deployment of OSN change specifically weak restructuring, within a different OSN and change deployment setting. Therefore reconfirming the findings from study three as a result the findings from this study has been viewed as highly valuable.

Therefore the results from the study have further filled the gap within previous HCI research. Whilst also further answering research questions three and four: How are online social networks deploying change? How are online social network users experiencing and accepting change?

10.2.4.1 Limitations and future work

Though the study successfully answered research questions three and four it also presented two limitations:

1. Similarly to study three, this study does not distinguish individuals with cp however this does not diminish the value of the study because the OSN users include individuals with cp as study one and two identified (see chapter 3 and four). However the study creates a limitation because OSN users with cp are not distinguishable within the data set. This was attributed to OSN users with cp rarely disclosing their impairment within the technology and the non-public nature of Facebook profiles i.e. participants cp status could not be observed.

To overcome this limitation future work is required that consults with the cp community to validate the findings presented. This limitation and future work is further discussed in section 10.3.
2. Studies three and four investigated how an OSN change is deployed, its effect on users, and the factors that encourage change acceptance and non-acceptance in both a radical and weak restructuring setting. However the studies did not explicitly identify how OSN users would like to experience change.

Therefore it was determined that a follow-up study was required.

10.2.5 Study 5: Questionnaire study

The final study, questionnaire, investigated the factors that affect OSN users acceptance of change. The study was influenced by the previous studies: study one identified that OSN change was an issue for the cp community, study 2 reiterated this and offered examples, whilst study 3 and 4 provided real-world examples of OSN change alongside users reactions. However none of these studies explicitly focused on how OSN users would like to experience change. The purpose of this study was to fill this gap in understanding.

The study used open internal and external recruitment. Forty-one responses were gathered and respondents were aged over 18 years and had diverse backgrounds.

The study found that respondents had experienced website change \((n=23)\) and 84% of them continued to use the website after the change was deployed. Additionally the study identified three key factors that influence change acceptance:

1. Knowledge of the change was reported as ‘very significant’ or ‘significant’,
2. Consultation throughout and after the change was reported as ‘very significant’ or ‘significant’,
3. Help and support before, throughout and after was reported as ‘significant’.
The study also provided further insight into the factors that encourage change acceptance. The study found that website performance and the user interface, inclusion by the change agent and general website improvements were positive factors that influenced change acceptance.

Though studies three and four successfully answered research questions three and four they did not explicitly identify how OSN users would like to experience change. This study fills this gap in understanding by identifying the factors that affect OSN users acceptance of change. Thus the findings from this study has been viewed as highly valuable.

Therefore the results from the study have further filled the gap within previous HCI research. Whilst also further answering the latter part of research question four: How are online social network users experiencing and accepting change?

10.2.5.1 Limitations and future work

Though the study successfully answered research questions four it also presented two limitations:

1. The study referred to website change rather than OSN change because it aimed to establish internet change in the hopes that OSN change was experienced by the population. In reflection this decision was flawed as it meant the study results did not completely link to the Twitter or Facebook studies.

   If the study was repeated the phrase “website change” would be replaced with OSN to reduce said confusion and provide a better study focus.

2. The study did not identify OSN users with cp due to recruitment issues and a concern of over researching i.e. approaching participants from study one and two. These limitations meant that the study was very broad and a prime opportunity to gather final insights from the cp community was missed.
If the study was repeated these limitations would be addressed i.e. focusing on OSN users with cp and explicitly looking at OSN change experiences.

Studies three, four and five (see chapter 5, 6 and 7) have successfully answered research question three and four (see chapter 1 section 1.4). Whilst also putting forward two methodological contributions:

1. A unique way of displaying OSN change and user acceptance via an infographic,
2. An inductive category model to examine OSN change.

However the studies have not answered research question five: How can online social networks change deployment approach be improved to better facilitate users with cerebral palsy?

10.2.6 5-stage process for OSN change

Through distilling the findings from studies three, four and five (see chapters 5, 6 and 7) whilst also considering studies one and two (see chapters 3 and 4) together with the change theories and approaches identified in the comprehensive literature review (see chapter 2 section 2.6). This PhD research puts forward a process for OSN change for change agents to follow (see chapter 9). The 5-stage process takes into account the OSN change agent’s responsibilities before, during and after the change (see figure 120).

However due to not being able to distinguish OSN users within studies three to five the process put forward requires further validation from the cp community (see section 10.3 and 10.4). However it is believed that research question five, how can online social networks change deployment approach be improved to better facilitate users with cerebral palsy? has been met because a starting point that can be built upon that improves OSN change has been place into the HCI space filling the gap within previous HCI research.
Thus the overarching goal of this PhD research has been met: providing an understanding of the experiences and challenges faced when people with cerebral palsy use online social networks and to put forward a process for effective change deployment whilst also limiting the affects of such change on users with cp.

10.3 Non-representation of cp community

The substantial data gathered within studies three and four focused on how OSN changes are introduced their effect on users, and the factors that encourage OSN change acceptance and non-acceptance (see chapter 3 and 4). However the cp community was not distinguishable (or the wider disability community for that matter) within the data set. This was attributed to OSN users with disabilities rarely disclosing their impairment within the technology. According to Bowker and Tuffin (2010: X)OSNs“Does not simply assist the body, but also arguably permits disabled people to be judged on their merits without prejudice associated with impairment”.

Bowker and Tuffin (2010) interviewed 15 internet and online communication users with physical and sensory impairments, ranging from 30 to 59 years old. Their work identified three key factors influencing disability disclosure:

1. Relevance, disability becomes appropriate to disclose when it is specific to the context of the conversation otherwise it has no place,
2. Anonymity, non-disclosure of disability is freely sustained until such time as personal details are constructed and made available to others,
3. Normality, being on par with able-bodied people, in which case non-disclosure is conceptualised as a participatory right that disabled people can access, while offline they have been denied this subjective space.

Their work highlighted that Internet and online communication users with physical disabilities, specifically cp, favour normality. One of their participants with cp described:
“Because the nice thing about the Internet is that you are ‘on a par’ with everyone else and can be treated as being ‘normal’-your disability isn’t an issue. Also, people may feel awkward or disinterested if they have no understanding or experience of disability. Although cp is an intrinsic part of who I am, there is more to me that just that. As someone who spends a lot of time in the disability sector, it’s nice just to get away from it sometimes” (Bowker and Tuffin, 2010: 328).

Therefore distinguishing OSN users with cp in studies three and four was impossible. In reflection an alternative study could have been designed that included OSN users with cp such as observing an OSN directed at users with disabilities, for example Disaboom, Xable and Disabled Friends, where users are more likely to disclose there cp status. However as the purpose of the study would be to gather an understanding of a real-world change process and users reactions to it, this solution would be impractical because this PhD research shows that the OSN community is often unaware of the change prior to the change occurring. Thus it would require the researcher to observe the OSN directed at users with disabilities for an unspecified time waiting for a change that may or may not take place.

Alternatively studies three and four could have been extended to include user tracing i.e. the researcher identifies an online profile for each respondent within the dataset to establish their cp status. Again this would be impractical and time-consuming (not within the time constraints posed by this PhD research) due to the large amount of data collected within study three and four.

Therefore this PhD research recommends future work that consists of consultations with the cp community to validate the findings presented within studies three and four (see section 10.3).

10.4 Additional future work

This PhD research discovered that OSN change is critical for long-term research that considers OSNs and other internet technologies that are used by the cp community. The work identified that radical and or weak changes is disruptive in general. However its effects are not limited to users with cp. Other disabilities that have similar impairments associated with physical disabilities, for example Pelizaeus-
Merzbacher, Charcot-Marie-Tooth disease and Rett Syndrome (Mattison, 2010), could also find this PhD research beneficial.

There are many opportunities for extending this research. It is believed that further work is required from HCI and to a lesser extent web accessibility, computer-mediated communication and change management researchers, academics and practitioners. This work could include:

1. Studies involving different OSN users with similar impairments associated with physical disabilities, for example Pelizaeus-Merzbacher, Charcot-Marie-Tooth disease and Rett Syndrome. This would relate to the data obtained within the exploratory interviews and in-context field observation studies (see chapter 3 and 4). This work would discern (dis)similarities with the cp community.

2. Further testing of the inductive category model for investigating OSN change for trustworthiness is suggested. The model put forward in this PhD research is classed as a ‘starting point’ and the level of trustworthiness reported here has been deemed appropriate. However it is believed that further tests would confirm the removal of non-English text units and lead to more appropriate refinements (see chapter 5 section 5.4.4.3).

3. Testing the inductive category model for investigating OSN change within other change environments such as OSNs focusing on people with disabilities, for example Disaboom, Xable and Disabled Friends, and web 2.0 websites, technologies that allow users to communicate with each other and the technology provider. Such further tests would confirm the flexibility of the inductive category model within similar yet varied environments.

4. Multiple consultations with the cp community regarding the five-stage process for OSN change. The process put forward by this PhD research was developed with this community in mind however they are yet to provide comments. Ideally a longitudinal study of individuals with cp experiencing a real-world change is proposed.
However due to the impromptu nature of OSN change deployment this would be difficult to achieve. Thus this PhD research proposes the use of focus groups involving OSN users with cp. Focus groups will allow the researcher to obtain reactions to the process, gather insights that might be sparked by group discussion and obtain opinions, attitudes, and preferences from participants (Wilson, 2006). Therefore presenting the five stage process for OSN change to OSN users with cp and providing opportunities for discussion, reflection and alteration would be most appropriate.

5. Testing the five-stage process for OSN change within other OSNs, specifically those directed at individuals with physical disabilities for example Disaboom, Xable and Scope Forum; and within changing web 2.0 technology environments. This work would discern the transferability and appropriateness of the process.

10.5 Closing statement

The overarching aim of this PhD research is to address the gap in the literature and research to make the cp community more visible. As a result of this PhD research, specifically Lewis (2010), recent work within web accessibility (Hollier, 2012) has identified changing OSNs as a key barrier to users with unspecified disabilities. This work (alongside Magee, et al (2011)) has shown that the initial aim of this PhD research has been successfully met.

Thus it is believed this PhD in human-computer interaction entitled “Cerebral palsy, online social networks and change” provides valuable first work which HCI researchers can build upon.
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Appendix A - Materials

This appendix is divided into five parts that represent each study: exploratory interviews, in-context field observations, longitudinal monitoring and analysis (Twitter and Facebook) and questionnaire (see chapter 1 section 1.5 for a summary of the studies). It will provide sample documents, such as consent forms, questionnaire structures etc., used to carryout the studies.
A.1 Study One: Exploratory interviews (chapter 3)

A.1.1 Recruitment A4 poster

A PhD research student from City University London (Human-Computer Interaction Design Centre) is looking to recruit participants aged 18+ and who have Cerebral Palsy, to take part in a study that will investigate Computer, Internet and On-line Communication usage amongst adults with Cerebral Palsy.

The study will involve the completion of a pre-interview questionnaire and an interview lasting up to 1-hour. The interviews will take place throughout May and June 2009 within City University London or a location of your choosing.

For more information or to register your interest please contact:

Makayla M. Lewis

Email: makayla.lewis.1@city.ac.uk
(using subject: “Interview Study 2009”)

Telephone: +44 (020) 7040 8994

Post to: Makayla Miranda Lewis
PhD Student,
Centre for Human-Computer Interaction Design, School of Informatics, City University London,
Northampton Square,
London EC1V 0HB
A.1.2 Participant covering letter

March 2009

Dear Participant,

RE: An Interview Study: An investigation of computer, Internet and on-line communication usage amongst adults with Cerebral Palsy.

Firstly, I would like to thank you for expressing an interest in participating in my study: An Interview Study: An investigation of computer, Internet and on-line communication usage amongst adults with Cerebral Palsy.

The purpose of the study is to analyse computer, Internet and on-line communication usage amongst adults with Cerebral Palsy. The study will require the completion of a pre-interview questionnaire and an interview lasting up to 1-hour. The interview sessions will take place on March 9th to March 27th 2009 within City University London or a location of your choosing.

It is highly recommended that you read the exploratory sheet and if you are happy to take part in the study could you please complete the Pre-Interview Questionnaire and Participant Consent Form. After completion could you give or post back the questionnaire and form using the self-addressed envelope before the date of your chosen interview session (all documents have been enclosed).

Also if you know anyone who would be interested in taking part in this study please give them a copy of the enclosed recruitment flyer.

If you have any further questions or queries about the study, please do not hesitate to contact me.

I look forward to hearing from you.

Kind Regards,

Makayla Miranda Lewis
PhD Research Student

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A.1.3 Pre-interview questionnaire

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City University London, Centre for HCI Design
Recruitment Pre-Interview Questionnaire

My name is Makayla Miranda Lewis and I am a PhD student at the City University London, Centre for Human-Computer Interaction design. You recently phoned, emailed, posted expressing an interest in participating in a study titled: An Interview Study: An investigation of computer, Internet and on-line communication usage amongst adults with Cerebral Palsy. The study will involve 20 or more participants, aged 18 and above and who have Cerebral Palsy. The purpose of the study is to analyze computer, Internet and on-line communication usage amongst adults with Cerebral Palsy. The study will require the completion of a pre-interview questionnaire and an interview lasting up to 1-hour.

Please spend the next few minutes answering the following questions.

1. Will you be available for a 1-hour interview session on either February 26th – March 27th 2009?
   - Yes
   - No

2. Have you participated in an interview study before? (tick the appropriate box)
   - Yes
   - No

   If YES what was its subject? …………………………………………………………………………………

PERSONAL PARTICULARS

3. Are you a member of City University London? (tick the appropriate box)
   - Yes
   - No

4. What is your gender? (tick the appropriate box)
   - Male
   - Female

5. What is your age range? (tick the appropriate box)
   - 18 - 25
   - 26 - 30
   - 31 - 39
   - 40 - 60
   - 61 +
DISABILITY PARTICULARS

6.a. Do you have Cerebral Palsy?  (tick the appropriate box)

☐ Yes
☐ No

6.b. If you answered YES to question 6a, please indicate the type of Cerebral Palsy you have and any limitations caused by your condition.

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6.c. If you answered YES to question 8, do you have any other limitations or disabilities that are not associated with your Cerebral Palsy? (for example, cognitive, learning, visual, hearing or other physical disabilities)

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7.a. Do you use any aids (for example: a wheelchair) or assistive technologies (for example an electronic talker)?  (tick the appropriate box)

☐ Yes
☐ No

7.b. If you answered YES to question 7a, please indicate the type of aids and or assistive technologies used.

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RESEARCH PARTICULARS

9. Do you use a computer? (tick the appropriate box)
   - Yes
   - No

10. Do you use the Internet? (tick the appropriate box)
    - Yes
    - No

11. Do you use On-line communities? e.g. Bulletin Boards, Forums, Social Networks etc. (tick the appropriate box)
    - Yes
    - No

AVAILABILITY

8. Please indicate a date and time you would like to be interviewed?
   Date: ……………………
   Time: ……………………

PARTICIPANT CONTACT INFORMATION

Full Name: ………………………………………………….
Contact Telephone Number: ………………………………………………….
Email Address: ………………………………………………….

Thank you for taking the time to complete this pre-interview questionnaire!

A.1.4 Participant recruitment form
Project Title: An Interview Study: An investigation of computer, Internet and on-line communication usage amongst adults with Cerebral Palsy

Investigator: Makayla Miranda Lewis, Makayla.Lewis.1@soi.city.ac.uk, (+44) 7 960 430144

Script: “This study plans to investigate computer, Internet and online communication usage amongst adults, aged 18 and above, with Cerebral Palsy. The study is composed of two parts. In the first part participants will be required to complete a pre-interview questionnaire asking them about their personal particulars, such as, their affiliation with city university, gender, age, education, employment; their disability and or disabilities, and any aids or assistive technologies used; their availability to participate; and their contact information. The second part of the study will concise of an interview that will last up to a 1-hour. This interview will be offered as either a single 1-hour interview session or two 30-minute sessions. The interview will be conducted at City University London, Centre for Human-Computer Interaction Design, Focus Room or in a location of your choosing. The interview will be videoed and audiotaped.”

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Participant Recruitment List

Project Title: An Interview Study: An investigation of computer, Internet and on-line communication usage amongst adults with Cerebral Palsy

Investigator: Makayla Miranda Lewis, Makayla.Lewis.1@soi.city.ac.uk, (+44) 7 960 430144

Script: “This study plans to investigate computer, Internet and online communication usage amongst adults, aged 18 and above, with Cerebral Palsy. The study is composed of two parts. In the first part participants will be required to complete a pre-interview questionnaire asking them about their personal particulars, such as, their affiliation with city university, gender, age, education, employment; their disability and or disabilities, and any aids or assistive technologies used; their availability to participate; and their contact information. The second part of the study will concise of an interview that will last up to a 1-hour. This interview will be offered as either a single 1-hour interview session or two 30-minute sessions. The interview will be conducted at City University London, Centre for Human-Computer Interaction Design, Focus Room or in a location of your choosing. The interview will be videoed and audiotaped.”

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Centre for Human-Computer Interaction Design
School of Informatics, City University London
Northampton Square, London EC1V 0HB
Tel: +44 (0) 20 7040 5900; Fax: +44 (0)20 7040 8859;
Email: Makayla.Lewis.1@soi.city.ac.uk
A.1.5 Explanatory statement for participants

Project Title: An Interview Study: An investigation of computer, Internet and on-line communication usage amongst adults with Cerebral Palsy

Principle Investigator: Panayiotis Zaphiris, Zaphiris@soi.city.ac.uk
Co-Investigator: Makayla Miranda Lewis, Makayla.Lewis.1@soi.city.ac.uk, +44 (020) 7 040 8994

This study plans to investigate computer, Internet and online communication usage amongst adults, aged 18 and above, with Cerebral Palsy. The study is composed of two parts. In the first part participants will be required to complete a pre-interview questionnaire asking them about their personal particulars, such as, their affiliation with city university, gender, age, education, employment; their disability and or disabilities, and any aids or assistive technologies used; their availability to participate; and their contact information. The second part of the study will consist of an interview that will last up to a 1-hour. This interview will be offered as either a single 1-hour interview session or two 30-minute sessions. The interview will be conducted at City University London, Centre for Human-Computer Interaction Design, Focus Room. The interview will be videoed and audiotaped.

Volunteers participating in the study will inform designers of on-line communication of how and why the Internet and on-line communication services are used and the challenges being faced by users with Cerebral Palsy, this better understanding could benefit Cerebral Palsy users when accessing and conducting online communication.

Please note only the principle investigator and co-investigator will use the data collected from the study. The data collected will only be used as part of the co-investigator PhD study. The audio and video recordings will be stored securely and only the principle and co investigator will view and have access to the recordings. All data will be stored for 3 years and then destroyed. Furthermore appropriate measures have been put in to place to protect the participants’ confidentiality and no identifiable personal data will be published or shared with any other organisation.

The participant’s participation in the study is voluntary, and the participant can choose not to participate in part or the entire study, and withdraw at any stage, or avoid answering questions that are felt too personal or intrusive. The participant’s will also have the right to terminate/suspend the recording at any time should they so wish, without being penalised or disadvantaged in any way.

If there is an aspect of the study, which concerns you, you may make a complaint. City University has established a complaints procedure via the Secretary to the Research Ethics Committee. To complain about the study, you need to phone (020) 7 040 3040. You can then ask to speak to the Secretary of the Ethics Committee and inform them that the name of the project is: An Interview Study: An investigation of computer, Internet and on-line communication usage amongst adults with Cerebral Palsy.

You could also write to the Secretary at:

Anna Ramberg
Secretary to Senate Ethics Committee
Research Development Office
City University
Northampton Square
London
EC1V 0HB
Email: anna.ramberg.1@city.ac.uk

A.1.6 Adult informed consent form
Project Title: An Interview Study: An investigation of computer, Internet and online communication usage amongst adults with Cerebral Palsy

I agree to take part in the above City University, Centre for Human-Computer Interaction Design research study. I have had the study explained to me, and I have read the Explanatory Statement, which I may keep for my records. I understand that agreeing to take part in this study, that investigates computer, Internet and online communication usage amongst adults with Cerebral Palsy, this means that I am willing to:

* be asked to answer a pre-interview questionnaire related to the study
* be interviewed by the researcher
* allow the interview to be videotaped/audiotaped

I understand that volunteers participating in the study will inform designers of online communication on how and why the Internet and online communication services are used and the challenges being faced by users with Cerebral Palsy. I understand that the value offered to designers of online communication could benefit users with Cerebral Palsy when accessing and when conducting online communication.

Data Protection

The information will be held and processed for the purpose of measuring adult’s person’s usage of computers, the Internet and online communication. I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the study, or to any other party. I understand that no identifiable personal data will be published or shared with any other organisation.

I understand that only the principle investigator and co-investigator will use the data collected from the study and the data collected will only be used as part of the co-investigator’s PhD study.

I understand that all audio and video recordings will be stored securely and only the principle and co-investigator will view the recordings and all data collected will be stored for 3 years and then destroyed.

I agree to City University recording and processing this information about me. I understand that this information will be used only for the purpose(s) set out in this statement and my consent is conditional on the University complying with its duties and obligations under the Data Protection Act 1998.

Withdrawal from study

I understand that my participation is voluntary, that I can choose not to participate in part or the entire study, and withdraw at any stage, or avoid answering questions that are felt too personal or intrusive. I understand that I have the right to terminate/suspend the recording at any time, without being penalised or disadvantaged in any way.

Name:..........................................................................
Signature:....................................................................
Date: ........................................

Centre for Human-Computer Interaction Design
School of Informatics, City University London
Northampton Square, London EC1V 0HB
Tel: +44 (0) 20 7040 8994; Fax: +44 (0)20 7040 8859;
Email: Makayla.Lewis.1@soi.city.ac.uk

A.1.7 Adult informed consent form for support individuals
Adult Informed Consent Form

Project Title: An Interview Study: An investigation of computer, Internet and on-line communication usage amongst adults with Cerebral Palsy

I agree to take part in the above City University, centre for Human-Computer Interaction Design research study. I have had the study explained to me, and I have read the Explanatory Statement, which I may keep for my records. I understand that agreeing to take part in this study, that investigates computer, Internet and online communication usage amongst adults with Cerebral Palsy, this means that I am willing to:

* be asked to answer a pre-interview questionnaire related to the study
* be interviewed by the researcher
* allow the interview to be videotaped/audiotaped

I understand that volunteers participating in the study will inform designers of on-line communication of how and why the Internet and on-line communication services are used and the challenges being faced by users with Cerebral Palsy. I understand that the value offered to designers of on-line communication could benefit users with Cerebral Palsy when accessing and when conducting online communication.

Data Protection

The information will be held and processed for the purpose of measuring adult’s person’s usage of computers, the Internet and on-line communication. I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the study, or to any other party. I understand that no identifiable personal data will be published or shared with any other organisation.

I understand that only the principle investigator and co-investigator will use the data collected from the study and the data collected will only be used as part of the co-investigator’s PhD study.

I understand that all audio and video recordings will be stored securely and only the principle and co investigator will view the recordings and all data collected will be stored for 3 years and then destroyed.

I agree to City University recording and processing this information about me. I understand that this information will be used only for the purpose(s) set out in this statement and my consent is conditional on the University complying with its duties and obligations under the Data Protection Act 1998.

Withdrawal from study

I understand that my participation is voluntary, that I can choose not to participate in part or the entire study, and withdraw at any stage, or avoid answering questions that are felt too personal or intrusive. I understand that I have the right to terminate/suspend the recording at any time, without being penalised or disadvantaged in any way.

Name:........................................................................... (please print)
Signature:........................................................................ Date: ........................................

Centre for Human-Computer Interaction Design
School of Informatics, City University London
Northampton Square, London EC1V 0HB
Tel: +44 (0) 20 7040 8994; Fax: +44 (0)20 7040 8859;
Email: Makayla.Lewis.1@soi.city.ac.uk

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Interviewer Post-Interview Notes (…continued)

INTERVIEW OBSERVATION NOTES:

Notes taken by: ......................................................
Date: ..............................................................
Signature: ........................................................

Centre for Human-Computer Interaction Design
School of Informatics, City University London
Northampton Square, London EC1V 0HB
Tel: +44 (0) 20 7040 8994; Fax: +44 (0)20 7040 8859;
Email: Makayla.Lewis.1@soi.city.ac.uk
A.2 Study Two: In-context field observations (chapter 4)

A.2.1 Recruitment A4 poster

DO YOU HAVE CEREBRAL PALSY?
DO YOU USE ONLINE SOCIAL NETWORKS?

If you answered YES to both questions, a PhD research student from City University London (Human-Computer Interaction Design Centre) is looking to recruit participants aged 18+, who have Cerebral Palsy and use Online Social Networks (e.g. Facebook & MySpace) to take part in an observational field study that examines Online Social Network use amongst adults with Cerebral Palsy.

The study will involve the completion of a pre-study questionnaire and 3 observation sessions, over 3 consecutive weeks. The total duration of the study is 1 hour 55 minutes. The observation sessions will take place 22nd February to 12th March 2010 in the location where you use Online Social Networks.

For more information or to register your interest please contact:

Makayla M. Lewis

Email: makayla.lewis.1@city.ac.uk
(using subject: “Observational Study 2010”)

Telephone: +44 (020) 7040 8994

Post to: Makayla M. Lewis
PhD Student,
Centre for Human-Computer Interaction Design, School of Informatics, City University London, Northampton Square, London EC1V 0HB
A.2.2 Participant covering letter

January 2010

Dear Volunteer,

RE: AN IN-CONTEXT OBSERVATIONAL FIELD STUDY: AN EXAMINATION OF ONLINE SOCIAL NETWORK USE AMONG ADULTS WITH CEREBRAL PALSY.

Firstly, I would like to thank you for expressing an interest in participating in my study: An in-context observational field study: An examination of online social network use among adults with Cerebral Palsy.

The observational field study will examine online social network use amongst adults (aged 18 and above) with the physical disability ‘Cerebral Palsy’. The purpose of the study is to observe how, why and where people with Cerebral Palsy engage and interact with online social networks within their natural environment. The study will require the completion of a pre-study questionnaire and 3 observation sessions, over 3 consecutive weeks. The total duration of the study is 1 hour 55 minutes. The observation sessions will take place 22nd February to 12th March 2010 in the location where you use Online Social Networks.

It is highly recommended that you read the exploratory sheet for participants and if you are happy to take part in the study could you please complete the pre-study questionnaire and participant consent form. After completion could you give or post back the pre-study questionnaire and participant consent form using the self-addressed envelope before the date of your chosen first observation session (all documents have been enclosed).

If you have any further questions or queries about the study, please do not hesitate to contact me.

I look forward to hearing from you.

Kind Regards,

Makayla Miranda Lewis
PhD Research Student in Human-Computer Interaction

City University London
Centre for Human-Computer Interaction Design
Northampton Square
London EC1 0HB
Tel: +44 (020) 7 040 8994 | Fax: +44 (020) 7 040 8859 | Email: makayla.lewis.1@city.ac.uk

Enclosed (5)
Covering Letter
Explanatory Statement for Study Participants
Pre-Study Questionnaire
Participant Consent Form
Self-Addressed Envelope
A.2.3 Pre-observation questionnaire

Hello, my name is Makayla Lewis and I am a PhD student at City University London, Centre for Human-Computer Interaction Design. You recently expressed an interest in participating in a study titled: An in-context observational field study: an examination of online social network use amongst adults with cerebral palsy.

The study involves participants, aged 18 and above and who have Cerebral Palsy. The purpose of the study is to observe social network use amongst adults with Cerebral Palsy. The study will require completion of this pre-study questionnaire and 3 observation sessions, lasting up to 30 minutes each. The total duration of the study is 1 hour and 55 minutes. The observation sessions will be carried out in the location where you use online social networks.

For more information about the study please refer to the Explanatory Statement for Participants.

Please spend the next few minutes answering the following questions.

1a. Have you participated in an observational study before? (delete as appropriate)
   Yes          No

1.b. If you answered yes to question 2a, what was the subject of the study?

PERSONAL PARTICULARS

2. Are you a member of City University London? (delete as appropriate)
   Yes          No

3. What is your gender? (delete as appropriate)
   Female    Male

4. What is your age range? (delete as appropriate)
   18 – 25   26 – 30   31 – 39   40 – 60   60+

Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
5a. Do you have a Cerebral Palsy? (delete as appropriate)
   Yes  No

5b. If you said yes to question 5a, please indicate the type of Cerebral Palsy you have?

5c. If you answered yes to question 5a, do you have any other disability or limitation that is not associated with your Cerebral Palsy? (delete as appropriate)
   Yes  No

5d. If you answered yes to question 5c, please indicate the additional limitation(s) or disability you have?

6a. Do you use any aids (for example a wheelchair) or assistive technology (e.g. talker)? (delete as appropriate)
   Yes  No

6b. If you answered yes to question 6a, please indicate the type of aids and or assistive technology used.

7. Do you have a personal assistant and or caregiver? (delete as appropriate)
   Yes  No
**Pre-Study Questionnaire** [continued]

### STUDY PARTICULARS

8a. Do you use online social networks? (delete as appropriate)

Yes  No

8b. If you answered yes to question 9a, please indicate where you use online social networks?

8c. Would it be possible for the Principal Investigator (Makayla Lewis) to carrying out observation sessions in the location(s) identified in question 9b? (delete as appropriate)

Yes  No

### STUDY AVAILABILITY

9. What observation sessions would you like to attend? (tick appropriate box and give a time)

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Pre-Study Questionnaire [continued]

PARTICIPANT CONTACT INFORMATION

Full Name:

Contact Telephone Number:

Email Address:

Thank you for taking the time to complete this pre-study questionnaire!
A.2.4 Explanatory statement for participants

**Explanatory Statement for Study Participants**

**Project Title: An in-context observational field study: An examination of online social network use among adults with Cerebral Palsy.**

You are being invited to take part in a research study. The purpose of this explanatory statement is to provide you with information about the study and your participation, so that you will be able to make an informed decision about whether or not to participate.

**What is the study about?**

This observational field study will examine online social network use amongst adults (aged 18 and above) with the physical disability ‘Cerebral Palsy’. The purpose of the study is to observe how, why and where people with Cerebral Palsy engage and interact with online social networks within their natural environment.

**What will your participation involve?**

The observational field study is composed of 3 parts. In the first part of the study, you will be asked to complete a Pre-Study Questionnaire, lasting up to 25 minutes. The Pre-Study Questionnaire will ask you about your particulars such as: City University London affiliation, gender, age, Cerebral Palsy type, non-associated disabilities or limitations, aids and or assistive technologies used, your personal assistant and or caregiver status, your online social network use status, the location of your online social network use, your availability to participate, and your contact details.

In the second part of the study, you will be asked to complete three observation sessions that take place over three consecutive weeks. Each observation session will last up to 20 minutes. The observation sessions will be carried out at the location where you use online social networks (e.g. at your home or community centre). The observation sessions will be audiotaped and videotaped. At the start of the observation session, photographs of your surroundings (workstation, assistive technologies and or communication aids) will be taken. The Principal Investigator (Makayla Lewis) will also hand draw the layout of the space. You will not be given tasks to complete, but will be asked to use your chosen online social network as you would usually do so. The Principal Investigator (Makayla Lewis) will observe the tasks attempted and completed; the roles aids, assistive technologies and support individuals play in completing tasks; the length of time on tasks and the order of tasks; and the problems faced. During the observation additional photographs will be taken and hand written notes will be made by the Principal Investigator (Makayla Lewis).

In the third part of the study, after each observation session you will be asked to complete a Post-Observation Interview. The Post-Observation Interview will last up to 10 minutes and will be audiotaped and videotaped. You will be asked about the goals they had during the observation session, and your respective feelings when you completed the goals and when problems were faced.

The total duration for the observational field study is up to 1 hour 55 minutes. Your participation in the study will provide a better understanding of how, why and where adults with Cerebral Palsy use online social networks. This could in turn benefit the users themselves, in terms of accessing and carrying out communication within online social networks. Participants participating in the study will be informed of the overall results or outcome of the study.

Centre for Human-Computer Interaction Design
School of Informatics, City University London
Northampton Square, London EC1V 0HB
Tel: +44 (0) 20 7040 8994; Fax: +44 (0) 20 7040 8859;
Email: Makayla.Lewis.1@soi.city.ac.uk

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
What will happen to the information you provide?

Only the Principal Investigators will use the data collected from the study. The data collected will only be used as part of the Principal Investigator (Makayla Lewis) PhD. The photographs, drawings and video-clips collected will only be used in presentations and publications as part of the Principal Investigator (Makayla Lewis) PhD. The audio and video recordings, photographs, drawings and handwritten notes will be stored securely and only the Principal Investigators will view and have access to the recordings. All data will be stored for 4 years and then destroyed. In addition, appropriate procedures have been put in place to protect the participants’; the individual(s) at the other terminal(s) and the support individual(s) (personal assistant and or caregiver) confidentiality, and no identifiable personal data will be published or shared with any other organisation.

If you wish to withdraw from the study

Your participation in the study is voluntary, and you can choose not to participate in part or the entire study, and withdraw at any stage, or avoid answering questions that are felt too personal or intrusive. You will also have the right to terminate and/or suspend the recording at any time should if you so wish, without being penalised or disadvantaged in any way.

Further information

If you have any queries about the project or your participation in it, or require further information, please do not hesitate to contact Makayla Lewis, Stephanie Wilson or Panayiotis Zaphiris. Their emails are as follows:

makayla.Lewis.1@soi.city.ac.uk
steph@soi.city.ac.uk
panayiotis.zaphiris@cut.ac.cy

If you wish to complain

If there is an aspect of the study, which concerns you, you may make a complaint. City University London has established a complaints procedure via the Secretary to the Research Ethics Committee. You may phone 020 7040 3040 and ask to speak to the Secretary of the Ethics Committee. Alternatively, you may write to:

Anna Ramberg
Secretary to Senate Ethics Committee
CRIDO
City University
Northampton Square
London
EC1V 0HB
Email: anna.ramberg.1@city.ac.uk

Please inform the Secretary that the name of the study is An in-context observational field study: An examination of online social networks use among adults with Cerebral Palsy.
A.2.5 Adult informed consent form

Project Title: An in-context observational field study: an examination of online social network use among adults with Cerebral Palsy.

In order to confirm your consent/agreement, please tick the boxes as appropriate and sign at the foot of the form.

The research study has been explained to my satisfaction
I consent to completing the Pre-Interview Questionnaire
I consent to be observed 3 times over 3 consecutive weeks
I consent to be interviewed after each observation
I understand that I may withdraw from the study at any point
I understand that I may refrain from answering any question that I regard as being sensitive, personal or intrusive.
I consent to my observations being audio-recorded, video-recorded, photographed, hand-drawn and noted.
I consent to my interviews being audio-recorded and video-recorded.
I understand that I may request recordings to be suspended temporarily or terminated at any point
I understand and am satisfied with the arrangements for safeguarding my identity, the individual(s) at the other terminal(s) and support individual(s).
I understand and am satisfied with the arrangements for protecting my data.
I consent to photographs and video-recordings being used as part of the Principal Investigator (Makayla Lewis) PhD (presentations and publications).

Name: ........................................................................................................ (please print)
Signature: ................................................................................................. Date: .................................................................

Once completed, please return this form in the envelope provided. You may wish to keep a copy for your records.

Centre for Human-Computer Interaction Design
School of Informatics, City University London
Northampton Square, London EC1V 0HB
Tel: +44 (0) 20 7040 8994; Fax: +44 (0)20 7040 8859;
Email: Makayla.Lewis.1@soi.city.ac.uk

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
A.2.6 Adult informed consent form for support individual

**Project Title:** An in-context observational field study: an examination of online social network use among adults with Cerebral Palsy.

In order to confirm your consent/agreement, please tick the boxes as appropriate and sign at the foot of the form.

The research study has been explained to my satisfaction  
I consent to completing the Pre-Interview Questionnaire  
I consent to be observed 3 times over 3 consecutive weeks  
I consent to be interviewed after each observation  
I understand that I may withdraw from the study at any point  
I understand that I may refrain from answering any question that I regard as being sensitive, personal or intrusive.  
I consent to my observations being audio-recorded, video-recorded, photographed, hand-drawn and noted.  
I consent to my interviews being audio-recorded and video-recorded.  
I understand that I may request recordings to be suspended temporarily or terminated at any point  
I understand and am satisfied with the arrangements for safeguarding my identify, the individual(s) at the other terminal(s) and support individual(s).  
I understand and am satisfied with the arrangements for protecting my data.  
I consent to photographs and video-recordings being used as part of the Principal Investigator (Makayla Lewis) PhD (presentations and publications).

I believe that ………………………understands the above research study and gives her/his consent voluntarily

Name: ......................................................................................(please print)

Signature....................................................................................

Date:......................................................

Address:..........................................................................................................

---

**Centre for Human-Computer Interaction Design**  
School of Informatics, City University London  
Northampton Square, London EC1V 0HB  
Tel: +44 (0) 20 7040 8994; Fax: +44 (0)20 7040 8859;  
Email: Makayla.Lewis.1@soi.city.ac.uk

Makayla Miranda Lewis, PhD in Human-Computer Interaction  
City University London, Centre for HCI Design
Project Title: An in-context observational field study: an examination of online social network use among adults with Cerebral Palsy.

In order to confirm your consent/agreement, please tick the boxes as appropriate and sign at the foot of the form.

The research study has been explained to my satisfaction

I understand that I may withdraw from the study at any point

I consent to my presence in observations being audio-recorded, video-recorded, photographed, hand-drawn and noted.

I consent to my presence in interviews being audio-recorded and video-recorded.

I understand that I may request recordings to be suspended temporarily or terminated at any point

I understand and am satisfied with the arrangements for safeguarding support individual(s).

I understand and am satisfied with the arrangements for protecting my data.

I consent to photographs and video-recordings that contain my image being used as part of the Principal Investigator (Makayla Lewis) PhD (presentations and publications).

Name: .................................................................................. (please print)

Signature: ............................................................................... Date: ..............................................

Once completed, please return this form in the envelope provided. You may wish to keep a copy for your records.
### Observation Session Notes

**Observation Study Information**

- **Participant Unique Identifier:**  
- **Observation Session Date:**  
- **Observation Start Time:**  
- **Observation End Time:**  
- **Video Recording File Name:**  
- **Audio Recording File Name:**  
- **Images (Photographs & Drawings) File Name:**

**Observation Session Notes:**

<table>
<thead>
<tr>
<th>Notes taken by:</th>
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<td>Date:</td>
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<td>Signature:</td>
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Centre for Human-Computer Interaction Design  
School of Informatics, City University London  
Northampton Square, London EC1V 0HB  
Tel: +44 (0) 20 7604 8994; Fax: +44 (0) 20 7604 8859;  
Email: makayla.lewis.10@city.ac.uk
Observation Session - Interview Notes

OBSERVATION STUDY INFORMATION

Participant Unique Identifier: ..................................................
Observation Session Date: ..................................................
Interview Start Time: ..................................................
Interview End Time: ..................................................
Video Recording File Name: ..................................................
Audio Recording File Name: ..................................................

INTERVIEW QUESTIONS:

Q1. What goals did you attempt to complete during the observation session?
Q2. How did you feel when you attempted to complete said goals?
Q3. Did you encounter any problems? (if so, How did you feel when said problems occurred?)

INTERVIEW NOTES:

Notes taken by: ..................................................
Date: ..................................................
Signature: ..................................................

Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
A.2.9 Recruitment list

**Recruitment List**

*Project Title:* An in-context observational field study: an examination of online social network use among adults with Cerebral Palsy.

*Investigator:* Makayla Miranda Lewis, [Makayla.Lewis.1@soi.city.ac.uk](mailto:Makayla.Lewis.1@soi.city.ac.uk), (+44) 7 960 430144

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<thead>
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Tel: +44 (0) 20 7040 8994; Fax: +44 (0) 20 7040 8659;  
Email: Makayla.Lewis.1@soi.city.ac.uk

Makayla Miranda Lewis, PhD in Human-Computer Interaction  
City University London, Centre for HCI Design
A.3 Study Three: Longitudinal Twitter monitoring and analysis (chapter 5)

A.3.1 Category consistency check: codebook

Note: All tweets must be coded as either a “Sentiment” Positive, “Sentiment” Negative or “Sentiment” Neutral.

<table>
<thead>
<tr>
<th>No.</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>“Sentiment” Positive</td>
<td>Tweets were the overall attitude is positive</td>
</tr>
<tr>
<td>2</td>
<td>“Sentiment” Negative</td>
<td>Tweets were the overall attitude is negative</td>
</tr>
<tr>
<td>3</td>
<td>“Sentiment” Neutral</td>
<td>Tweets were the overall attitude is neutral</td>
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<tr>
<td>4</td>
<td>“Question” What</td>
<td>Tweets were a question is asked or answered related to what #newtwitter is</td>
</tr>
<tr>
<td>5</td>
<td>“Question” When</td>
<td>Tweets were a question is asked or answered related to when #newtwitter is available</td>
</tr>
<tr>
<td>6</td>
<td>“Question” How</td>
<td>Tweets were a question is asked or answered related to how to get #newtwitter</td>
</tr>
<tr>
<td>7</td>
<td>“Question” Who</td>
<td>Tweets were a question is asked or answered related to who has #newtwitter</td>
</tr>
<tr>
<td>8</td>
<td>“Change” Explicit</td>
<td>Tweets were reference is explicitly made to change (process twitter used, feelings regarding change or intended actions)</td>
</tr>
<tr>
<td></td>
<td>Note: word(s) Change, Changing, Changed must be present</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>“Change” non-Explicit</td>
<td>Tweets were reference is not explicitly made to change (process twitter used, feelings regarding change or intended actions)</td>
</tr>
<tr>
<td>10</td>
<td>“User Interface” Suggestion</td>
<td>Tweets were reference is made to the user interface or features in terms of suggestions for improvements or features</td>
</tr>
<tr>
<td>11</td>
<td>“User Interface” Problem</td>
<td>Tweets were reference is made to the user interface or features in terms of problems</td>
</tr>
<tr>
<td>12</td>
<td>Comparison</td>
<td>Tweets were reference is made to other API’s, systems or websites</td>
</tr>
<tr>
<td>13</td>
<td>“Type” Spam</td>
<td>Tweets were no reference is made to #newtwitter but the hashtag is inappropriately used</td>
</tr>
</tbody>
</table>

A.3.2 Category consistency check: coder dataset

@henrique_bm <http://twitter.com/henrique_bm> aguardamos o lançamento do novo twitter #NewTwitter
MEMO: Translation P8-002
we await the launch of the new twitter

@arturogoga <http://twitter.com/arturogoga> #NewTwitter, donde estás que no te veo! :(  
MEMO: Translation P8-003  (Super, 18/02/2011 15:42:10)  
# NewTwitter, where you have not seen you!

@jimmyandrade <http://twitter.com/jimmyandrade> #NewTwitter - É verdade, um novo twitter está chegando:
MEMO: Translation P8-004  (Super, 18/02/2011 15:43:19)  
# NewTwitter - True, a new twitter is coming: url : And I'm walking away, kisses!

MEMO: Translation P8-006  (Super, 18/02/2011 15:45:09)
OK. Let's wait. I need to test the #NewTwitter. Face gives one chills. Two, actually. And a bet.

@ernestsf <http://twitter.com/ernestsf> @lafeeer ¡hola! yo acá enterandome del #newTwitter

MEMO: Translation P8-007 (Super, 18/02/2011 15:46:42)

hello! I here learning about the #newTwitter

@heliopaz <http://twitter.com/heliopaz> RT @joaosergio: uma funcionalidade que o #newtwitter deveria ter: filtro

MEMO: Translation P8-012 (Super, 18/02/2011 15:47:43)

a feature that should have newtwitter #: filter

@marina77 <http://twitter.com/marina77> Perche' parlate tutti di #newtwitter? E' cambiata l'interfaccia ufficiale del sito per caso?

MEMO: Translation P8-014 (Super, 18/02/2011 15:48:45)

Why '#newtwitter all speak of? E 'change the interface's official website by chance?

@Alex_Rivas18 <http://twitter.com/Alex_Rivas18> ¡Una nueva experiencia de Twitter está a punto de llegar! Aprende más... #NewTwitter

MEMO: Translation P8-016 (Super, 18/02/2011 15:49:36)

A new experience of Twitter is about to arrive! Learn more ... # NewTwitter

@beatrizsays <http://twitter.com/beatrizsays> gostei do #newtwitter! haha

MEMO: Translation P8-020 (Super, 18/02/2011 15:50:51)

gostei do #newtwitter! haha

@martini_seco <http://twitter.com/martini_seco> O videozinho ficou ótimo, só falta ver se presta mesmo. <http://twitter.com/newtwitter> #newtwitter

MEMO: Object_URL P8-028 (Super, 22/02/2011 12:45:33)

New twitter blog. The little video was great, just need to see if it pays.

@EuAindaIrei <http://twitter.com/EuAindaIrei> Estamos todos torcendo para que o #NewTwitter não seja uma Bosta que nem o novo Orkut e o novo Formspring #Oremos

MEMO: Translation P8-032 (Super, 18/02/2011 15:52:40)

We're all rooting for the #NewTwitter not a dung that neither the new Orkut and the new Formspring Pray

@yuran2 <http://twitter.com/yuran2> RT @twj: Τετες βλέπω στο Twitter που να είναι σε απόλυτα αρρενωπό #NewTwitter

MEMO: Translation P8-033 (Super, 18/02/2011 15:53:35)
Just as good without having to create a website for using the Web, Twitter has to realize the value, there is no need to tweet.

@nascentejunior <http://twitter.com/nascentejunior> RT @Suidedos: Ual @carol. Confesso que ainda não prestei atenção para ver o que tem de novo no twitter! De qualquer modo, #Newtwitter! :D

MEMO: Translation P8-037  (Super, 18/02/2011 15:54:13)
Ual @ carol. I confess I have not watched to see what's new on twitter! Anyway, # Newtwitter! : D

@pedrocalebe. Ouvir dizer q o Twitter ta pra mudar, tomara q não aconteça o mesmo q aconteceu com o novo orkut #NewTwitter

MEMO: Translation P8-039  (Super, 18/02/2011 15:54:57)
Ou ta hear Twitter for change, hopefully not happen the same happened with the new q # NewTwitter orkut

@Gorillini <http://twitter.com/Gorillini> Parece que vai ser tudo junto e misturado no novo @twitter <http://twitter.com/newtwitter> #NewTwitter

MEMO: Object_URL P8-040  (Super, 22/02/2011 12:46:17)
new twitter blog looks like it'll be all mixed together and the new @ twitter

@Littyane <http://twitter.com/Littyane> #newtwitter ?! Anciosa pra ver as novidades.

MEMO: Translation P8-043  (Super, 18/02/2011 15:56:45)
# Newtwitter?! Anxious to see what's new.

@felipefromchile <http://twitter.com/felipefromchile> Conociendo el #newtwitter. Descúbrano aqui : <http://bit.ly/d74EkF>

MEMO: Object_URL P8-044  (Super, 22/02/2011 12:47:19)
Meet the new Twitter.com - blog

@maxziller <http://twitter.com/maxziller> #NewTwitter? Tô com medo de a atualização do Twitter ser tão boa quanto as do Orkut!

MEMO: Translation P8-047  (Super, 18/02/2011 15:58:15)
# NewTwitter? I'm afraid to update Twitter be as good as the Orkut!

@igorrhamon <http://twitter.com/igorrhamon> The #newtwitter vem por ai gente! Quem retwitar vai ganhar um dos três convites que tenhu! =P <http://twitter.com/newtwitter>

MEMO: Translation P8-049  (Super, 18/02/2011 15:58:54)
The # newtwitter comes around people! Retweet Who will win one of three calls that tenhu! = P

@drisilvestre <http://twitter.com/drisilvestre> RT @EuAindalrei: 99% do twitter está falando sobre o #NewTwitter, se você faz parte dos 99% e está muuuito ancioso para ver dê RT !

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
99% of twitter is talking about the # NewTwitter, if you are part of the 99% and is sooo excited to see the RT!

@emiluz <http://twitter.com/emiluz>: RT @twitterillo: ¿Qué opinan del nuevo Twitter? ¿les gusta?
<http://bit.ly/aqTHFh> #newtwitter

What about the new Twitter? Do you like?

@voko <http://twitter.com/voko>: RT @twedasuke: 新しいTwitter.comへようこそ：twitter.com/newtwitter RT @Twitter Meet the new Twitter.com twitter.com/newtwitter #NewTwitter

MEMO: Translation P8-063 (Super, 18/02/2011 16:02:41)

welcome to new twitter

@yang8 <http://twitter.com/yang8>: RT @hitoshi: #NewTwitter のUIはあまりに親切でリッチになりすぎて、オフィシャルっぽくないね。オフィシャルウェブはもっと素っ気ない方が「ぼい」気がした。(^^)

Something, but this is the UI # NewTwitter be too kind and too rich, I seem like official. If you have a dry Ofisharueebu more "dumping" of mind. (^^)

@polware <http://twitter.com/polware>: Entonces, ahora Twitter se va dividir entre los que aman y odian el #NewTwitter (?)

MEMO: Translation P8-071 (Super, 18/02/2011 16:03:43)

So now Twitter will be divided between those who love and hate the # NewTwitter (?)

@rubenescaray <http://twitter.com/rubenescaray>: #NewTwitter una experiencia mas rapida,ordenada y profunda

MEMO: Translation P8-083 (Super, 18/02/2011 16:04:42)

# NewTwitter experience faster, orderly and thorough

@felipem_ab <http://twitter.com/felipem_ab>: HAHHAAH RT @quantotempodura: O #NewTwitter é 100% DemFree?

MEMO: Translation P8-087 (Super, 18/02/2011 16:05:26)

New Twitter 100% free

@CatyPichara <http://twitter.com/CatyPichara>: @macasarmiento ¿Quieren saber cómo será en nuevo #twitter? <http://twitter.com/newtwitter> #newtwitter

MEMO: Translation P8-092 (Super, 18/02/2011 16:06:33)

Want to know how to be in new # twitter?
@araujocarlinhos <http://twitter.com/araujocarlinhos> RT @joaosergio: uma funcionalidade que o #newtwitter deveria ter: filtro

MEMO: Translation P8-093  (Super, 18/02/2011 16:07:11)

a feature that should have newtwitter #: filter

@detsuko <http://twitter.com/detsuko> gente o #newtwitter vai ter colheita feliz ,vamos ter comunidades e mais perfis fakes ,e

MEMO: Translation P8-094  (Super, 21/02/2011 16:22:01)

We'll have the # newtwitter happy harvest, we will have fake profiles and more communities, and

@sam_iupi <http://twitter.com/sam_iupi> RT @vaisonhando: O Twitter está sendo atualizado. Vem ai o #NovoTwitter Veja o vídeo oficial: http://migre.me/1id3z <- #NewTwitter

MEMO: Translation P8-096  (Super, 18/02/2011 16:08:28)

Twitter is being updated. Here comes # New Twitter See the official video: http://migre.me/1id3z <- # NewTwitter

@MrPanqueque <http://twitter.com/MrPanqueque> @PonyNe PonyNe #NewTwitter Que Google Adquirió Twiiter? Wow. ◄--- Chingale, asi estaría el billetón !

MEMO: Translation P8-100  (Super, 18/02/2011 16:09:33)

# NewTwitter Google acquired Twitter? Wow. Chingalé, so would the brilliant!

@bponk <http://twitter.com/bponk> Se viene el new Twitter <http://t.co/96BWcpl> #newtwitter

MEMO: Translation P8-001  (Super, 21/02/2011 15:40:48)

Here comes the new Twitter

@xCharityMo <http://twitter.com/xCharityMo> Ima try the #NewTwitter even tho it looks confusing

@CateOwen <http://twitter.com/CateOwen> #newtwitter will go out to a couple thousand people today, will be rolled out to all "as quickly as possible"

@BornThisWayBaby <http://twitter.com/BornThisWayBaby> #newtwitter I Don't See Shit New About Twitter It Still Be Acting Foolish !

@dariusmiranda <http://twitter.com/dariusmiranda> Meet the new twitter.com #newtwitter - <http://twitter.com/newtwitter>

@sarahdh2 <http://twitter.com/sarahdh2> watching #newtwitter live stream event since i too didn't get new twitter, not just you @dens
@john__juan <http://twitter.com/john__juan> <http://twitter.com/newtwitter> --- We'll just have to fuckin' see, #NewTwitter.

@TheCabVA <http://twitter.com/TheCabVA> Hmm what is the #NewTwitter exactly?

@teachforever09 <http://twitter.com/teachforever09> The new Twitter looks really interesting--I'm wondering when I'll see some of the new features. #newtwitter

@MarcRizzi <http://twitter.com/MarcRizzi> @cjyoung67 I dont see any differences with #newtwitter?

@smak67 <http://twitter.com/smak67> Meet the new Twitter: <http://rww.to/b733GS> #NewTwitter

@btaylorSEO <http://twitter.com/btaylorSEO> RT @JoannaLord here is a shot of the new Search Box built into the platform. @starbucks I used you :) #newtwitter <http://twitpic.com/2ohnf6>

@grahamtracey <http://twitter.com/grahamtracey> #NewTwitter looks pretty amazing, with a great design aesthetic. Excited to try it out!

@ericjunior <http://twitter.com/ericjunior> I keep logging out and logging back in to see if my account has been updated with the #newtwitter

@luckthelady <http://twitter.com/luckthelady> Kinda reminds me of Flipboard, actually. #newtwitter

@provirtual <http://twitter.com/provirtual> RT @twitter: Today we're launching a new Twitter.com—a faster, easier, and richer way to discover what's new in your world. #NewTwitter

@davidcollantes <http://twitter.com/davidcollantes> I don't need the #newtwitter, I got #Tweetie (then, when nobody looks or listens: "Please, give me the new Twitter, please!")

@CrosseyeJack <http://twitter.com/CrosseyeJack> WooT New twitter is on its way @twitter @ev <http://twitter.com/newtwitter> - I want it NOW.... gimme gimme gimme :-p #NewTwitter

@episod <http://twitter.com/episod> RT @dougw: Are you a publisher and want Twitter to bring your content into #NewTwitter? Reach out to us at contentpartnerships@twitter.com.

@Matt1129 <http://twitter.com/Matt1129> RT @iTweetFacts: The NEW TWITTER is getting ready to be launched! R-T if you're excited for the NEW UPGRADES. #NewTwitter

@imspacebound i love #newtwitter

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Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
@omgitsralph <http://twitter.com/omgitsralph> #NEWTWITTER IS SEXY.

@markadamhfx <http://twitter.com/markadamhfx> Want #NewTwitter. #Howdoesigetit?

@jonathangarcia <http://twitter.com/jonathangarcia> Love the #newtwitter! Way to go guys!

@JordonHon <http://twitter.com/JordonHon> #newtwitter ?! whattt.

@Finchany90 <http://twitter.com/Finchany90> Pretty sweet #NewTwitter

@3Mobile_help <http://twitter.com/3Mobile_help> Anyone else looking forawrd to #newtwitter?? RT @Twitter Meet the new Twitter.com twitter.com/newtwitter

@EdMourao <http://twitter.com/EdMourao> RT @buddaboy: RT @josedramirez: Meet the new Twitter: <http://rww.to/b733GS> #NewTwitter via @RWW

@dmccallie RT @DonMacAskil: @ev Billions of @SmugMug photos and videos would love to play nice with #newtwitter. Pretty please?

@TWEETIE11334 @TWEETIE11334 thank you #newtwitter

@CynthiaDBD <http://twitter.com/CynthiaDBD> RT @twitter: Today we’re launching a new Twitter.com-a faster, easier, and richer way to discover what’s new in your world. #NewTwitter

@stresscase <http://twitter.com/stresscase> Q&A at bottom RT @RWW: The new Twitter.com will be released to select users’ first. Live blog: <http://rww.to/cwHRaq> #NewTwitter

@roblynch16 <http://twitter.com/roblynch16> I want #NewTwitter NOW!

@MonsterSmiles <http://twitter.com/MonsterSmiles> What's different on #NewTwitter ???

@KReeem_Kid <http://twitter.com/KReeem_Kid> RT @twitter: Today we’re launching a new Twitter.com-a faster, easier, and richer way to discover what’s new in your world. #NewTwitter

@AbbieMF <http://twitter.com/AbbieMF> I want the new @Twitter now!!! Why do you tease me so!!! #newtwitter

@CuatroOcho <http://twitter.com/CuatroOcho> RT @ev: Today we’re launching a new Twitter.com-a faster, easier, and richer way to discover what’s new in your world. #NewTwitter

Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
@gunniho <http://twitter.com/gunniho> @thematharris congratulations on #newtwitter - looking forward to testing it out :)  

@MelissaHourigan <http://twitter.com/MelissaHourigan> Yeah, I got the #newtwitter - so cool !!!!!  

@fwopah <http://twitter.com/fwopah> Was totally expecting @twitter to rollout the #newtwitter today. Oh well.  

@sm <http://twitter.com/sm> To be clear, #NewTwitter is rolling out gradually. Fear not, everyone will get it eventually! cc @iyengar  

@Jonpro <http://twitter.com/Jonpro> anyone have the #newtwitter yet? if so, how do you like it? #tentativelyexcited  

@Lauren_Hannah <http://twitter.com/Lauren_Hannah> @mattsingley That is an excellent question. You'd think they'd perfect what they already have before adding new features. #NewTwitter  

@unlikeanyothers <http://twitter.com/unlikeanyothers> RT @twitter: Today we're launching a new Twitter.com-a faster, easier, and richer way to discover what's new in your world. #NewTwitter  

@Roddy_Little <http://twitter.com/Roddy_Little> RT @twitter: Today we're launching a new Twitter.com-a faster, easier, and richer way to discover what’s new in your world. #NewTwitter  

@b_zak <http://twitter.com/b_zak> not sure about you, but I'm excited about the #NewTwitter  

@DarthWeiner75 <http://twitter.com/DarthWeiner75> If we get a #newtwitter and a new blue birdie... do we get a #newfailwhale?  

@aspenjfm <http://twitter.com/aspenjfm> RT @sacca: The Twitter redesign kicks ass. #newtwitter  

@SaraSantiago G of the @MobileInterns just insisted on watching the #newtwitter video. Twice. #stellarparenting  

@jethrocarr <http://twitter.com/jethrocarr> RT @ajobbins Oooh, #NewTwitter looks good! <http://twitpic.com/2ohltz/full> - Can't wait to get it  

@CuatroOcho <http://twitter.com/CuatroOcho> RT @twitter: Today we’re launching a new Twitter.com-a faster, easier, and richer way to discover what’s new in your world. #NewTwitter  

@grantdb <http://twitter.com/grantdb> RT @zaibatsu: Meet the new Twitter.com <http://bit.ly/aqTHF> #NewTwitter via @Sung_H_Lee  

@pabloSOV <http://twitter.com/pabloSOV> Where is it?? #NewTwitter
Finally #newtwitter is trending. IT TOOK ITS TIME.

Ok I'm officially scared for the #newtwitter

The #NewTwitter just stole my wife...

#NewTwitter not affect/not integrated w/ 3rd party apps 4 Twitter like Tweetdeck or Seesmic, which already have a lot of those features ;)

And here is the Twitter video: LOVE IT! #newtwitter

Did anyone get the #NewTwitter?

a new dawn, it's a new day, it's a #newtwitter for me. And I'm feelin' good. RT @dsa

RT @twitter: Today we're launching a new Twitter.com-a faster, easier, and richer way to discover what's new in your world. #NewTwitter

RT @ev: Today we're launching a new Twitter.com-a faster, easier, and richer way to discover what's new in your world. #NewTwitter

Enjoying the use of Freelance Whales music in the #newtwitter video. Great album, on iTunes here:

Darn I haven't got the #NewTwitter yet you know I'm gonna be impatient.

El blog de Twitter ya informan de las novedades #Nuevo #NewTwitter

Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design

@whoisgabriela <http://twitter.com/whoisgabriela> o que é esse negocio do #newtwitter? to por fora........

MEMO: Translation P8-031 (Super, 21/02/2011 10:13:54)
what is this business of newtwitter #? to the outside .......

A.3.3 Statistical charts based on event sampling category-document table
Cerebral palsy, online social networks and change.

Sentiment

~Change: Comparing States

Change Verbalised and Non-Verbalised

~Change: Comparing States

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

Change method

~Change: Non-Acceptance

~Change: Transitory Acceptance

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
~Change: Prevented

Help

User Interface: Problems

Problem types

Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
User interface problems: type

Questions

User Interface: Suggestions

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
A.4 Study Three: Longitudinal Facebook monitoring and analysis (chapter 6)

See appendix b section b.4 for sample data.
A.5 Study Five: Questionnaire (chapter 7)

A.5.1 Offline questionnaire

How does changing websites effect you? (Survey)

My name is Makayla Lewis (makayla.lewis.1@city.ac.uk) and I am a PhD student at City University London, Centre of HCI Design. I am carrying out a survey that explores the affects of changing websites on users of social media e.g. Facebook and Twitter; and I am highly interested in obtaining your opinions. You may request an overall summary of the results collated through this survey by providing your email in the box on the last page. All surveys will be kept confidential. All identifying statements or features (where an email address is provided) will be removed from the surveys before publication within my PhD.

Instructions: This survey will only take a few minutes of your time, please do attempt to answer every question. If you would prefer to complete this survey online, please go to: http://svy.mk/makayla.lewis

1. Are you a ...? (please tick all that apply)
   - End-user
   - Designer
   - Developer
   - Researcher
   - Other, please specify: ________________________________

2. Do you have a disability?
   - Yes
   - No

3. Do you use any assistive technologies? (e.g. screen readers or joystick)?
   - Yes
   - No

Please consider a RECENT website change (e.g. Facebook, Twitter or any other website) you have experienced before answering the following questions.

4a. Have you experienced a website change within the last 6 months? (e.g. tasks or interface design)
   - Yes
   - No

4b. Briefly describe the change you experienced?

4c. How did you feel about the change you experienced?

4d. Did you continue to use the website after the change was implemented?
   - Yes
   - No

Please Turn Over →
4e. If YES, briefly describe why you continued to use the website?


4f. If NO, briefly describe why you stopped using the website?

5. Generally, how significant are the following in influencing your acceptance of a website change?

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<td>Opinions of others experiencing the change</td>
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6. Can you highlight any other factors which are important in influencing your acceptance of a website change?


If you would like a summary of the findings from this survey please provide your email address:

__________________________________________

THANK YOU FOR YOUR TIME.

A.5.2 Online questionnaire

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
1. Introduction

My name is Makayla Lewis (makayla.lewis.1@city.ac.uk) and I am a PhD student at City University London, Centre for HCI Design. I am carrying out a survey that explores the effects of changing websites on users of social media e.g., Facebook and Twitter, and I am highly interested in obtaining your opinions.

You may request an overall summary of the results collated through this survey by contacting: makayla.lewis.1@city.ac.uk

All surveys will be kept confidential. All identifying statements or features (where an email address is provided) will be removed from the surveys before publication within my PhD.

Instructions: This survey will only take a few minutes of your time, please do attempt to answer every question.

If you would prefer to complete a paper based version of this survey please contact: makayla.lewis.1@city.ac.uk

1. Do you have a disability?
   - [ ] Yes
   - [ ] No

2. Do you use any assistive technologies? (e.g., screen readers or joystick)
   - [ ] Yes
   - [ ] No

2. Your recent experiences of a website that has changed

Please consider a RECENT website change (for example: Facebook, Twitter or any other website) you have experienced before answering the following questions.

3. Have you experienced a website change within the last 5 months? (for example: task structure or interface design)
   - [ ] Yes
   - [ ] No

4. Briefly describe the change you experienced:

5. How did you feel about the change you experienced?

6. Did you continue to use the website after the change was implemented?
   - [ ] Yes
   - [ ] No

7. If you answered YES to question 6. Briefly describe why you continued to use the website?

8. If you answered NO to question 6. Briefly describe why you stopped using the website?
3. General Opinion Of Change

9. Generally, how significant are the following in influencing your acceptance of a website change?

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10. Can you highlight any other factors which are important in influencing your acceptance of a website change?

[Blank space for input]
Appendix B - Sample data

This appendix is divided into five parts that represent each study: exploratory interviews, in-context field observations, longitudinal monitoring and analysis (Twitter and Facebook) and questionnaire (see chapter 1 section 1.5 for a summary of the studies). It will provide sample raw data used to carryout the studies.
### B.1 Study One: Exploratory interviews (chapter 3)

#### B.1.1 Primary-documents table

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Cerebral palsy, online social networks and change.

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Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

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Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

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B.1.2 Interview

All (134) quotations from primary document: P 1: MS01.txt (E:\MS01_Transcription_with Line Numbersv3.txt)

P 1: MS01.txt - 1:3 [MS01: So I have to wear a speci..] (31:31) (VL)
Codes:  "Help" Mobility Device
No memos

MS01: So I have to wear a special calliper to walk

P 1: MS01.txt - 1:6 [so that’s why I use a calliper..] (43:43) (VL)
Codes:  "Help" Mobility Device
No memos

so that’s why I use a calliper and two sticks

P 1: MS01.txt - 1:15 [INTERVIEWER: Why did you pick ..] (129:131) (VL)
Codes:  [Technology Specification]
No memos

INTERVIEWER: Why did you pick a laptop or like a normal big computer?

MS01: Well, I had a normal computer but I just wanted to change so I decided to use a laptop

P 1: MS01.txt - 1:19 [INTERVIEWER: You do use the In..] (89:91) (VL)
Codes:  [Internet Use]
No memos

INTERVIEWER: You do use the Internet

MS01: Yes

P 1: MS01.txt - 1:20 [INTERVIEWER: You do use online..] (93:95) (VL)
Codes:  [On-line Communication Use]
No memos

INTERVIEWER: You do use online communities

MS01: Yes

P 1: MS01.txt - 1:21 [you do use a computer. MS01: Y..] (85:88) (VL)
Codes:  [Computer Use]
No memos

you do use a computer.

MS01: Yeah

P 1: MS01.txt - 1:31 [INTERVIEWER: OK and hmm, who go..] (193:203) (VL)
Codes:  "Help" Assistance & Support
No memos

INTERVIEWER: OK and hmm, who got you this laptop? Who taught you how to use it? Or did you teach yourself?

MS01: oh no no no, hmm… Iris did?

INTERVIEWER: who would you say Iris was?

MS01: hmm… from Nova and she the hmmm director

INTERVIEWER: what is Nova?

MS01: Nova is a place were you can go, and learn how to use a computer if you have never used it before

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
INTERVIEWER: A calliper what, what is a calliper?
MS01: A calliper is a like, it’s like a splint

INTERVIEWER: Okay
MS01: And what does that do?

INTERVIEWER: Oh it just supports my leg so I don’t, so my leg does not give way
MS01: Okay

INTERVIEWER: I notice that you in a wheelchair do you use that often?
MS01: Yes

INTERVIEWER: When you say often, how often would you say?
MS01: Long distance

INTERVIEWER: Okay, so the first question. Did indicate that you use a computer
MS01: Yes

INTERVIEWER: What type of computer do you use?
MS01: Vasta

INTERVIEWER: Vista?
MS01: Vista

INTERVIEWER: What type of computer is it? Is it like a stand-a-lone or is it a laptop, is it something you carry around
MS01: it’s a laptop

INTERVIEWER: it’s a laptop?
MS01: Yeah

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
INTERVIEWER: Why did you pick a laptop or like a normal big computer?

MS01: Well, I had a normal computer but I just wanted to change so I decided to use a laptop

INTERVIEWER: What influenced that change?

MS01: Well the influence was, it wasn’t so bulky and you had enough room in your house to put it in, instead of having a PC which was bulky and all that it, it was just to much.

INTERVIEWER: What makes you think you would drop it?

MS01: Because of my… because I use two sticks and I can’t carry a laptop

INTERVIEWER: Oh golly, you seem to be in a laughing mood today Ms. Lewis aren’t you?

MS01: sorry, yes, sorry

INTERVIEWER: don’t worry about it I think its just nerves with the camera and everything, its making you laugh.

MS01: Laughs

INTERVIEWER: Okay, so when would you say you first learnt to use a computer?

MS01: hmm… I know about computer since 2000 no hmm 1998

MS01: but I never troubled it I was afraid of them

INTERVIEWER: why was you a afraid of them?

MS01: because I had never really seen a computer before

INTERVIEWER: before 1998, ok, hmm that’s interesting. Do you still have that fear now?
MS01: Oh no, I am more confident I will try anything

INTERVIEWER: ok so, your disability doesn’t really allow for you to go down a lot. OK, do you require any other help, if your computer wasn’t working would you work it out for yourself? Or would you go online? Or would you ask a physical person?

MS01: ok, the first thing I would do is I would read and if I couldn’t find out I would ask someone

INTERVIEWER: who that person usually be?

MS01: hmm my daughter

INTERVIEWER: Ok then, would you say she has adequate knowledge of computers?

MS01: oh yes

I done a leaflet

so I made a leaflet

INTERVIEWER: Ok then, when you made the leaflet a few days ago and the internet today were there any problems

MS01: No

INTERVIEWER: Ok, so there were no problems at all

MS01: hmm, when I done the leaflet

INTERVIEWER: When you done the leaflet or when you were online

MS01: oh yea yea yea, I had, there was a bit of a problem because at first when I got the laptop I hmm I didn’t understand it because it is different from the PC I use so I had to figure out what it was so eventually I got to know every part of the you know what I needed to do

INTERVIEWER: Ok then, when you made the leaflet a few days ago and the internet today were there any problems

MS01: No

INTERVIEWER: Ok then, when you made the leaflet a few days ago and the internet today were there any problems

MS01: No
MS01: oh yea yea yea, I had, there was a bit of a problem because at first when I got the laptop I hmm I didn’t understand it because it is different from the PC I use so I had to figure out what it was so eventually I got to know every part of the you know what I needed to do

INTERVIEWER: Ok, so would you say in the last lets say, you said you have been using a computer since 1998. Since 1998 to now has there been a major change to how you use a computer?

MS01: Well it changed but it needs to be changed a bit more

INTERVIEWER: Well I mean in terms of how you particularly use a computer, I mean the thing that you are doing now different from what you were doing then?

MS01: Yes

INTERVIEWER: Like what?

MS01: It is more advanced, than it is then because remember technology goes gets really far now than it was then

INTERVIEWER: OK would you say in terms of, you said that you did a leaflet the other day and you were on the Internet today for 20 minutes, Was going on the Internet and doing leaflets did you used to do those things 6 months ago?

MS01: Hmm no not really

INTERVIEWER: what did you used to do?

MS01: I did go on the Internet but I didn’t really explore now I explore more

INTERVIEWER: What do you mean by explore?

MS01: because you know the hmm the server was very slow and it would just get me annoyed so I wouldn’t go on it, but now I have changed I use a different company the server is more faster so I enjoy it more

INTERVIEWER: OK, that is interesting, so one of the main reasons why you have changed is because the Internet has gotten faster

MS01: yeah

INTERVIEWER: and that is a benefit to you

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
MS01: Yes

P 1: MS01.txt - 1:98 [MS01: I would have to take my ..] (347:351) (VL)
Codes: ["Help" Mobility Device] [Help]
No memos

MS01: I would have to take my time to get up and use my sticks to gradually walk and it should ease off

INTERVIEWER: ok, so you use sticks as well

MS01: yes

P 1: MS01.txt - 1:99 [MS01: like information especia..] (359:360) (VL)
Codes: [Independence]
No memos

MS01: like information especially if someone can’t read very well, and they don’t really know, and there is not like a personal assistant the would rather be independent for them to work without asking anyone

P 1: MS01.txt - 1:100 [INTERVIEWER: ok the final part..] (353:372) (VL)
Codes: ["Future" Computer Use]
No memos

INTERVIEWER: ok the final part of this section, this set of questions is, how would you like to use a computer in the future

MS01: I would like to use a computer in the future; it should have more tools for disabled people

INTERVIEWER: for example

MS01: like information especially if someone can’t read very well, and they don’t really know, and there is not like a personal assistant the would rather be independent for them to work without asking anyone

INTERVIEWER: so you mean there should be like personal assistants on the actual computer to help you? Or do you mean like a personal assistant like a physical person?

MS01: No it should be a virtual person so that if they have got any enquiries they can actually type in ask the person and they should lead them on especially when you have got a disability you are very independent and you don’t want that so they should really think of disabled people but really they don’t. I think that that has to change

INTERVIEWER: When you say they do not think of disabled people, in terms of you own personal experiences how would you say they don’t think about you?

MS01: OK well I will go into a shop and I say I want this computer but if I haven’t got someone intelligent to go with me to tell me lhm this is the right one this is the not right one the assistant don’t ask you wants the problem, they will sell you anything and it might not be suitable for your needs so their needs to be a lot of training for disabled people buying and how they make it not everybody is the same because they feel let make it all as one we should all except it and I think that is wrong

INTERVIEWER: OK, so you general take on it is more about, I mean its not about the tasks that you are doing it is more about help

MS01: yes

P 1: MS01.txt - 1:101 [INTERVIEWER: so you mean there..] (361:372) (VL)
Codes: ["Help" Assistance & Support] [Help]
No memos

INTERVIEWER: so you mean there should be like personal assistants on the actual computer to help you? Or do you mean like a personal assistant like a physical person?

MS01: No it should be a virtual person so that if they have got any enquires they can actually type in ask the person and they should lead them on especially when you have got a disability you are very independent and you don’t want that so they should really think of disabled people but really they don’t. I think that that has to change

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INTERVIEWER: OK, so you general take on it is more about, I mean its not about the tasks that you are doing it is more about help

MS01: yes

INTERVIEWER: Okay, I was just saying, you indicated. Before we get going on the questions we are just going to quickly go through your pre-test interview questionnaire. You have indicated that you have cerebral palsy is that correct?

MS01: Yes

INTERVIEWER: Do you have any idea of the type of cerebral palsy you have?

MS01:Dip, Dip, Huh

INTERVIEWER: Diplegia

MS01:Yes, Dip, Dip, Diplegia

INTERVIEWER: Yes, that’s okay. What limitations does it give you? Do you have any limitations? I mean do you have any problems?

MS01:Yes, it affects my right leg.

INTERVIEWER: In what way?

MS01:Well, I can’t use it how I would use my, so what what I have got is called dropsy

INTERVIEWER: hmm

MS01: so that makes me limp

INTERVIEWER: Okay

INTERVIEWER: Okay. Right so do you have any problems sitting down?

MS01: No

INTERVIEWER: Standing?

MS01: No not really, as long as I got my sticks

INTERVIEWER: Okay, hmm, do you have any problems with your hands or your arms?

MS01: No

INTERVIEWER: No, so just your legs, your lower limbs

MS01: Yeah
INTERVIEWER: Okay that’s interesting, hmm where do you use your laptop? Hmm, because you have got a laptop, I am wondering do you travel around with it?

MS01: Oh no

INTERVIEWER: Why don’t you travel around with it?

MS01: Just in case I drop it

INTERVIEWER: What makes you think you would drop it?

MS01: Because of my… because I use two sticks and I can’t carry a laptop

INTERVIEWER: Okay that’s interesting, hmm where do you use your laptop? Hmm, because you have got a laptop, I am wondering do you travel around with it?

MS01: Oh no

you can’t carrying a stick and computer, a laptop you know its impossible

INTERVIEWER: It helps with your property size?

MS01: Yes

INTERVIEWER: OK hmm, do you require any help to use a computer? It doesn’t have to be an aid it could be a pointer, it could be screen readers or even a physical person. I have notice that you printer is low down, do you have problems getting to it?

MS01: Yes I have to go on the floor, drop down and get the printer to get the paper out, but hmm I am thinking of another way to get the in a place so that I can reach it

INTERVIEWER: so you need things to be on your level, is that because of your disability? Or just preference?

MS01: because of my disability
INTERVIEWER: When do you use your computer?

MS01: I use it everyday

INTERVIEWER: You say everyday, how long for? If you used it everyday how long for?

MS01: Ok, I would use it up to four hours, that’s four hours in the morning and four hours at night.

INTERVIEWER: Ok, do you have any assistive technologies on your computer? It could be a screen reader, do you use the keyboard on your laptop or do you have an external keyboard?

MS01: I have got an external

INTERVIEWER: why do you use that?

MS01: because it is easier for me

INTERVIEWER: It makes your life easier?

MS01: yeah yeah

INTERVIEWER: OK, why does it make your life easier?

MS01: Because I am tiny, and when you have got a laptop it is really hard to use if you are quite tiny, so I lowered it so it is easier for me to reach

INTERVIEWER: OK, that is interesting, so one of the main reasons why you have changed is because the Internet has gotten faster

MS01: yeah

INTERVIEWER: and that is a benefit to you

MS01: Yes

INTERVIEWER: why is it a benefit to you, I mean in terms of your disability how has the Internet being faster helped you? For example it could be are you sitting at a computer for a less time

MS01: ok the problem is yea if you are setting on at a computer, if your computer is slow and you are sitting on it I have cerebral palsy so it makes me stiff so I would rather let the server go quick so that I don’t have to sit down for a very long time

INTERVIEWER: Ok that’s very interesting, earlier on you mentioned that you are able to sit without problems, so is the way that you sit based on the length of time you sit

MS01: Yes

INTERVIEWER: How long would you say is to long? Before it gets uncomfortable
MS01: To long is about 2 to 3 hours as I won’t be able to move, I won’t be able to move

INTERVIEWER: Ok, in the event that you have sat a computer for 2 to 3 hours and you have gotten that stiff what would you usually have to do?

MS01: I would have to take my time to get up and use my sticks to gradually walk and it should ease off

INTERVIEWER: ok, so you use sticks as well

MS01: yes

MS01: The reason why is you can’t use hmm, you can’t carrying a stick and computer, a laptop you know its impossible so I’d rather have I hmm I place.

INTERVIEWER: Okay so the reason for you getting a laptop is not for hmm, movability it being able to move around its more about size?

MS01: Yes

INTERVIEWER: ok hmm, in terms of you saying you used your computer for 20 minutes today, what did you do?

MS01: Oh, I went to look on Argos I went to see the bargains

INTERVIEWER: and was that online or offline

MS01: It was online

INTERVIEWER: OK so you know how to go on the Internet?

MS01: Yes

INTERVIEWER: Ok, when was the last time you used a computer?

MS01: today

INTERVIEWER: OK, how long did you use it for?

MS01: only for about 20 minutes

INTERVIEWER: Can you describe what you did the last time you used a computer? In terms of the tasks you did? The software you used?

MS01: the last time I used a computer I used windows and I done a leaflet

INTERVIEWER: and you did this today

MS01: no that was the other day, telling one of the residents to stop parking in my parking bay, so I made a leaflet

INTERVIEWER: so what software did you use to do that?

MS01: office

INTERVIEWER: was it spreadsheet, word?
MS01: So anyway, so that’s why I use a calliper and two sticks

INTERVIEWER: A calliper what, what is a calliper?
MS01: A calliper is a like, it’s like a splint
INTERVIEWER: Okay
MS01: And what does that do?
INTERVIEWER: Oh it just supports my leg so I don’t, so my leg does not give way
MS01: Okay

INTERVIEWER: I notice that your in a wheelchair do you use that often?
MS01: Yes
INTERVIEWER: When you say often, how often would you say?
MS01: Long distance

MS01: No not really, as long as I got my sticks

INTERVIEWER: Why did you pick a laptop or like a normal big computer?
MS01: Well, I had a normal computer but I just wanted to change so I decided to use a laptop

INTERVIEWER: Okay that’s interesting, hmm where do you use your laptop? Hmm, because you have got a laptop, I am wondering do you travel around with it?
MS01: Oh no
INTERVIEWER: Why don’t you travel around with it?
MS01: Just in case I drop it
MS01: The reason why is you can’t use hmm, you can’t carrying a stick and computer, a laptop you know its impossible so I’d rather have I hmm I place.

INTERVIEWER: Ok, do you have any assistive technologies on your computer? It could be a screen reader, do you use the keyboard on your laptop or do you have an external keyboard?

MS01: I have got an external

INTERVIEWER: why do you use that?

MS01: because it is easier for me

INTERVIEWER: It makes your life easier?

MS01: yeah yeah

INTERVIEWER: OK, why does it make your life easier?

MS01: Because I am tiny, and when you have got a laptop it is really hard to use if you are quite tiny, so I lowered it so it is easier for me to reach

INTERVIEWER: OK and hmm, who got you this laptop? Who taught you how to use it? Or did you teach yourself?

MS01: oh no no no, hmm… Iris did?

INTERVIEWER: who would you say Iris was?

MS01: hmm… from Nova and she the hmmm director

INTERVIEWER: what is Nova?

MS01: Nova is a place were you can go, and learn how to use a computer if you have never used it before

INTERVIEWER: ok so, your disability doesn’t really allow for you to go down a lot. OK, do you require any other help, if your computer wasn’t working would you work it out for yourself? Or would you go online? Or would you ask a physical person?

MS01: ok, the first thing I would do is I would read and if I couldn’t find out I would ask someone

INTERVIEWER: who that person usually be?

MS01: hmm my daughter

INTERVIEWER: Ok then, would you say she has adequate knowledge of computers?

MS01: oh yes
INTERVIEWER: OK, how long did you use it for?

MS01: only for about 20 minutes

INTERVIEWER: OK, the final part of this section, this set of questions is, how would you like to use a computer in the future

MS01: I would like to use a computer in the future; it should have more tools for disabled people

INTERVIEWER: for example

MS01: like information especially if someone can’t read very well, and they don’t really know, and there is not like a personal assistant the would rather be independent for them to work without asking anyone

INTERVIEWER: so you mean there should be like personal assistants on the actual computer to help you? Or do you mean like a personal assistant like a physical person?

MS01: No it should be a virtual person so that if they have got any enquires they can actually type in ask the person and they should lead them on especially when you have got a disability you are very independent and you don’t want that so they should really think of disabled people but really they don’t. I think that that has to change

INTERVIEWER: When you say they do not think of disabled people, in terms of you own personal experiences how would you say they don’t think about you?

MS01: OK well I will go into a shop and I say I want this computer but if I haven’t got someone intelligent to go with me to tell me hmm this is the right one this is the right one the assistant don’t ask you wants the problem, they will sell you anything and it might not be suitable for your needs so their needs to be a lot of training for disabled people buying and how they make it not everybody is the same because they feel let make it all as one we should all except it and I think that is wrong

INTERVIEWER: OK, so you general take on it is more about, I mean its not about the tasks that you are doing it is more about help

MS01: yes

As you indicated on you pre-interview questionnaire that you do use the internet, you do use the internet don’t you?

MS01: yes

MS01: oh I can I use it email
INTERVIEWER: yes but I mean in terms of your location, where do you do this?

MS01: oh at home

INTERVIEWER: have you ever used the Internet anywhere else?

MS01: oh yeah yeah I use it at the adventure centre it’s a community centre but there internet access is very slow so I would rather do it at home

internet access is very slow so I would rather do it at home

INTERVIEWER: so that what you were saying prior if it is very slow it can make you bones stiff

MS01: yeah so you know if I need information I would rather go home and sort it out myself cause it is very slow I don’t have all day to sit and when the computer can decide to when I am going to move or whatever so

MS01: oh yeah yeah I use it at the adventure centre it’s a community centre but there internet access is very slow so I would rather do it at home

internet access is very slow so I would rather do it at home

INTERVIEWER: so that what you were saying prior if it is very slow it can make you bones stiff

MS01: yeah so you know if I need information I would rather go home and sort it out myself cause it is very slow I don’t have all day to sit and when the computer can decide to when I am going to move or whatever so

INTERVIEWER: OK, when do you usually use it?

MS01: oh I usually I check my before I go to bed and when I get up in the morning because I might have an email

MS01: sometimes google
INTERVIEWER: OK, I mean do you know if it is Internet explorer? Or is it Firefox or do you have any idea

MS01: oh no

INTERVIEWER: OK, I mean do you know if it is Internet explorer? Or is it Firefox or do you have any idea

MS01: oh no

INTERVIEWER: who set it up for you?

MS01: someone set it up

INTERVIEWER: OK, who would that someone be?

MS01: my daughter

INTERVIEWER: OK, so I am gathering from what you have been saying about your daughter, would you say you rely on her to do the technical aspects of your computing or do you do that yourself?

MS01: no no no as long as it is set up I am not a generous so I would rather have someone who knows what they are doing to sort the computer out, I don’t what to spend thousands on a computer and in 10 days or a day I have broken it so I am not that

INTERVIEWER: would you say that you are kind of afraid?

MS01: not afraid by if I don’t understand or anything I am not going to tamper with it and break it

INTERVIEWER: OK that is interesting, back when we were talking about the Internet what websites do you use the most frequently and why do you use them?

MS01: oh I use hmm Argos, Amazon and hmm health if I need to find out an illness

INTERVIEWER: so you said you use Argos and Amazon is that for like buying things?

MS01: hmm yes

INTERVIEWER: is that due to your disability? Does it make things easier for you than going to the shop and doing it?

MS01: oh no no no what I do is usually go on Argos and if I want something I reserve it because you never know if you go to the shop it could be sold out so I always reserve it the night before

INTERVIEWER: OK so that basically saves on your journey

MS01: yea

INTERVIEWER: OK would you say services like that help with your disability?

MS01: Yeah could Yeah it does

INTERVIEWER: how would you say it helps?

MS01: because you know it is there or you can pay online you can buy something online and you know it I going to be delivered
INTERVIEWER: do you buy things online?
MS01: no not really no I don’t I would rather look before I buy
INTERVIEWER: OK
MS01: I am very fussy when it comes to that

INTERVIEWER: OK you mentioned that you use health sites, what was the last health site that you visited?
MS01: the BBC health site
INTERVIEWER: OK do you visit health site a lot?
MS01: No only if I am curious because sometimes the doctor says you got this illness and you may not have it so I would rather read up before I go and visit the doctor to find out whose telling the truth
INTERVIEWER: so you do it for like you own personal
MS01: yeah

INTERVIEWER: ok that’s very interesting hmm the websites that you are looking at now like ecommerce like buying websites and health sites have you always looked at that, lets say compared to 6 months ago were you looking at the same kinds of websites then as you are using now?
MS01: no
INTERVIEWER: what kind of websites were you using then?
MS01: well err 6 months ago I weren’t really looking at Argos and that because of inflation you get good deals but I think yes I have to go
INTERVIEWER: OK so what kind of websites were you looking at then?
MS01: I weren’t looking at any
INTERVIEWER: so you weren’t using the Internet then?
MS01: OK I was but I was mostly looking at Facebook
INTERVIEWER: OK so you have used Facebook?
MS01: yes you know what I mean, that’s it and emails and that’s it

INTERVIEWER: when was the last time you used the Internet?
MS01: this morning
INTERVIEWER: OK then can you describe what you did the last time you used the Internet?

MS01: well I turned the Internet on, put my password in click to Argos and then I got there

INTERVIEWER: OK hmm did you only visit Argos?

MS01: I checked Argos then I went to Jade Goody website

INTERVIEWER: OK so you like to find out things on the news as well?

MS01: Yea Yea

INTERVIEWER: do you know the name of that website?

MS01: Jade Goody

INTERVIEWER: OK that’s interesting so you use it for also personal things?

MS01: Yeah

INTERVIEWER: OK so you like to find out things on the news as well?

MS01: Yea Yea

INTERVIEWER: OK that’s interesting so you use it for also personal things?

MS01: Yeah

INTERVIEWER: OK, did you experience any problems when you used the Internet today?

MS01: yeah I did at first it was really stupid hmm I actually brought a mouse and I didn’t know I plug it in the wrong thing and that’s because I was lazy last night I couldn’t be bothered to read so I thought oh you know it will work it will work and eventually my daughter came and I asked her to fix it and it was fine

INTERVIEWER: how would you like to use the Internet in the future?

MS01: I think it should what I have told you before they should think of disabled people not only physically mentally or what ever so everybody has got a chance to help themselves

INTERVIEWER: so you like the idea that I am not putting words in your mouth or anything you like the idea of using the Internet or you computer to help with you daily life

MS01: Yeah

INTERVIEWER: to help you so that you don’t have to rely on anyone
MS01: I mean you can do shopping you can buy your food you know if the weather is raining you don’t have to ask someone
to do your shopping and if you got and if you got a computer or a laptop not everybody can use that it varies on there
disability

INTERVIEWER: OK

MS01: and it is very hard especially if you have got a severe disability and you want to use a laptop it can take up to a year to
use it

INTERVIEWER: OK

P 1: MS01.txt - 1:155 [MS01: and there are changes th..] (533:542) (VL)
Codes: [Off Topic]
No memos

MS01: and there are changes that have to be done

INTERVIEWER: Like what? What kind of changes are you talking about?

MS01: OK if your blind yeah you haven’t got a talking response to you know if the computer is turned on you are missing
out

INTERVIEWER: OK

MS01: so things like that or if you got hmm colour blindness you can’t see black and white sort of things like that have got to
be changed

P 1: MS01.txt - 1:156 [INTERVIEWER: what about your d..] (543:549) (VL)
Codes: ["Future" Internet Use] [Internet Issues]
No memos

INTERVIEWER: what about your disability, what sort of changes would you like for yourself?

MS01: sometimes I would like them to think with my self sometimes I would like I do have a problem

INTERVIEWER: Like what?

MS01: sometimes I can hardly see at times and even if I did wear glasses I cant see the print so sometimes it is very difficult
to, if you are on a website and you want to print out the words they are very tiny

P 1: MS01.txt - 1:157 [MS01: and there are changes th..] (533:541) (VL)
Codes: [Internet Issues]
No memos

MS01: and there are changes that have to be done

INTERVIEWER: Like what? What kind of changes are you talking about?

MS01: OK if your blind yeah you haven’t got a talking response to you know if the computer is turned on you are missing
out

INTERVIEWER: OK

MS01: so things like that or if you got hmm colour blindness you can’t see black and white sort of things like that have got to
be changed

P 1: MS01.txt - 1:158 [INTERVIEWER: OK in terms of yo..] (551:561) (VL)
Codes: ["Future" Internet Use] [Cerebral Palsy Issues] [Future Technology Use] [Internet Issues]
No memos

INTERVIEWER: OK in terms of your physical disability cerebral palsy how would you like the Internet to be in your life

MS01: well, hmm well physically I would like to be able to turn it on and go to the site cause sometimes you have
interference on the site like you can go to the site and it says I am sorry it is not available or it is not responding so I could
wait up to 2 to 3 hours before it does respond
INTERVIEWER: so it more about what you were saying before it is about the time it takes to do things
MS01: Yeah
INTERVIEWER: time for you is clearly an important thing
MS01: Yeah

INTERVIEWER: what about your disability, what sort of changes would you like for yourself?
MS01: sometimes I would like them to think with my self sometimes I would like I do have a problem
INTERVIEWER: Like what?
MS01: sometimes I can hardly see at times and even if I did wear glasses I cant see the print so sometimes it is very difficult to, if you are on a website and you want to print out the words they are very tiny

INTERVIEWER: OK if your blind yeah you haven’t got a talking response to you know if the computer is turned on you are missing out
INTERVIEWER: OK
MS01: so things like that or if you got hmm colour blindness you can’t see black and white sort of things like that have got to be changed

INTERVIEWER: ok that is really interesting the next set of questions are based more on your communication
MS01: OK

INTERVIEWER: so can you tell me how you are communicating with your friends family and co-workers?
MS01: hmm most of the people my friends
MS01: Oh, most of my friends who I communicate are mostly e-mail

INTERVIEWER: you only ever use email?

MS01: or sometimes phone

INTERVIEWER: you conduct all of your conversations it doesn’t have to be conversations do you physically see people

MS01: Yeah sometimes I go out and see them but most of the time I am very busy myself so I mostly email them to make sure they are ok what they are doing

INTERVIEWER: so you phone ok then do you do any other sort of forms of communication?

MS01: Yeah write letters

INTERVIEWER: You write letters?

MS01: yeah

INTERVIEWER: OK that’s very interesting, OK in terms of you actually writing letters do you do that often?

MS01: will I no not really yeah if I have a lot of letters to do I will just get on with it

INTERVIEWER: and do you hand write them or do you

MS01: Oh no I use Word

INTERVIEWER: OK why do you do that rather than handwriting them?

MS01: hmm then I can see hmm I don’t know I am so used to it so I just it is easier

INTERVIEWER: Why is it easier?

MS01: I don’t know I think it is because I can type it and save it and I can print it and I can always say that I have written it and always go back

INTERVIEWER: it is like always having a copy

MS01: yes it is like I always have a copy of it with your handwriting you do one and you don’t bother to you know like go and get a copy of it you haven’t got time for that so it is easier that way

INTERVIEWER: OK so basically in essence you are saying that the main ways you communicate I mean talk to your friends and family is via email and sometimes you go and see them and sometimes you use a telephone

MS01: or text

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
INTERVIEWER: you use text-messaging as well?

MS01: yeah

INTERVIEWER: do you have a mobile phone to do that?

MS01: Yeah

INTERVIEWER: OK, how do you find text messaging compared to for example writing a letter?

MS01: text messaging is ok

INTERVIEWER: how often would you say you used your phone?

MS01: hmm

INTERVIEWER: lets say in a day?

MS01: Oh, weekends I don’t use it at all

INTERVIEWER: OK, so during the week how often would you say you used it?

MS01: no I use t about sometimes 5 times a day texting

INTERVIEWER: so you text about 5 times a day?

MS01: yeah but it varies

INTERVIEWER: in terms of actually calling someone how often would you say you do that?

MS01: oh no it is very difficult for me because I am on sticks and when someone rings my disability goes all up the wall and I fall in the road so I don’t bother

INTERVIEWER: OK

P 1: MS01.txt - 1:169 [INTERVIEWER: and do you hand w..] (595:609) (VL)
Codes: [Computer Use] [Offline Tasks]
No memos

INTERVIEWER: and do you hand write them or do you

MS01: Oh no I use Word

INTERVIEWER: OK why do you do that rather than handwriting them?

MS01: hmm then I can see hmm I don’t know I am so used to it so I just it is easier

INTERVIEWER: Why is it easier?

MS01: I don’t know I think it is because I can type it and save it and I can print it and I can always say that I have written it and always go back

INTERVIEWER: it is like always having a copy

MS01: yes it is like I always have a copy of it with your handwriting you do one and you don’t bother to you know like go and get a copy of it you haven’t got time for that so it is easier that way

P 1: MS01.txt - 1:170 [INTERVIEWER: OK so basically i..] (611:666) (VL)
Codes: [Internet Use] [On-line Communication Use] [Online Tasks]
No memos

INTERVIEWER: OK so basically in essence you are saying that the main ways you communicate I mean talk to your friends and family is via email

P 1: MS01.txt - 1:171 [INTERVIEWER: in terms of actua..] (643:680) (VL)
Codes: [Cerebral Palsy Issues] [Off-line Communication Use]
No memos

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
INTERVIEWER: in terms of actually calling someone how often would you say you do that?

MS01: oh no it is very difficult for me because I am on sticks and when someone rings my disability goes all up the wall and I fall in the road so I don’t bother

INTERVIEWER: OK

MS01: sorry I am being honest you asked the question, I can’t drop my sticks and answer the phone

INTERVIEWER: so basically what you have said it is more about having communication that enables you to stay still because of your condition

MS01: yes unless I can sit down

INTERVIEWER: so you need to be seated?

MS01: yeah but some

INTERVIEWER: so that why sending emails appeals to you?

MS01: yeah

INTERVIEWER: OK

MS01: but if I am walking and someone rings I cant answer it, I can’t answer the phone because there are no seats

INTERVIEWER: OK, I get that.

Earlier on you mention that last year you were using like Facebook, have you ever used any other site like that?

MS01: no

INTERVIEWER: Ok so Facebook is the only site that you use, back then when you were using Facebook, where were you using it?

MS01: at home

INTERVIEWER: on your laptop

MS01: no PC

INTERVIEWER: ok do you ever use it anywhere else?

MS01: no

INTERVIEWER: when did you usually use it? Can you remember?
MS01: mostly at weekends because most of my friends are working or I was to busy so mostly at weekends

INTERVIEWER: OK any particular time at the weekend or just anytime

MS01: anytime

INTERVIEWER: OK why did you start using Facebook?

MS01: because my daughter introduced me to it

MS01: when I first went on it I taught ooo then I got so addicted I would forget to go to bed because I would be up there all night eat and talk to my friends so now I am used to it. It was like a toy it was like a toy a new toy you had never experienced before

INTERVIEWER: in terms of what you were saying earlier on that you need communication that enable you to sit as you are unable to walk around that much and so you don’t fall in roads, would you say that Facebook helps with that in terms of being able to communicate with like your friends and family

MS01: yeah because you can see how you are emailing and you can see what is going on and they would show you pictures of what they have been doing and you would show what you have been doing is yeah it is ok

INTERVIEWER: ok so it is better than trying to walk around and do the same things

MS01: yeah yeah

INTERVIEWER: in terms of what you were saying earlier on that you need communication that enable you to sit as you are unable to walk around that much and so you don’t fall in roads, would you say that Facebook helps with that in terms of being able to communicate with like your friends and family

MS01: well certain you never ok you are on Facebook but certain people who you met years ago would actually come online who you haven’t spoken to for 15 years you know so you got to know new friends who you haven’t spoken to or seen

INTERVIEWER: so in terms of your disability was that a good thing that you have been able to talk to be people you haven’t spoken to in a while?

MS01: Yeah

INTERVIEWER: Why would you say it was a good thing?

MS01: because then you weren’t so isolated

INTERVIEWER: so at times do you feel isolated?

MS01: no because I am very busy person so it wouldn’t really affect me but it might affect someone who was isolated
You said that sometimes you would go to bed late would you say that was a negative aspect of Facebook?

MS01: no no no in away it wasn’t a negative aspect it was a good thing in the days when I was born we never even had Facebook so really when you get new things or new websites and you have never tried it to you its like a toy

INTERVIEWER: yeah it’s like something exciting

MS01: yeah let me try it oh yeah yeah yeah and your on the site and you would forget the time you wanted to go to bed or what you were doing oh god it is 4 o’clock in the morning I better go to bed at the time you are not thinking

INTERVIEWER: so you were staying up until around 4am doing stuff on Facebook were you just emailing people talking to them and writing on people’s walls?

MS01: no no we were just talking

INTERVIEWER: OK, hmm you said it was very different from like when you were younger, how did you communicate back then?

MS01: we didn’t have computers

INTERVIEWER: so how did you communicate with you friends?

MS01: well we would meet in the playground

INTERVIEWER: OK, this was like when you were really young

MS01: yeah we didn’t have hmm all we had were typewriters you know those touch type typewriters we didn’t really

INTERVIEWER: OK so you said that the online community Facebook help you to get in contact with people you had seen in awhile so lets say before you started using Facebook how did you met those people before hand or did you just not meet them?

MS01: I met them but when you move on your address gets lost things like that, but once you are on Facebook people get to oh gosh I haven’t seen her in ages let me contact her, you get what I mean so it is a really interactive website for people who are looking for people you know it is really good because then you know what is really going on in their lives and they know what is going on with yours

INTERVIEWER: it is a good way of keeping

MS01: yea keeping friendships alive not losing people

INTERVIEWER: if you do move you can just go onto Facebook and find them and should be able to talk to them

MS01: Yeah

INTERVIEWER: OK that is really interesting OK, lets say the last time you used Facebook, do you remember the last time you used Facebook?

MS01: Yes about a year
INTERVIEWER: OK what did you do the last time you used Facebook?

MS01: hmm I just looked at who had sent me messages and I deleted people I didn’t want

INTERVIEWER: OK, do you find that quite liberating that you can control who your friends are?

MS01: Yes

INTERVIEWER: OK, have you experienced any problems when you were using Facebook?

MS01: Oh yeah sometimes the computer would play up you would do your password and it would still not let you in so you would have to do it like 3 or 4 times before it decided ok I will let you in

INTERVIEWER: OK so you just carried on trying until it let you in

MS01: yeah

INTERVIEWER: OK, you said that you use to, I hear you use Facebook in the past tense, why are you not using it now? What has stopped you for using it?

MS01: I don’t know I just taught err know the glory of using it is not so ok hmm in the beginning I was all excited but now it is a bit boring

INTERVIEWER: OK, so you said you used to use Facebook to hmm to find people you haven’t found in a while and to keep in touch with people do you know longer use Facebook so how are you keeping in touch with those people?

MS01: because I have got there phone numbers and I can text them

INTERVIEWER: Oh so you have gone back to your old way of communicating

MS01: Yeah

INTERVIEWER: so based on what you have said would you say that Facebook was kind of like a phase then?

MS01: Yeah it was like a little phase but now yeah but if I wanted to get in touch with them I could always go back to Facebook
INTERVIEWER: so from what I can gather Facebook has kind of been saying that Facebook was away of initiating communication
MS01: Yeah

INTERVIEWER: finding the people and once you have found them and you had thee phone number you went back to previous ways of communicating with them

MS01: well I was talking to them for ages

INTERVIEWER: oh ok so you have not talk to these people for a while, so the people on Facebook do you see them as being your proper friends then?
MS01: well there busy and I’m busy so no well yeah

INTERVIEWER: OK, so I am just trying to get how you are using Facebook
MS01: OK, what I am saying I am not using it at the moment

INTERVIEWER: I understand that you are not using it, but lets say if you wanted to contact someone on Facebook
MS01: Oh yea I can go back to Facebook and contact them

INTERVIEWER: OK then

MS01: because most of the people work you know terrible hours if I try to ring and email them they don’t respond so I know they will automatically respond on their PC or their computer cause that is what they live for so I know they would respond

INTERVIEWER: I am just trying to understand your reasoning, so your reason for not using Facebook anymore is that it is a way of initiating things, finding people, keeping them in a secure place, communicate with them by text message or you said you sent a lot of emails but in the event that you are unable to get in contact with them in that way you would go back to Facebook and talk to them through Facebook again

MS01: yeah

INTERVIEWER: so it is away of organising your communication

MS01: yeah

INTERVIEWER: in a secure place so it is never lost even if you do

MS01: yeah
INTERVIEWER: move property it is all in one place
MS01: yeah
INTERVIEWER: and people know were you are
MS01: yeah
INTERVIEWER: and you can get in contact with them
MS01: yeah yeah
INTERVIEWER: if you lose there phone number you know they are always there on Facebook so you can always go back
MS01: yeah
INTERVIEWER: so it is kind of like a storage facility
MS01: yeah yeah

P 1: MS01.txt - 1:194 [INTERVIEWER: what would make yo...] (855-904) (VL)
Codes: 
["Future* Online Communication Use"] [Future Technology Use]
No memos
INTERVIEWER: what would make you go back to using for example Facebook on a regular basis?
MS01: what Facebook?
INTERVIEWER: yeah Facebook for example or any online community
MS01: hmm
INTERVIEWER: what changes could be put in place to make you go back to it? So it not such a storage medium but rather a communication emailing a lot and you are text messaging a lot
MS01: hmm yeah
INTERVIEWER: would you ever see yourself emailing or Facebook message a lot?
MS01: no not really
INTERVIEWER: ok so would you say that Facebook in the future for you would always be a place to store people?
MS01: what it is when you first go on a site it is happy you feel really go but after a while they have to change it the outline the colouring
INTERVIEWER: Oh you would like it to be more personal?
MS01: yeah yeah no not personal just change the colouring because after a while it gets boring you see the same things I am not being funny they have got to change
INTERVIEWER: you would like to have more control of what you are seeing?
MS01: yeah
INTERVIEWER: so maybe you would like to personalise it in someway I suppose?
MS01: yeah
INTERVIEWER: if you could change what you were seeing how would you change it?
MS01: hmm so it is easier to hmm ok to put your password in for a disabled person for them it is easier and its more it is interesting but if you don’t know if you have never been on it you don’t know it is very complicated so you will get confused and in the end you would close it down
INTERVIEWER: is that way you were saying earlier on when you were saying when you were using the computer and the Internet you feel like you needed help and you came you with an idea that you would like some kind of virtual help

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
MS01: yeah yeah if you have never been on Facebook a computer oh this is Facebook and they have shown you for the day and when you go on Facebook your mind is so bogged that you don’t even know what you are doing so in the end you close down so you get what I mean

INTERVIEWER: so that is what you were saying that you would like to have a more interactive from of help

MS01: you have to press this to get to this because you have never been on it and once you get the hang of it, it shouldn’t be know problem cause every minute they are changing different you know

INTERVIEWER: OK

MS01: different things

INTERVIEWER: OK that is very interesting, you know I like your idea of the assistant

MS01: yeah yeah no not personal just change the colouring because after a while it gets boring you see the same things I am not being funny they have got to change

INTERVIEWER: you would like to have more control of what you are seeing?

MS01: yeah

INTERVIEWER: so maybe you would like to personalise it in someway I suppose?

MS01: yeah

INTERVIEWER: if you could change what you were seeing how would you change it?

MS01: hmm so it is easier

to hmm ok to put your password in for a disabled person for them it is easier and its more it is interesting but if you don’t know if you have never been on it you don’t know it is very complicated so you will get confused and in the end you would close it down

INTERVIEWER: is that way you were saying earlier on when you were saying when you were using the computer and the Internet you feel like you needed help and you came you with an idea that you would like some kind of virtual help

MS01: yeah yeah if you have never been on Facebook a computer oh this is Facebook and they have shown you for the day and when you go on Facebook your mind is so bogged that you don’t even know what you are doing so in the end you close down so you get what I mean

INTERVIEWER: so that is what you were saying that you would like to have a more interactive from of help

MS01: you have to press this to get to this because you have never been on it and once you get the hang of it, it shouldn’t be know problem cause every minute they are changing different you know

INTERVIEWER: OK

MS01: different things

INTERVIEWER: OK that is very interesting, you know I like your idea of the assistant

MS01: yeah,
another thing I forgot to tell you when you go on hotmail the thing what’s annoying they constantly change it

MS01: yeah, and another thing I forgot to tell you when you go on hotmail the thing what’s annoying they constantly change it and when you do put your password sometimes it doesn’t even let you in and if you don’t understand it you close down but you might need to, they need to update that they need to say well you got this problem because not everybody is a good reader so they got to put voice recognition on that so that people understand what they are doing

INTERVIEWER: would that link back into that virtual person you were talking about the assistant?

MS01: yeah just to say yeah you know I wont have to not being rude phone my daughter oh there a problem with the computer and there is nothing wrong with the computer because I am not qualified and I am not don’t understand it I should be able to you know get on the computer and be able to be independent when you haven’t got that assistant you are phoning every one to come and help you and I think that is wrong

INTERVIEWER: OK that is very interesting, ok from what you have said to me about computer, the internet and Facebook well online communities is that it is more about the speed of using things

MS01: yeah

INTERVIEWER: and it is about getting help

MS01: yeah

INTERVIEWER: so like a better form of help so that you don’t have to keep reading

MS01: yeah

INTERVIEWER: something that is more visual I have gathered and hmm the 3rd thing would be… so I have said the speed, getting help was there anything else?

MS01: speed getting things and sometimes the mouse can play up you need something easier for the disabled person to use because if they have got a problem with the mouse they be able to adapt it for the keyboard so a disabled person can still be independent

INTERVIEWER: so basically yeah so like so list emphasis on mouse use

MS01: yeah

INTERVIEWER: ok so it speed, the hardware like so you are not so dependent on a mouse ok that is very interesting

MS01: it could be talking recognition I want to go to the left I want to go to the right but it needs to be sorted in away that a disabled person can get a computer and it should be able to talk instead say on my cerebral palsy is going the mouse has gone on the floor the person cant bend down by the time they pick it up they screen has gone to saver if you get what I am saying so they don’t give you like a timer to say this person go this

INTERVIEWER: ok

MS01: so certain things has to change

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
INTERVIEWER: ok

P 1: MS01.txt - 1:202 [MS01: is that ok INTERVIEWER: ..] (941:948) (VL)
Codes: [Interview Instructions]
No memos

MS01: is that ok

INTERVIEWER: yes that is fine in terms of what we have been talk in about for the last 40minutes do you think you have talk about everything you wanted to say about computers, the internet and online communities?

MS01: it is fine.

INTERVIEWER: thank you for taking the time do this interview, the interview is over.

P 1: MS01.txt - 1:203 [INTERVIEWER: Okay, carry on MS..] (33:41) (VL)
Codes: [Interview Instructions]
No memos

INTERVIEWER: Okay, carry on

MS01: Sorry I’m laughing

INTERVIEWER: No it’s all right, you can laugh

MS01: Sorry

INTERVIEWER: No it’s all right carry on, don’t worry

P 1: MS01.txt - 1:204 [INTERVIEWER: Okay then. So we ..] (97:107) (VL)
Codes: [Interview Instructions]
No memos

INTERVIEWER: Okay then. So we are going to get going on the interview. There is going to be a maximum of like 15 questions, a minimum of 5.

MS01: Okay

INTERVIEWER: But I can’t indicate how much it is going to be dependent on you answers

MS01: That’s fine

INTERVIEWER: If you cant answer any question just say you can’t answer it and I will just more on, if you don’t understand a question just ask me to re-explain it and I will re-explain it

MS01: Okay

P 1: MS01.txt - 1:205 [MS01: Laughs INTERVIEWER: don’..] (289:299) (VL)
Codes: [Interview Instructions]
No memos

MS01: Laughs

INTERVIEWER: don’t worry I know the camera is there and it is making you a bit nervous but if you would like to take a break, just say and I will pause it.

MS01: Ok I will take a break

MS01: Ok

INTERVIEWER: we can start?

MS01: ok yes
B.2 Study Two: In-context field observations (chapter 4)

B.2.1 Event log

Offset: 0, Movie: MoviePathHere, DataFile: (null)
Tracks: Start, End, OSN scrolling, OSN Friend list, OSN Newsfeed, OSN Personal Profile, OSN Searching, OSN Messages, OSN Chat, OSN Wall, OSN Problem, OSN Selecting, OSN Friend Profile
Time,Duration,TrackName,comment

104496,0,OSN Selecting,(null)
104496,22258,OSN Chat, Searching who is online
132086,3090,OSN scrolling,(null)
135985,0,OSN Selecting,(null)
137151,25089,OSN Friend Profile,(null)
162240,36655,OSN Problem, page timeout;&#44; multiple attempts but unsuccessful.
16596,10262,OSN Wall, Photo tab
198895,0,End,(null)
29723,10730,OSN Wall, Information tab
5531,59512,OSN Personal Profile,(null)
5533,0,Start,(null)
65043,0,OSN Selecting,(null)
65043,21923,OSN Friend Profile,(null)
71873,6998,OSN Searching,(null)
78871,8097,OSN Wall, Friend photo
86966,0,OSN Selecting, Friend photo
88168,3766,OSN Friend Profile, Different friend
91934,0,OSN Selecting, Personal profile
91934,45217,OSN Personal Profile, (null)
9229,5234,OSN scrolling, (null)
B.2.2 Post observation interview

Participant ID: OS03
Session: 3
File: DS400032.WMA
Location: Home (Kitchen)
Additional Information: Severe Natural Speech Impairment

OSN_Facebook Interviewer: You finished, ok. So what did you try to do today? … when you were using Facebook… OSN_Facebook what was your goals for today? … I noticed that you were sending messages urr wall messages Goal > Sending_Messages to people …
Goal > Sending_Messages Goal > Viewing_Photographs and you were looking at hmm photographs
Interviewee: Mmm
Interviewer: from india
Interviewee: Hmm
Interviewer: It seemed to put a smile on your face
Interviewee: yes
Interviewer: you like those?
Interviewee: Mmm
Interviewer: Did it make you feel happy?
Interviewee: Mmm
Interviewer: So you like looking at photographs of your family?
Interviewee: Yes Goal > Viewing_Photographs
Friends_Updates Interviewer: or just any photographs?
Interviewee: Friends thats all Friends_Updates
Interviewer: Ok good, did you have any problems?
Interviewee: Hmm
Interviewer: I am assuming like hmm... the last time it was the size of the text, I am assuming today was the same problem?

Interviewee: Yes

Interviewer: Did you have any other problems?

Interviewee: [moves in wheelchair]

Interviewer: No

Interviewee: Hmm

Interviewer: I mean, I noticed that today you were using these keys more [Points to Large QWERTY Keyboard directional arrows], do you usually use them?

Interviewee: Hmm

Interviewer: Is there any reason for it, because usually you don't need to go across to get hmm you know to get to that section when you want to send a message [points to screen] ... you were using those a lot more today, is there any real reason for it?

Interviewee: I have ...

Interviewer: sorry

Interviewee: I am in spasm

Interviewer: Oh Ok, so your in spasm is that why?

Interviewee: Yes

Interviewer: Oh right so your cerebral palsy you have is not the same everyday then? it changes? and that can affect how you use the equipment?

Interviewee: Yes

Interviewer: Ok, well that was really interesting

Interviewee: and I can see more

Interviewer: Ok so you can see it much better today than last time?

Interviewee: yes if I use the big keyboard

Interviewer: Ok Ok that is interesting, I also noticed that sometimes you were using the trackpad section of your laptop. I have never seen you use it before, was there any reason why you were using it today?
Interviewee: yes because it is quicker

Interviewer: Oh so like speed can be a problem?

Interviewee: yes

Interviewer: ok is there anything else you would like to say? or about the last 3 weeks we have been going? this is the last one

Interviewee: Thank you

Interviewer: Oh thank you for coming oh thats ok, anytime not a problem. The sessions we have done for the last few weeks have been very interesting. Thank you.
B.3 Study Three: Longitudinal Twitter monitoring and analysis (chapter 5)

B.3.1 Peaks data sample

All (100) quotations from primary document: P 4: 28 Sept 10 - 100 of 135988.docx (<HUPATH>Twitter Global Research.ly text files\28 Sept 10 - 100 of 135988.docx)

P 4: 28 Sept 10 - 100 of 135988.docx - 4:1 [@dabockster <http://twitter.co...] (3:3) (Super)
Codes: [English] [Question: Who] [Sentiment: Positive] [Type: Update]
No memos
@dabockster <http://twitter.com/dabockster>: Retweet if you DO have the #newtwitter! :D

P 4: 28 Sept 10 - 100 of 135988.docx - 4:2 [@liljack321 <http://twitter.co...] (4:4) (Super)
Codes: [English] [Sentiment: Positive] [Type: Update]
No memos
@liljack321 <http://twitter.com/liljack321>: the #NewTwitter is actually pretty nice

P 4: 28 Sept 10 - 100 of 135988.docx - 4:3 [@Shashiita <http://twitter.com...] (5:5) (Super)
Codes: [~Change: Method -> Negative [Tuesday Sample]] [~Help: Community [Tuesday Sample]] [Change: Non-Verbalised] [English] [Sentiment: Negative] [Type: Update]
No memos
@Shashiita <http://twitter.com/Shashiita>: I wanna know why I don't f**kin have the #newtwitter

Codes: [English] [Sentiment: Positive] [Type: Update]
No memos
@DSappaKingMFAM <http://twitter.com/DSappaKingMFAM>: the #newtwitter looks sick

P 4: 28 Sept 10 - 100 of 135988.docx - 4:5 [@MCRmyGuate <http://twitter.co...] (9:9) (Super)
Codes: [English] [Sentiment: Positive] [Type: Update]
No memos
@MCRmyGuate <http://twitter.com/MCRmyGuate>: #newtwitter :D

P 4: 28 Sept 10 - 100 of 135988.docx - 4:6 [@SongofSongs1_2 <http://twitte...] (11:11) (Super)
Codes: [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos
@SongofSongs1_2 <http://twitter.com/SongofSongs1_2>: RT @LDOTtheproducer: #rt if you DO NOT have the #newtwitter

P 4: 28 Sept 10 - 100 of 135988.docx - 4:7 [@JonoHawk <http://twitter.com...] (14:14) (Super)
Codes: [~Change: Non-Acceptance [Tuesday Sample]] [Change: Verbalised] [Comparison] [English] [Sentiment: Negative] [Type: Update]
No memos
@JonoHawk <http://twitter.com/JonoHawk>: #NewTwitter reminds me of when #Facebook changed everything and I quit that a long time ago.

P 4: 28 Sept 10 - 100 of 135988.docx - 4:8 [@MarinDiva <http://twitter.com...] (15:15) (Super)
Codes: [English] [Sentiment: Positive] [Type: Update]
No memos
@MarinDiva <http://twitter.com/MarinDiva>: Especially like the integration of Twitpic, youtube, etc into the right panel. Simplifies viewing. #NewTwitter
No memos

@meganabel <http://twitter.com/meganabel>: Just looked at a preview of #NewTwitter and I don't think I like it, but will not write it off just yet.

P 4: 28 Sept 10 - 100 of 135988.docx - 4:10 [@pal0maaa <http://twitter.com/..>] (18:18) (Super)
Codes: [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos

@pal0maaa <http://twitter.com/pal0maaa>: RT @tweetyQuote: RETWEET if you don't have the #NewTwitter.

P 4: 28 Sept 10 - 100 of 135988.docx - 4:11 [@Hershey8 - #NewTwitter ?] (19:19) (Super)
Codes: [Help: Community [Tuesday Sample]] [English] [Question: What] [Sentiment: Neutral] [Type: Update]
No memos

@Hershey8 - #NewTwitter ?

P 4: 28 Sept 10 - 100 of 135988.docx - 4:12 [@Mr_Steal_UrGirl <http://twitter.com/..>] (20:20) (Super)
Codes: [English] [Sentiment: Negative] [Type: Update]
No memos

@Mr_Steal_UrGirl <http://twitter.com/Mr_Steal_UrGirl>: If I don't have the #newtwitter within the next week or so... I'm going to write anonymous hate letters to management lol

Codes: [Help: Community [Tuesday Sample]] [English] [Sentiment: Positive] [Type: Retweet]
No memos

@Tominiee <http://twitter.com/Tominiee>: RT @Diiziiee: RT @Tominiee: I have the #newtwitter- send the link on bbm to me please:* -which kain link. Its on the web like its nt for bb

Codes: [-UI Problem: Unspecified [Tuesday Sample]] [English] [Sentiment: Positive] [Type: Update] [User Interface Problems]
Memos: [Object_URL P4-023]
@nicdarlington <http://twitter.com/nicdarlington>: #newtwitter is having issues, but I like the interface much better. Anyway, Sophie has a voice now! <http://nicterhorst.blogspot.com>

Codes: [English] [Sentiment: Postive] [Type: Update]
No memos

@dsc0pes <http://twitter.com/dsc0pes>: hm, i might actually tweet from the computer for this #NewTwitter

Codes: [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos

@pillindesarahii <http://twitter.com/pillindesarahii>: RT @tweetyQuote: RETWEET if you don't have the #NewTwitter.

Codes: [Help: Community [Tuesday Sample]] [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos

@BelieberHelper <http://twitter.com/BelieberHelper>: RT @AVERYofficial: #iwannaknowwhy i still don't have the #newtwitter....hmmm...am i the only one?

P 4: 28 Sept 10 - 100 of 135988.docx - 4:18 [@ChrissyIzMe <http://twitter.c..>] (31:31) (Super)
Codes: [English] [Sentiment: Positive] [Type: Retweet]
No memos

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
@ChrissyIzMe <http://twitter.com/ChrissyIzMe> RT @iHangover: The #newtwitter is cool. Thumbs up!!!

P 4: 28 Sept 10 - 100 of 135988.docx - 4:19 [@TeodoroFC <http://twitter.com/TeodoroFC> (33:33) (Super)
Codes:  [English] [Sentiment: Negative] [Type: Update]
No memos

@TeodoroFC <http://twitter.com/TeodoroFC> I want the #NewTwitter

Codes:  [English] [Sentiment: Postivval] [Type: Update]
No memos

@TheMeisterGlenn <http://twitter.com/TheMeisterGlenn> #NEWTWITTER!!! w00t w00t!

Codes:  [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos

@Ar_Da_Great <http://twitter.com/Ar_Da_Great> RT @tweetyQuote: R E T W E E T if you don't have the #NewTwitter.

P 4: 28 Sept 10 - 100 of 135988.docx - 4:22 [@MePegaRenanGr <http://twitter.com/> (36:36) (Super)
Codes:  [English] [Sentiment: Neutral] [Type: Update]
No memos

@MePegaRenanGr <http://twitter.com/MePegaRenanGr> #newtwitter

Codes:  [English] [Sentiment: Postivval] [Type: Update]
No memos

@dariustheartist <http://twitter.com/dariustheartist> loving this #newtwitter!!!!

Codes:  [English] [Sentiment: Postivval] [Type: Update]
No memos

@LeslyBertin <http://twitter.com/LeslyBertin> I liked #Newtwitter :D

P 4: 28 Sept 10 - 100 of 135988.docx - 4:25 [@JBsPurpleNinja_Tweet and tel..] (40:40) (Super)
Codes:  [Comparison] [English] [Sentiment: Neutral] [Type: Update]
No memos

@JBsPurpleNinja_Tweet and tell me you fav. #OldTwitter or #NewTwitter

P 4: 28 Sept 10 - 100 of 135988.docx - 4:26 [@MrAllanCobham <http://twitter.com/> (41:41) (Super)
Codes:  [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos

@MrAllanCobham <http://twitter.com/MrAllanCobham> RT @D__Robiso: RT @tweetyQuote: R E T W E E T if you don't have the #NewTwitter.

P 4: 28 Sept 10 - 100 of 135988.docx - 4:27 [@EliiAK <http://twitter.com/EliiAK> (44:44) (Super)
Codes:  [~Change: Method - > Negative [Tuesday Sample]] [~Help: Community [Tuesday Sample]] [Change: Non-Verbalised] [English] [Sentiment: Negative] [Type: Retweet]
No memos

@EliiAK <http://twitter.com/EliiAK> RT @mr_sci_fi: This #newtwitter why haven't I seen it yet

P 4: 28 Sept 10 - 100 of 135988.docx - 4:28 [@Diego_nisa <http://twitter.com/> (45:45) (Super)
Codes:  [English] [Sentiment: Neutral] [Type: Update]
No memos

Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
@Diego_nisa <http://twitter.com/Diego_nisa> #newtwitter

Codes: [English] [Sentiment: Negative] [Type: Retweet]
No memos

@_ChelCK <http://twitter.com/_ChelCK> RT @LegendaryReese: I want the #NewTwitter!

P 4: 28 Sept 10 - 100 of 135988.docx - 4:30 [@CreepyJonas <http://twitter.com/...> (47:47) (Super)
Codes: [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos

@CreepyJonas <http://twitter.com/CreepyJonas> RT @SongzYuup: RETWEET If You Don't Have The #NewTwitter

Codes: [English] [Sentiment: Negative] [Type: Update]
No memos

@HeyHannahh <http://twitter.com/HeyHannahh> not sure how i feel about the #newtwitter.

Codes: [English] [Sentiment: Neutral] [Type: Update]
No memos

@NxNews <http://twitter.com/NxNews> #newtwitter

P 4: 28 Sept 10 - 100 of 135988.docx - 4:33 [@DraytoN4Real <http://twitter.com/...> (53:53) (Super)
Codes: [English] [Sentiment: Negative] [Type: Update]
No memos

@DraytoN4Real <http://twitter.com/DraytoN4Real> I Still dont have the #NewTwitter Guess Im not Special.... :-/

P 4: 28 Sept 10 - 100 of 135988.docx - 4:34 [@leeluvzya <http://twitter.com/...> (56:56) (Super)
Codes: [English] [Sentiment: Positive] [Type: Update]
No memos

@leeluvzya <http://twitter.com/leeluvzya> #NEWTWITTER! ahhh its so pretty!

P 4: 28 Sept 10 - 100 of 135988.docx - 4:35 [@KYnurse45 @damitman I agree W.] (57:57) (Super)
Codes: [Help: Community [Tuesday Sample]] [English] [Sentiment: Positive] [Type: @ Mention]
No memos

@KYnurse45 @damitman I agree Why is the blue bar so wide? It is working a lot faster than old twitter! Hello newtwitter

Codes: [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos

@PrinceBonet <http://twitter.com/PrinceBonet> RT @tweetyQuote: RETWEET if you don't have the #NewTwitter.

P 4: 28 Sept 10 - 100 of 135988.docx - 4:37 [@ThatsAnne <http://twitter.com/...> (60:60) (Super)
Codes: [English] [Question: Who] [Sentiment: Negative] [Type: @ Mention]
No memos

@ThatsAnne <http://twitter.com/ThatsAnne> @AVERYofficial I don't have #newtwitter too x]

Codes: [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
@Lannamonroe <http://twitter.com/Lannamonroe> RT @_texxon: R E T W E T if you don't have the #NewTwitter.

Codes: [English] [Question: Who] [Sentiment: Negative] [Type: Retweet]
No memos

@Ressa_Babyyyy <http://twitter.com/Ressa_Babyyyy> RT @_texxon: R E T W E T if you don't have the #NewTwitter.

Codes: [English] [Sentiment: Negative] [Type: Update]
No memos

@SonnieSydeUP <http://twitter.com/SonnieSydeUP> i still dont have #newtwitter yet

Codes: [English] [Sentiment: Negative] [Type: Update]
No memos

@THchrisC <http://twitter.com/THchrisC> the #newtwitter is just outta control

Codes: [English] [Sentiment: Positive] [Type: Update]
No memos

@sillybandz333 <http://twitter.com/sillybandz333> #newtwitter is awsome!

P 4: 28 Sept 10 - 100 of 135988.docx - 4:43 [[@LindsayKruger <http://twitter.com/LindsayKruger> (70:70) (Super)
Codes: [English] [Question: Who] [Sentiment: Neutral] [Type: Update]
No memos

@LindsayKruger <http://twitter.com/LindsayKruger> Anyone else tried the #NewTwitter? Like? Dislike?

Codes: [English] [Sentiment: Negative] [Type: Update]
No memos

@Swaggernificent <http://twitter.com/Swaggernificent> I'm even using #twitter on my phone, hoping Imma find the
#newtwitter here but... :( I DON'T!!

P 4: 28 Sept 10 - 100 of 135988.docx - 4:45 [[@BeadlesLuva <http://twitter.com/BeadlesLuva> (75:75) (Super)
Codes: [English] [Sentiment: Negative] [Type: Update]
No memos

@BeadlesLuva <http://twitter.com/BeadlesLuva> i hate #newtwitter itz so werid

P 4: 28 Sept 10 - 100 of 135988.docx - 4:46 [[@DamianEmile <http://twitter.com/DamianEmile> (82:82) (Super)
Codes: [–Change: Comparing States [Tuesday Sample]] [Change: Non-Verbalised] [English] [Sentiment: Neutral] [Type: @ Mention]
No memos

@DamianEmile <http://twitter.com/DamianEmile> @gaby_113 which is better, the old twitter or the #newtwitter?

P 4: 28 Sept 10 - 100 of 135988.docx - 4:47 [[@Kroses_wifey <http://twitter.com/Kroses_wifey> (84:84) (Super)
Codes: [–Help: Community [Tuesday Sample]] [English] [Question: What] [Sentiment: Neutral] [Type: Update]
No memos

@Kroses_wifey <http://twitter.com/Kroses_wifey> #newtwitter I wanna know what's the difference between the new & Old twitter

P 4: 28 Sept 10 - 100 of 135988.docx - 4:48 [[@Every1SayLove <http://twitter.com/Every1SayLove> (85:85) (Super)

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
P 4: 28 Sept 10 - 100 of 135988.docx - 4:58 [@bieberfan626 <http://twitter.com/ via Twitter>](99:99) (Super)

Codes: [~Help: Community [Tuesday Sample]] [~UI Problem: Unspecified [Tuesday Sample]] [English] [Sentiment: Negative] [Type: @ Mention] [User Interface: Problems]

No memos

@bieberfan626 <http://twitter.com/bieberfan626>@megan_lovex3 idk i still have it. What's wrong with #newtwitter?

P 4: 28 Sept 10 - 100 of 135988.docx - 4:59 [@mrc_amanda <http://twitter.com/ via Twitter>](1:1) (Super)

Codes: [#Non-English: Portuguese [Global Peaks]] [~Change: Non-Acceptance [Tuesday Sample]] [Change: Non-Verbalised] [Non-English] [Sentiment: Negative] [Type: Update]

Memos: [Translation P4-001]

@mrc_amanda <http://twitter.com/mrc_amanda> voltei pro velho, o #newtwitter é horrível

P 4: 28 Sept 10 - 100 of 135988.docx - 4:60 [@_Niiinha <http://twitter.com/ via Twitter>](2:2) (Super)

Codes: [#Non-English: Portuguese [Global Peaks]] [Non-English] [Sentiment: Positive] [Type: @ Mention]

Memos: [Translation P4-002]

 @_Niiinha <http://twitter.com/_Niiinha> @rafaimhof Não, core. V ou mandar p quem eu amo, FATO! #newtwitter :)

P 4: 28 Sept 10 - 100 of 135988.docx - 4:61 [@glauneix <http://twitter.com/ via Twitter>](7:7) (Super)

Codes: [#Non-English: Portuguese [Global Peaks]] [Non-English] [Question: Who] [Sentiment: Negative] [Type: Retweet]

Memos: [Translation P4-007]

@glauneix <http://twitter.com/glauneix> RT @mirellisaboia: Quem tem o #NewTwitter dê RT - Infelizmente a @gabrielesaboia não dará RT dokdokdokdodok'

P 4: 28 Sept 10 - 100 of 135988.docx - 4:62 [@Lariisinha_ @Piconn VC TEM O ..](8:8) (Super)

Codes: [#Non-English: Portuguese [Global Peaks]] [Non-English] [Question: Who] [Sentiment: Neutral] [Type: @ Mention]

Memos: [Translation P4-008]

@Lariisinha_ @Piconn VC TEM O #NEWTWITTER?? ?

P 4: 28 Sept 10 - 100 of 135988.docx - 4:63 [@veve_prado <http://twitter.com/ via Twitter>](10:10) (Super)

Codes: [#Non-English: Portuguese [Global Peaks]] [Non-English] [Question: How] [Sentiment: Positive] [Type: @ Mention]

Memos: [Translation P4-010]

@veve_prado <http://twitter.com/veve_prado> @Ally_Ramos é recebi um convite do #NewTwitter (Parecido com aquele do Orkut) Ele é bem pratico e mt mais moderno!

P 4: 28 Sept 10 - 100 of 135988.docx - 4:64 [@sahpetit <http://twitter.com/ via Twitter>](12:12) (Super)

Codes: [#Non-English: Portuguese [Global Peaks]] [Non-English] [Sentiment: Positive] [Type: Update]

Memos: [Translation P4-012]

@sahpetit <http://twitter.com/sahpetit> Ganhei o #newtwitter *.*


Codes: [#Non-English: Portuguese [Global Peaks]] [Non-English] [Sentiment: Positive] [Type: @ Mention]

Memos: [Translation P4-013]

@tiodenis <http://twitter.com/ via Twitter> @jamilehall tem que fazer parte do clubinho pra ter o #newtwitter

P 4: 28 Sept 10 - 100 of 135988.docx - 4:66 [@jessyanselmo <http://twitter.com/ via Twitter>](16:16) (Super)

Codes: [#Non-English: Portuguese [Global Peaks]] [Comparison] [Non-English] [Sentiment: Positive] [Type: Update]

Memos: [Translation P4-016]

@jessyanselmo <http://twitter.com/ via Twitter> O #newtwitter parece o Orkut!

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design

Cerebral palsy, online social networks and change.
Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
@ABellorin14 <http://twitter.com/ABellorin14>: como hago para tener el #newtwitter

P 4: 28 Sept 10 - 100 of 135988.docx - 4:77 [@BerelBell <http://twitter.com/..] (50:50) (Super)
Codes: [Global Peaks] [Non-English] [Sentiment: Positive] [Type: Update]
Memos: [Translation P4-050]

@BerelBell <http://twitter.com/BerelBell>: Show de Bola o novo Twitter #NewTwitter

Codes: [Global Peaks] [Non-English] [Sentiment: Neutral] [Type: Mention]
Memos: [Translation P4-052]

@flah_cs <http://twitter.com/flah_cs>: @debarros pesquisa: você tem #newtwitter?

P 4: 28 Sept 10 - 100 of 135988.docx - 4:79 [@rodhrnandes <http://twitter.c..] (54:54) (Super)
Codes: [Global Peaks] [Non-English] [Sentiment: Negative] [Type: Update]
Memos: [Translation P4-054]

@rodhrnandes <http://twitter.com/rodhrnandes>: Vieram me (@_biacerri) falar do #newtwitter. Agora eu quero. Alguém sabe me dizer como funciona?

Codes: [Global Peaks] [Non-English] [Sentiment: Negative] [Type: Retweet]
Memos: [Translation P4-055]

@IsmarRivero <http://twitter.com/IsmarRivero>: RT @will_Smiler: odio que el #NewTwitter no se actualice rápido ¬¬

Codes: [Global Peaks] [Non-English] [Sentiment: Negative] [Type: Update]
Memos: [Translation P4-059]

 @_MitchieCupcake <http://twitter.com/_MitchieCupcake>: Porque no tengo el #newtwitter? :|

P 4: 28 Sept 10 - 100 of 135988.docx - 4:82 [@Danii_Pires <http://twitter.com/D..] (64:64) (Super)
Codes: [Global Peaks] [Non-English] [Sentiment: Positive] [Type: Update]
Memos: [Translation P4-064]

@Danii_Pires <http://twitter.com/Danii_Pires>: aaa recebi o #NewTwitter até que é bonitinho! hahaha (:)

Codes: [Global Peaks] [Non-English] [Sentiment: Positive] [Type: Update]
Memos: [Translation P4-066]

@edu_lobo <http://twitter.com/edu_lobo>: E vocês que tem o #newtwitter. Eu tenho o #TwitterOuro! v.v

P 4: 28 Sept 10 - 100 of 135988.docx - 4:84 [@brunagrando <http://twitter.c..] (67:67) (Super)
Codes: [Global Peaks] [Non-English] [Sentiment: Negative] [Type: Update]
Memos: [Translation P4-067]

@brunagrando <http://twitter.com/brunagrando>: Mentira, quero mto o #newtwitter. rs!

P 4: 28 Sept 10 - 100 of 135988.docx - 4:85 [@anyibrito <http://twitter.com..] (69:69) (Super)
Codes: [Global Peaks] [Non-English] [Sentiment: Positive] [Type: Retweet]
Memos: [Translation P4-069]

@anyibrito <http://twitter.com/anyibrito>: RT @BorisLizana: El 95% de #Twitter ya tiene el #NewTwitter, si eres el 5% que todavía NO tiene #NewTwitter da RT

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
RT @BorisLizana: El 95% de #Twitter ya tiene el #NewTwitter, si eres el 5% que todavía NO tiene #NewTwitter da

Am I everrrrr gonna get this #newtwitter ?

tweetedmidedado: "Deus dá o #newtwitter pra quem não sabe usar!" quem ainda não tem dá RT.

no tengo #newtwitter pero por lo que veo por ahí, se parece a #tweetdeck

Tá, eu aderi ao #newtwitter

Acabei de chegar do teatro, e estou com o #newtwitter que fofo '-' rs. O ensaio foi bom, estou mega cansada.

vamos ver qualé quié deste #NewTwitter...

Ganheeeeee o #newtwitter

@walterfilho já tenho o #newtwitter a um tempão, mas nem uso.
@Quefaltadetodo <http://twitter.com/Quefaltadetodo>: Hay un #newtwitter para iPod? Debería porque me siento fuera de onda. #laedad

P 4: 28 Sept 10 - 100 of 135988.docx - 4:96 [@carolinacrvg <http://twitter.com/carolinacrvg>]: RT @OficialStifler: Todos já tem o #newtwitter menos você, mas você também não está nem ai, sabe que vai ser igual o orkut, no final tod ..

P 4: 28 Sept 10 - 100 of 135988.docx - 4:97 [@JuuTraple <http://twitter.com/JuuTraple>]: todo mundo com o #newtwitter menos eu.. #FATO

P 4: 28 Sept 10 - 100 of 135988.docx - 4:98 [@juliarodrigues <http://twitter.com/juliarodrigues>]: To me acustumando com o #NewTwitter

P 4: 28 Sept 10 - 100 of 135988.docx - 4:99 [@jessygaliza <http://twitter.com/jessygaliza>]: @JhonU2spfc John só eu q ñ tenho o #newtwitter :(:(:(:(:(:(:(:(:(:(

P 4: 28 Sept 10 - 100 of 135988.docx - 4:100 [@Biia_sb <http://twitter.com/Biia_sb>]: me apaixonei pelo #newtwitter, tão mais fácil <3 ainda bem que não deu uma de orkut
B.3.2 Fleiss Kappa including non-English tweets

Fleiss Kappa
Number of cases size = 100
Number of raters or instruments=4
Minimum score = 1
Maximum score = 4

Table subjects(rows) by scores(cols)\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>2</td>
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</tr>
</tbody>
</table>

\(^1\) The columns representing categories or scores of rating, and the rows representing each case rated. Each cell is the number of raters that gave that subject that score. The sums of all columns in every row must be the same and equals to the number of raters (Chang, 2011)
Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

Fleiss Kappa for 4 raters = 0.1490 SE = 0.0277
95%CI = 0.0948 to 0.2032

**B.3.3 Fleiss Kappa not including non-English tweets**

Fleiss Kappa
Number of cases size = 60
Number of raters or instruments=4

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Minimum score = 1
Maximum score = 4

Table subjects(rows) by scores(cols)

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3</td>
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<tr>
<td>1</td>
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</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The columns representing categories or scores of rating, and the rows representing each case rated. Each cell is the number of raters that gave that subject that score. The sums of all columns in every row must be the same and equals to the number of raters (Chang, 2011)
Cerebral palsy, online social networks and change.

Fleiss Kappa for 4 raters = 0.2044 SE = 0.0379
95%CI = 0.1302 to 0.2787

B.3.4 Event sampling data sample

All (100) quotations from primary document: P27: 25 Jan 11 - 100 of 664.docx (<HUPATH>\Twitter Global Research.ly text files\Global Twitter Research.ly Main Study Files\Sample - Tuesdays\25 Jan 11 - 100 of 664.docx)

Codes: [English] [Sentiment: Negative] [Type: Update]
No memos
@gweninfer211 <http://twitter.com/gweninfer211> ok for real. the #newtwitter is gettin on my nerves.

Codes: [UI Problem: Operability [Tuesday Sample]] [English] [Sentiment: Negative] [Type: @ Mention] [User Interface: Problems] [User Interface: Suggestions]
No memos
@timcorriejr <http://twitter.com/timcorriejr> @TinaNguyen yes! I also hate that you can't tell who RT'd without mouseclicks on the #newTwitter or at least a number #Twitterfail

Codes: [UI Problem: Operability [Tuesday Sample]] [English] [Sentiment: Negative] [Type: @ Mention] [User Interface: Problems]
No memos

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
@Lainie_M <http://twitter.com/Lainie_M> @russellcrowe I thought I was the only one not able to see past 1 hr back on #newtwitter.

Codes: [UI Problem: Operability [Tuesday Sample]] [English] [Sentiment: Negative] [Type: Update] [User Interface: Problems] 
No memos

@SayMyName_Bitch <http://twitter.com/SayMyName_Bitch> I have #NewTwitter and it doesn't tell me when I have new DMS!!!!

Codes: [English] [Sentiment: Neutral] [Type: @ Mention] 
No memos

@dlawonline <http://twitter.com/dlawonline> @2FaceHD welcome to Twitter! #newtwitter

Codes: [Non-English] [Type: Update] 
No memos

@ThaisBarbi <http://twitter.com/ThaisBarbi> Dica: TAB + M abre a janela pop up pra mandar DM's no #NewTwitter. Não sei se só no Mozilla, mas enfim.

Codes: [UI Problem: Recovery [Tuesday Sample]] [English] [Type: Update] [User Interface: Problems] 
No memos

@wyclif <http://twitter.com/wyclif> Looks like @Twitter fixed the JavaScript in #NewTwitter. Chromium is much happier.

Codes: [Change: Non-Acceptance [Tuesday Sample]] [Change: Non-Verbalised] [English] [Sentiment: Negative] [Type: Update] 
No memos

@UlaDrake <http://twitter.com/UlaDrake> Am I the only person who still uses #oldtwitter when I'm on my computer? I still HATE #newtwitter

Codes: [Non-English] [Type: Update] 
No memos

@RedeSeriados <http://twitter.com/RedeSeriados> Novo Twitter do blog "Rede Seriados!! #NewTwitter #RedeSeriados #brevé

Codes: [Non-English] [Type: Update] 
No memos

@netobonini <http://twitter.com/netobonini> vou ficar nesse #NewTwitter --'

Codes: [Non-English] [Type: Update] 
No memos

@DiegoGoncalez <http://twitter.com/DiegoGoncalez> até que o #newtwitter não é tão ruim assim :)

Codes: [Help: Community [Tuesday Sample]] [UI Problem: Operability [Tuesday Sample]] [English] [Sentiment: Neutral] [Type: Update] [User Interface: Problems] 
No memos

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
yeah really, #newtwitter to the bottom of a page isn't stopping any more?

@budilac How to use Twitter Lists #NewTwitter <http://t.co/7ANiGMw> via @support

@leesa_catera <http://twitter.com/leesa_catera> and the text on #newtwitter DM still runs off the page before it wraps around.

@leesa_catera <http://twitter.com/leesa_catera> ok seriously, what is w/ #newtwitter getting to the bottom of a pg & just stopping? no "more", scroll bar stopped dead.

@RebelJewel <http://twitter.com/RebelJewel>: Visit RebelJewel.com now with DISCOUNT code REBELTWEETS for 20% DISCOUNT #sale #discount #newtwitter #discountcode #handmade #LIMITED

@tincho_ILoveRos <http://twitter.com/tincho_ILoveRos> praying for the #NewTwitter works on my computer again soon... #keepwishing

@KennyT83 <http://twitter.com/KennyT83>: Is anybody getting this problem with #NewTwitter I cant scroll down to see old tweets anymore

@Debs5505 <http://twitter.com/Debs5505> back to #oldtwitter seems much quicker than #newtwitter !!
Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design


Codes:  
- [Change: Prevented [Tuesday Sample]]  
- [UI Problem: Unspecified [Tuesday Sample]]  
- [Change: Non-Verbalised [English]]  
- [Sentiment: Negative]  
- [Type: Update]  
- [User Interface: Problems]

No memos

@tincho_ILoveRos <http://twitter.com/tincho_ILoveRos>  i hate the fucking #OldTwitter!! but it works, and the #NewTwitter doesn't!! #WTF = #WalterTraeFacturas


Codes:  
- [Change: Transitory Non-Acceptance [Tuesday Sample]]  
- [Help: System [Tuesday Sample]]  
- [UI Problem: Aesthetics [Tuesday Sample]]  
- [Change: Non-Verbalised [English]]  
- [Sentiment: Negative]  
- [Type: @ Mention]  
- [User Interface: Problems]

No memos

@rovingbubs <http://twitter.com/rovingbubs>  @twitter where is the more button when i get to the bottom of a timeline on the #newtwitter ? switching to old twitter which works.


Codes:  
- [UI Problem: Operability [Tuesday Sample]]  
- [English]  
- [Sentiment: Negative]  
- [Type: Update]  
- [User Interface: Problems]

No memos

@belline_allison <http://twitter.com/belline_allison>  something seems to be wrong with #newtwitter. Older pages of tweets are not loading.


Codes:  
- [Change: Transitory Acceptence [Tuesday Sample]]  
- [Change: Non-Verbalised [English]]  
- [Sentiment: Positive]  
- [Type: Update]

No memos

@justinbieberOTT <http://twitter.com/justinbieberOTT>  i thought i would never get used of the #newtwitter … but know the old one, its like… whaaaat . ?


Codes:  
- [UI Problem: Unspecified [Tuesday Sample]]  
- [English]  
- [Sentiment: Negative]  
- [Type: Retweet]  
- [User Interface: Problems]

No memos

@roadhacker <http://twitter.com/roadhacker>  RT @dacort: @roadhacker Thanks for the shout out! One of these days (soon) I'll have to fix it to work with #newtwitter. cc @justinthesouth


Codes:  
- [UI Problem: Aesthetics [Tuesday Sample]]  
- [English]  
- [Sentiment: Negative]  
- [Type: Update]  
- [User Interface: Problems]

No memos

@MelindaSherene <http://twitter.com/MelindaSherene>  i hate that you can't see the full background on #newtwitter


Codes:  
- [UI Problem: Recovery [Tuesday Sample]]  
- [English]  
- [Sentiment: Negative]  
- [User Interface: Problems]

No memos

@dacort <http://twitter.com/dacort>  @roadhacker Thanks for the shout out! One of these days (soon) I'll have to fix it to work with #newtwitter. ;)


Codes:  
- [English]  
- [Sentiment: Positive]  
- [Type: Update]

No memos

@IMAMAKEUPARTIST <http://twitter.com/IMAMAKEUPARTIST>  I AM FEELING TWITTER NOW AND I AM LOVING THE #NEWTWITTER IT'S ORGANIZE. #TFB
Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
No memos

@LaeHepburn <http://twitter.com/LaeHepburn> @24WITHNOKIDS #NewTwitter @EffUCeeKayULae

Codes: [English] [Sentiment: Neutral] [Type: @ Mention]
No memos

@LaeHepburn <http://twitter.com/LaeHepburn> @BarbieeBadAssh #NewTwitter @EffUCeeKayULae

Codes: [English] [Sentiment: Neutral] [Type: Update]
No memos

@LaeHepburn <http://twitter.com/LaeHepburn> #newtwitter @EffUCeeKayULae

Codes: [Change: Transitory Acceptence [Tuesday Sample]] [Change: Non-Verbalised] [English] [Sentiment: Positive] [Type: Update]
No memos

@EraDizzle <http://twitter.com/EraDizzle> ... yeah so now I switched over to #newtwitter that finally works, I see my mentions dropdown menu #facepalm

Codes: [English] [Spam] [Type: Update]
No memos

@DiamondFreshEnt <http://twitter.com/DiamondFreshEnt> RT @CRUSH_ST: @jakezamansky We wish you will be happy life. #Newtwitter #ShoutOut follow #follow #TeamFollowBack #ifollowback #FF #3590A ...

Codes: [English] [Spam] [Type: @ Mention]
No memos

@CRUSH_ST <http://twitter.com/CRUSH_ST> @jakezamansky We wish you will be happy life. #Newtwitter #ShoutOut follow #follow #TeamFollowBack #ifollowback #FF #3590ADAY #IFollowAll

Codes: [Comparison] [English] [Sentiment: Negative] [Type: Update]
No memos

@GalileoGal <http://twitter.com/Galileo_Gal> Opinions please? What's the best PC based Twitter app. You see, #oldtwitter sux & #newtwitter sux even more. TweetDeck? Or are there others?

P27: 25 Jan 11 - 100 of 664.docx - 27:45 [@FuhrerAndy <http://twitter.com/... (45:45) (Super)
Codes: [Change: Non-Acceptance [Tuesday Sample]] [Change: Non-Verbalised] [English] [Sentiment: Negative] [Type: Update]
No memos

@FuhrerAndy <http://twitter.com/FuhrerAndy> Who else is going to totally miss the #oldtwitter? I'm stalling the update for #newtwitter as long as I can. Haha.

Codes: [Comparison] [English] [Question: What] [Sentiment: Neutral] [Type: Retweet]
No memos

@bemyfan28 <http://twitter.com/bemyfan28> RT @Eddie_Vee Wow. I haven't been on 'real twitter' aka not my iphone... I had no idea there was a #NewTwitter How new is it?

Codes: [Non-English] [Type: Update]

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
No memos

@manny13 <http://twitter.com/manny13> e essa merda de #newtwitter só atrasa minha vida mediocre.

Codes: [...] [Help: Community [Tuesday Sample]] [...] [UI Problem: Operability [Tuesday Sample]] [English] [Sentiment: Negative] [Type: Update] [User Interface: Problems]
No memos

@weavez22 <http://twitter.com/weavez22> can anybody using #NewTwitter see older tweets? and is there a reason why not?

Codes: [...] [English] [Question: What] [Sentiment: Neutral] [Type: @ Mention]
No memos

@JustJeff_ <http://twitter.com/JustJeff_> @Jackamomentum How to use Twitter Lists #NewTwitter support.twitter.com/articles/24792... via @support

Codes: [...] [UI Problem: Operability [Tuesday Sample]] [English] [Sentiment: Negative] [Type: @ Mention] [User Interface: Problems]
No memos

@PrinceDanyl <http://twitter.com/PrinceDanyl> @dannybaby1234 Oops didn't realise you sent me one...Blame #NewTwitter x

Codes: [...] [Non-English] [Type: Update]
No memos

@HenriqueCostaa <http://twitter.com/HenriqueCostaa> AAAAAAAAAAh descobri como vê se a pessoa twita via web pelo #newtwitter o/

Codes: [...] [UI Problem: Unspecified [Tuesday Sample]] [English] [Sentiment: Negative] [Type: @ Mention] [User Interface: Problems]
No memos

@gillieworm <http://twitter.com/gillieworm> @ethel_godrich thought it was just my time line that was quiet, mind you #newtwitter is very glitchy with me and goes in fits and starts

Codes: [...] [English] [Spam] [Type: @ Mention]
No memos

@CRUSH_ST <http://twitter.com/CRUSH_ST> @smittycurler We wish you will be happy life. #Newtwitter #ShoutOut follow #follow #TeamFollowBack #ifollowback #FF #3589ADAY #IFollowAll

Codes: [...] [English] [Sentiment: Negative] [Type: Update] [User Interface: Suggestions]
No memos

@digitaltempest <http://twitter.com/digitaltempest> Dear @Twitter: I would be much obliged if there was some way to notify me of DMs when using the site via the web. #NewTwitter

Codes: [...] [Non-English] [Type: Update]
No memos

@pedroazipiu <http://twitter.com/pedroazipiu> Pronto! Voltei cheio de ferro na boca. É igual o #NewTwitter... é bom mas é ruim.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
@Arnie_fx <http://twitter.com/Arnie_fx> me Encanta este #newTwitter no me canso de decirlo!!

@serdar_birbilen <http://twitter.com/serdar_birbilen> How to use Twitter Lists #NewTwitter <http://t.co/fcxyEq> via @support

@gilsonponto <http://twitter.com/gilsonponto> o #NewTwitter que acabar com a minha vida . fica dando leg.

@notabene <http://twitter.com/notabene> yes. I. want. to. switch. to. #newtwitter and. have. clicked. so. on. both. computers. every. day. for. a. few. days.

@lnich <http://twitter.com/lnich> Dammit, #newtwitter is still only showing me one page of tweets. Why would it stop loading the rest?

@Emileela <http://twitter.com/Emileela> maybe i should stop using #newtwitter and try #oldtwitter to see if i can scroll down...

@BijansPride_ <http://twitter.com/BijansPride_> I love how fast this #NewTwitter is , I meant to be had said that comment .

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design

@JasonSilvestri <http://twitter.com/JasonSilvestri> What Ever Happened To The Drive? [Jason Silvestri Video] via #newTwitter & #YouTube <http://www.youtube.com/watch?v=U8OUFw4RPew>

Codes: [English] [Sentiment: Negative] [Type: Update]
No memos

@jourdyn01 <http://twitter.com/jourdyn01> #newtwitter is some bullshit :

Codes: [English] [Sentiment: Negative] [Type: Retweet]
No memos

@aimeemcfarlane1 <http://twitter.com/aimeemcfarlane1> RT @x_Oliverr: #newtwitter is shit :

Codes: [Non-English] [Type: Update]
No memos

@carol__sg <http://twitter.com/carol__sg> #NewTwitter dando bug aqui --

Codes: [Change: Comparing States [Tuesday Sample]] [UI Problem: Operability [Tuesday Sample]] [Change: Non-Verbalised] [English] [Sentiment: Negative] [Type: Update] [User Interface: Problems]
No memos

@raingraves <http://twitter.com/raingraves> hmm. cannot see my incoming DMs via #newtwitter, yet the #oldtwitter displays them fine. #twitterfail

Codes: [Non-English] [Type: Update]
No memos

@isblgoes <http://twitter.com/isblgoes> ae consegui entrar no #NewTwitter ;)

Codes: [English] [Sentiment: Negative] [Type: Update]
No memos

@Mutendo64 <http://twitter.com/Mutendo64> I don't like the #newtwitter

P27: 25 Jan 11 - 100 of 664.docx - 27:81 [@x_Mel30StM_x <http://twitter.com/x_Mel30StM_x>] (81:81) (Super)
Codes: [Non-English] [Type: @ Mention]
No memos

@x_Mel30StM_x <http://twitter.com/x_Mel30StM_x> @Twilightgirly93 oh gut mach ich.. seh ich beim #NewTwitter nie wenn jemand DM's schickt..

Codes: [English] [Spam] [Type: @ Mention]
No memos

@CRUSH_ST <http://twitter.com/CRUSH_ST> @JohnnyGWeir We wish you will be happy life. #Newtwitter #ShoutOut follow #follow #TeamFollowBack #followback #FF #3587ADAY #IFollowAll

Codes: [UI Problem: Recovery [Tuesday Sample]] [English] [Sentiment: Positive] [Type: Update] [User Interface: Problems]
No memos
@ericaheitzman <http://twitter.com/ericaheitzman> got the #newtwitter working finnally! sweeet i'm likin it

Codes:  [Non-English] [Type: Update]
No memos

@karolmerencio <http://twitter.com/karolmerencio> af, foi só até o primeiro dia do #newtwitter

Codes:  [Non-English] [Type: @ Mention]
No memos

@danilohiga <http://twitter.com/danilohiga> @chips_freedom tem razão o #NewTwitter é uma bosta... O meu tá dando pau pra carregar os Tweets antigos =Þ

Codes:  [English] [Sentiment: Neutral] [Type: Update]
No memos

@AnGeL_AnOnYmOuS <http://twitter.com/AnGeL_AnOnYmOuS> Made a #Newtwitter account with @HARMz_ >> go follow us!! it's @JustinB_JLS

Codes:  [-Change: Method -> Negative [Tuesday Sample]] [Change: Non-Verbalised] [English] [Sentiment: Negative] [Type: @ Mention]
No memos

@OvenuOvenValet <http://twitter.com/OvenuOvenValet> @jane__bradley Annoying, isn't it? Pop up boxes that is. I'm not wondering either. Think they're trying to force us onto #newtwitter

Codes:  [Non-English] [Type: Update]
No memos

@LuhhFaria <http://twitter.com/LuhhFaria> #Newtwitter eu te odeio... Quero ver a minha timeline inteira.

P27: 25 Jan 11 - 100 of 664.docx - 27:89 [@NoelCT <http://twitter.com/NoelCT> (89:89)  (Super)
Codes:  [-Help: Community [Tuesday Sample]] [-UI Problem: Operability [Tuesday Sample]] [English] [Sentiment: Negative] [Type: Update] [User Interface: Problems]
No memos

@NoelCT <http://twitter.com/NoelCT> Anybody else having problems with #NewTwitter? It's no longer expanding to older tweets when I scroll down.

P27: 25 Jan 11 - 100 of 664.docx - 27:90 [@MiihCDS <http://twitter.com/MiihCDS> (90:90)  (Super)
Codes:  [Non-English] [Type: Update]
No memos

@MiihCDS <http://twitter.com/MiihCDS> seloko nada se compara ao #newtwitter *-*

Codes:  [-UI Problem: Operability [Tuesday Sample]] [English] [Sentiment: Negative] [Type: @ Mention] [User Interface: Problems]
No memos

@Ryan_Makepeace <http://twitter.com/Ryan_Makepeace> @speedmouse #NewTwitter #NewPetPeeve the error message "there has been an error updating your list"

Codes:  [Non-English] [Type: Update]
No memos

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
@Smile_AnneMusic <http://twitter.com/Smile_AnneMusic>: Wow! De la que se libró Demi, no sabe el ASCO que es el #NewTwitter

P27: 25 Jan 11 - 100 of 664.docx - 27:93 [@SteveLavelle Tweet Tweeeettttt..] (93:93) (Super)
Codes: [English] [Sentiment: Postive]
No memos

@SteveLavelle Tweet Tweeeettttt #NewTwitter!

Codes: [Non-English]
No memos

@isblgoes <http://twitter.com/isblgoes>: aaaaaaaaaa, qe ódio meu #newtwitter nao peeeeeeega .l.

P27: 25 Jan 11 - 100 of 664.docx - 27:95 [@RennxRomance <http://twitter...>] (95:95) (Super)
Codes: [Non-English] [Type: Update]
No memos

@RennxRomance <http://twitter.com/RennxRomance>: You’re using an older version of Twitter that won’t be around for much longer. < será porque el #newtwitter me dió una patada ovarial? --.

Codes: [-Change: Comparing States [Tuesday Sample]] [-UI Problem: Performance [Tuesday Sample]] [Change: Non-Verbalised] [English] [Sentiment: Negative] [Type: Update] [User Interface: Problems]
No memos

@maryjinn <http://twitter.com/maryjinn>: #newtwitter your service must be better than older twitter, but It's so slowwww

Codes: [Non-English] [Type: Update]
No memos

@AliceLisboa <http://twitter.com/AliceLisboa>: Apesar do # #NewTwitter engolir meu Tweets eu já me acostumei, e voltei pra ele! Acho ele mais organizado, e não suporto desorganização.

Codes: [Non-English] [Type: Update]
No memos

@feehbittencourt <http://twitter.com/feehbittencourt>: #NewTwitter começando a sacanear !

Codes: [Non-English] [Type: Retweet]
No memos

@vivirodriguesb <http://twitter.com/vivirodriguesb>: RT @marianamenezes: Esse "Wondering who this is?" é uma forma do twitter nos obrigar a usar o novo. Se fuder, odeio o #newtwitter e não ...

P27: 25 Jan 11 - 100 of 664.docx - 27:100 [@mahbittencourt <http://twitter..>] (100:100) (Super)
Codes: [Non-English] [Type: Update]
No memos

@mahbittencourt <http://twitter.com/mahbittencourt>: Não gosto desse #NewTwitter! #ProntoFalei

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B.4 Study Four: Longitudinal Facebook monitoring and analysis (chapter 6)

All (61) quotations from primary document: P36: Facebook - Forward [Dec].txt (<HUPATH>:\Facebook - Forward [Dec].txt)

P36: Facebook - Forward [Dec].txt - 36:1 [James Chea: To lazy, to be ho.] (1:1) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

James Chea: To lazy, to be honest.

Codes: [+Comment:Like [Facebook]] [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Oscar Ramos: Lazy? it's powerfull

P36: Facebook - Forward [Dec].txt - 36:3 [Oscar Ramos: Lazy? it's power] (3:3) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Oscar Ramos: Lazy? it's powerfull

P36: Facebook - Forward [Dec].txt - 36:4 [Natalie Green cool :) ] (4:4) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Natalie Green cool :)

P36: Facebook - Forward [Dec].txt - 36:5 [Charles William Walker: good!] (5:5) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Charles William Walker: good!

Codes: [+English [Facebook]] [+Question: When [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Richard Cahill YES! About time.

P36: Facebook - Forward [Dec].txt - 36:7 [Thanos Romanidis 10000000st 1] (7:7) (Super)
Codes: [+Comment:Like [Facebook]] [+English [Facebook]] [+Spam [Facebook]]
No memos

Thanos Romanidis 10000000st 1

P36: Facebook - Forward [Dec].txt - 36:8 [Petros Stavrulopoulos pwww th] (8:8) (Super)
Codes: [+English [Facebook]] [+Spam [Facebook]]
No memos

Petros Stavrulopoulos pwww thano xarhkes twra??? :P

Codes: [+English [Facebook]] [+Spam [Facebook]]
No memos

'Bruno Spookie Martins: fcole Secondaire Cavelier de LaSalle ?

P36: Facebook - Forward [Dec].txt - 36:10 [Juhi Misra: cool] (10:10) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
Juhi Misra: cool

Hamod Madrid: great :) 

Eddie Ponce Leon: finaaly!

Todd Johnson: Great idea! 

Alcimar Araujo: dreams

Federico Pi–eiro: Liceo de Playa Pascual

Bailee Shae Glover: it don't work all that well

Nunie Shawntae Moore: iumhm

Junatan Tangnamoo: k

Przemek Wal?: dziak: no ca?kie..?

Caroline Chicoine: awesome!

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design

Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Caroline Chicoine: awesome!

Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Alawi Al Hebshi: Nice job.

Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Jr Mena S coool

Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Trevor Martin: cool

P36: Facebook - Forward [Dec].txt - 36:24 [AyEsha SaMia awesome!] (24:24) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

AyEsha SaMia awesome!

Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Ellis Tettey Sika: fine

P36: Facebook - Forward [Dec].txt - 36:26 [Ben O'Shaughnessy: Man of th.] (26:26) (Super)
Codes: [+Comment:Like [Facebook]] [+English [Facebook]] [+Spam [Facebook]]
Memos: [Translation P36-27]

Ben O'Shaughnessy: Man of the year. Like

P36: Facebook - Forward [Dec].txt - 36:27 [Felipe Cabargas: Genial!] (27:27) (Super)
Codes: [+Non-English [Facebook]] [+Non-English: Spanish [Facebook]] [+Sentiment: Positive [Facebook]]
Memos: [Translation P36-27]

Felipe Cabargas: Genial!

P36: Facebook - Forward [Dec].txt - 36:28 [Janet Mease: Love this!! REALLY!!] (28:28) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Janet Mease: Love this!! REALLY!!

P36: Facebook - Forward [Dec].txt - 36:29 [Ben Jr Barsalote nice i agree ..] (29:29) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Ben Jr Barsalote nice i agree with that :D

P36: Facebook - Forward [Dec].txt - 36:30 [David Keller What happens when..] (30:30) (Super)
Codes: [+English [Facebook]] [+Help: Community [Facebook]] [+Sentiment: Neutral [Facebook]]
Cerebral palsy, online social networks and change.

No memos

David Keller What happens when you tag a picture of your dog as your friend, for a little laugh? Do all of your pictures of your dog now say "John Smith"?

P36: Facebook - Forward [Dec].txt - 36:31 [Donald Aguirre Pretty cool.] (31:31) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Donald Aguirre Pretty cool.

P36: Facebook - Forward [Dec].txt - 36:32 [Izzy AchinkÉa goood.... nice,...] (32:32) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Izzy AchinkÉa goood.... nice,......

P36: Facebook - Forward [Dec].txt - 36:33 [Mirabela Montell how do you do...] (33:33) (Super)
Codes: [+English [Facebook]] [+Help: Community [Facebook]] [+Question: What [Facebook]] [+Sentiment: Negative [Facebook]]
No memos

Mirabela Montell how do you do it ? like how do you add it to be able to...? please tell(:

P36: Facebook - Forward [Dec].txt - 36:34 [Norbert SmithÉa Read stuff, yo.] (34:34) (Super)
Codes: [+Comment:Like [Facebook]] [+Help: Community [Facebook]] [+Sentiment: Neutral [Facebook]]
No memos

Norbert SmithÉa Read stuff, you'll learn more. 9Éa:Like

P36: Facebook - Forward [Dec].txt - 36:35 [Pj O'neillÉa good idea] (35:35) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Pj O'neillÉa good idea

P36: Facebook - Forward [Dec].txt - 36:36 [Sandy King It's gd and east :)..] (36:36) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Sandy King It's gd and east :) :0

P36: Facebook - Forward [Dec].txt - 36:37 [Aga Ridwan Nugraha PermanaÉa l...] (37:37) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Aga Ridwan Nugraha PermanaÉa like this

P36: Facebook - Forward [Dec].txt - 36:38 [Christian DCruzÉa nice..] (38:38) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

Christian DCruzÉa nice..

P36: Facebook - Forward [Dec].txt - 36:39 [W Indar To good... aku suka....] (39:39) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos

W Indar To good... aku suka...

P36: Facebook - Forward [Dec].txt - 36:40 [?ossamovic ?liÉa:Goo] (40:40) (Super)

Makayla Miranda Lewis, PhD in Human-Computer Interaction
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Cerebral palsy, online social networks and change.

Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design

P36: Facebook - Forward [Dec].txt - 36:41 [Fiqi Tq not bad,] (41:41) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos
Fiqi Tq not bad,

P36: Facebook - Forward [Dec].txt - 36:42 [Dana Sanchez Sounds good?] (42:42) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos
Dana Sanchez Sounds good?

P36: Facebook - Forward [Dec].txt - 36:43 [Khan SbÊá nyce idea] (44:44) (Super)
Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos
Khan SbÊá nyce idea

P36: Facebook - Forward [Dec].txt - 36:44 [Steven OllekÊákinda like picas..] (45:45) (Super)
Codes: [+Comparison [Facebook]] [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos
Steven OllekÊákinda like picasa

P36: Facebook - Forward [Dec].txt - 36:45 [Ronan Ryan Resioon] (46:46) (Super)
Codes: [+Non-English [Facebook]] [+Non-English: Spanish [Facebook]]
Memos: [Translation P36-46]
Ronan Ryan Resioon

P36: Facebook - Forward [Dec].txt - 36:46 [Julie Gartland Huh....wat is d..] (47:47) (Super)
Codes: [+English [Facebook]] [+Question: What [Facebook]] [+Sentiment: Neutral [Facebook]]
No memos
Julie Gartland Huh....wat is dis?! =P!

Codes: [+English [Facebook]] [+Sentiment: Positive [Facebook]]
No memos
Gus BrownÊ I LIKEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE

P36: Facebook - Forward [Dec].txt - 36:48 [Omar Bennani Comment tagger le..] (49:49) (Super)
Codes: [+Help: Community [Facebook]] [+Non-English [Facebook]] [+Non-English: French [Facebook]] [+Question: What [Facebook]]
Memos: [Translation P36-49]
Omar Bennani Comment tagger les photos sur fb

P36: Facebook - Forward [Dec].txt - 36:49 [Nate GorbyÊ Much like the tech..] (50:50) (Super)
Codes: [+Comparison [Facebook]] [+English [Facebook]] [+Sentiment: Neutral [Facebook]]
No memos
Nate GorbyÊ Much like the technology in iPhoto.

P36: Facebook - Forward [Dec].txt - 36:50 [?? awesome] (51:51) (Super)
Cerebral palsy, online social networks and change.

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City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

Juanma Nuel Sure?

Hugo Enrique Leverberg: me parece muy bien
### B.5 Study Three: Questionnaire (chapter 7)

#### B.5.1 Spreadsheet data

<table>
<thead>
<tr>
<th>Have you experienced a website change within the last 6 months? (for example: task structure or interface design)</th>
<th>Briefly describe the change you experienced:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
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<tr>
<td>No</td>
<td>Yes</td>
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<td>No</td>
<td>No</td>
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<td>No</td>
<td>Yes</td>
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<td>Yes</td>
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<td>Yes</td>
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<td>No</td>
<td></td>
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<td>No</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Makayla Miranda Lewis, PhD in Human-Computer Interaction  
City University London, Centre for HCI Design
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes</td>
<td>tumblr icons changed... also foursquare has changed the position of their checkin icon to bottom middle.</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Facebook interface changes and automatic setting changed and various other settings in connections with groups and pages</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Twitter went from a single column format to a multi-column interaction.</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Twitter, i was unable to find anything. Voiceover output is complete rubbish the site is virtually unusable.</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>I'm stretching this a bit but Arts Council England website changed from being one that was accessible to completely crap for me. From a cognitive point of view I can no longer find information I am looking for. It is difficult to click and get options from the drop down boxes I can't navigate the website It hurts my eyes and makes co-ordinating between my brain, eyes and hands impossible. It is white text on brown (I'm dyslexic). The pop up boxes are jarring I have not used it since and return only when I absolutely have to I complained and got the stroppestiest reply back ever that it was tested basically told in Arts Council language to F-off. Festival London 2012 have just launched their new website and facing similar reaction only it has been cc'd to Ruth McKenzie CEO of Cultural Olympiapad. They are also being defensive and saying it is a matter of taste. (check tweet responses from @abalf) Happy to share the emails as illustration on how they are dealing with it (not and responses from Jamie Knight and David Colley</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Facebook added some features to my account that I was not aware of, such as face recognition software.</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Facebook - changed the navigation and profile page</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Various improvements on some of the sites I use regularly</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Whole architecture changed as well as visual design.</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Teuxdeux.com produced an app alongside their website.</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Twitter introduced their new, single page site.</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>twitter changed mobile site to be more ajax loading and look like main site. which i was using when overseas to use less data</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Multiple changes to multiple sites I use...</td>
</tr>
<tr>
<td>How did you feel about the change you experienced?</td>
<td>Did you continue to use the website after the change was implemented?</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Open-Ended Response</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Annoyed. Have not returned since.</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Extremely frustrated</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>n/a</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>It took a while to get used to the new options but the changes made the website simpler to use</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>I prefer to have a submit button rather than just using the enter key.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Confused at first. Now it doesn't bother me.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Not applicable</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>r</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>I didn't care for it, and it seemed arbitrary.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>takes a while to adjust to new layouts</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>surprising and hard to figure out where was the functionality or section I was familiar with</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>regarding foursquare - i need to remember this for the future. foursquare did warn me about this change in the app when i launched it. tumblr - found the on of button icon used odd and wondered whether users' would understand that this is 'log off'.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>I don't mind change</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>I am still confused by it.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Frustarted that twitter has ignored a11y</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>Like being slapped - can cope with changes to sites but when it is radical enough to lock you out and it was a useful resource before it is telling me we don't want your kind, you are not our kind of customer.</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>I was shocked that I had not been told and had to rely on other people warning me on Twitter.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>I lost some features that I'd relied on so was quite angry, particularly links to videos and links I'd put in my update status.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>there was no pre-warning about this - just changed one day. Once I got used to teh new site it was ok.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Fantastic. I now have my todo list on the go which is where I need it most.</td>
<td>Yes</td>
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<td>Initially - AAAAAAAAAAAAAAAAAARGH. Found it quite disorienting and confusing, having to relearn how to do everything.</td>
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<td>It now looks nicer but does not feel as fast and you get more ajax loading wheels waiting for the content</td>
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<td>Depends on the change(s) some good, some frustrating...</td>
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<th>Generally, how significant are the following in influencing your acceptance of a website change?</th>
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<th>Knowledge of the change before its implementation - Insignificant</th>
<th>Knowledge of the change before its implementation - Very Insignificant</th>
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Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
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Insignificant  & Significant  & Significant  & Significant  & Very Insignificant  \\

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Makayla Miranda Lewis, PhD in Human-Computer Interaction  
City University London, Centre for HCI Design
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City University London, Centre for HCI Design
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Can you highlight any other factors which are important in influencing your acceptance of a website change?

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<th>Opinions of others experiencing the change - Very Significant</th>
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<td>how much it saves time or improves the performance of the service</td>
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<td>Whether it actually makes the user experience better.</td>
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<td>As long as they have some sort of tutoring program after the changes are made, I'm happy. Changes are confusing at times &amp; makes it difficult to maneuver the website.</td>
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Certainly, the nature of the change. When Twitter rolled out the major redesign to its web interface a while back I was pretty happy with it; it was a huge improvement, both aesthetically and functionally.

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<tr>
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<th>Insignificant</th>
<th>does it still allow me to do what I came to do? if yes, I'll stay, if not, I'm gone!</th>
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<th>letting me know that there are changes when I launch a website for the first time (since a change) is always helpful.</th>
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<th>Nope - if they did the above it would make a huge difference (the don't)</th>
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Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Very Significant | Insignificant | Ease of use
---|---|---
| Insignificant | that it is an improvement and there is a clear reason for the change not just a hidden reason such as its more convenient for technical support |
| Insignificant | If the change is an improvement I should be able to accept it without consultation or notice |
| Insignificant | it was a commercial website - I am not the client but a user, If I was a client all the above would be very significant |
| Very Significant | | |
| Significant | if I did not rely on a past feature and that the new change does not make it slower or harder to use |
| Insignificant | Insignificant | I'm used to coping with changes |

**B.5.2 SPSS data**

| id | q1 | q2 | q3 | q4 | q5 | q6 | q7 | q8 | q9a | q9b | q9c | q9d | q9e | q9f | q9g | q9h | q10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 1 | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! | #NULL! |
| 2 | 1 | 2 | 1 | 3 | 1 | 2 | #NULL! | 1 | 1 | 1 | 2 | 4 | 3 | 3 | 4 | #NULL! |
Cerebral palsy, online social networks and change.

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Makayla Miranda Lewis, PhD in Human-Computer Interaction
City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

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Makayla Miranda Lewis, PhD in Human-Computer Interaction  
City University London, Centre for HCI Design
Appendix C - publications and presentations

A list of all publications, presentations, training, events and other achievements associated with this PhD work is given below:

C.1 Publications

- 10/2012 Technical Communication UK 2012 Conference (TCUK’12), Newcastle, UK “A five-stage process for social media change”
- 06/2012 The ACM conference on Designing Interactive Systems (DIS’12), Newcastle, UK “A five-stage process for online social network change”
- 03/2012 27th Annual International Technology and Persons with Disabilities Conference (CSUN’12), San Diego, USA “aOSN-cp model to assist social media change”
- 10/2010 12th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS’10), Orlando, USA “Cerebral palsy and online social networks”
- 07/2009 11th Human-Centred Technology Postgraduate Workshop (HCT’09), University of Sussex, UK “The analysis of online social network services to include users’ with cerebral palsy”

C.2 Presentations

- 10/2012 Technical Communication UK 2012 Conference (TCUK’12), Newcastle, UK “A five-stage process for social media change”
- 06/2012 The ACM conference on Designing Interactive Systems (DIS’12), Newcastle, UK Poster session “A five-stage process for online social network change”
- 04/2011 City University London (Centre for Human-Computer Interaction Design) Open Day, UK “The unforeseen affects of changing your website on people with disabilities”
- 03/2012 27th Annual International Technology and Persons with Disabilities Conference, San Diego, USA “aOSN-cp model to assist social media change”
Cerebral palsy, online social networks and change.

- 01/2012 Web Accessibility London Meetup 2 (a11yLDNmeetup), London, UK “Mapping #NewTwitter change approach to develop a 5-stage model for social media change management”
- 06/2011 Accessibility Hack Days, Birmingham, UK “How people with cerebral palsy use online social networks”
- 05/2011 BBC Ouch! Podcast, London, UK Contributor for “Disability and social media”
- 04/2011 City University London Centre for HCI Design Open Day, UK “The affects of changing social networks on people with disabilities” Makayla Miranda Lewis Submission for PhD Writing-Up Position (September 2011) 24
- 03/2011 City University London, UK Guest lecture for MSc human-centred systems; Module: inclusive design “Cerebral palsy and online social networks”
- 09/2010 Web Accessibility London 2010 (a11yLDN) “What is accessibility?” and “Online communication and users’ with motor impairments”
- 07/2010 E-Access’10 Technology for All Conference Round table session chair “Are online social networks accessible to users’ with motor disabilities?”
- 07/2010 Research2 PhD Forum, Loughborough University Co-workshop presenter “Approaches to dealing with data overload”
- 04/2010 City University London, UK Centre for HCI Design MPhil/PhD transfer seminar “Technology use in the CP community”
- 04/2010 City University London, UK Guest lecture for MSc human-centred systems; Module: inclusive design “Cerebral palsy and online social networks”
- 09/2009 Accessibility 2.0 –Million Flowers Bloom Conference, Microsoft London, UK Blog Entry: Makayla Lewis on Social Networking for people with Cerebral Palsy - Better inclusion

Makayla Miranda Lewis, PhD in Human-Computer Interaction
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- 07/2009 11th Human-Centred Technology Postgraduate Workshop, University of Sussex, UK “The analysis of online social network services to include users’ with cerebral palsy”
- 04/2009 City University London, UK Centre for HCI Design Seminar “Computer-mediated communication (non) usage within the cerebral palsy community”
- 04/2009 West London Disability Youth Forum, UK “Examination of online social network services to further include users’ with physical disabilities: cerebral palsy?”
- 03/2009 Oxford Internet Institute (University of Oxford), Oxford, UK Makayla Miranda Lewis Submission for PhD Writing-Up Position (September 2011) 25
  Information and Web Science Doctoral Workshop “How can physically disabled on-line communication users’, especially those with cerebral palsy, be further included in social network services?”
- 03/2009 Action Disability Youth Project, UK “The analysis of online social network services to further include users’ with physical disabilities: cerebral palsy.”

C.3 Training

- 05/2011 Birkbeck University College London, UK 12-week course in Academic Writing: How to write a PhD
- 02/2010 University of Surrey - Department of Sociology, Surrey, UK Day course in Social Research: ATLAS.ti 5.2 one-day introductory hands-on workshop

C.4 Events

- 09/2011 2nd Annual Web Accessibility London Unconference (a11yLDN), London, UK organizer
- 09/2010 1st Annual Web Accessibility London Unconference (a11yLDN), London, UK organizer
- 05/2010 City University London, UK Organizer for Demonstration Session: iPad, can it benefit the cerebral palsy community?
- 05/2010 City University London, UK Organizer: Cerebral Palsy Awareness Day
- 09/2011 INTERACT ’11, Lisbon, Portugal Student Volunteer
- 09/2009 Accessibility 2.0 – Million Flowers Bloom Conference, London, UK Student Volunteer
- 09/2009 23rd BCS conference on HCI, Cambridge University, UK Student Volunteer

C.5 Other achievements

- 10/2010 ACM SIGACCESS Scholarship to attend ASSETS’10 Conference on Computers and Accessibility
- 07/2010 Women in Computing Research London Hopper Colloquium, 2nd prize for poster session
Cerebral Palsy and Online Social Networks

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ABSTRACT
This study qualitatively explores the experiences and challenges faced when people with cerebral palsy use online social networks. Fourteen interviews were carried out consisting of participants with different types of cerebral palsy. The study identified the reasons for use and non-use and also discovered key themes together with challenges that affected their experiences. For example abrupt and frequently changing online social networks were reported to slow down or prevent use. In spite of this, the study recognized the potential to help people with cerebral palsy (CP) to overcome their disabilities. Existing HCI literature suggests that OSNs have the potential to help people with cerebral palsy (CP) to overcome their mobility, access and communication limitations to enable communication independence [3]. In spite of this, there have been no studies that focus solely on OSN experiences and challenges faced among users with CP. Existing studies like [4] have looked at OSN use and barriers among people with disabilities, therefore making their findings open to interpretation when considering the requirements of OSN users with CP. The goal of this work is to address this gap in research to make this community visible.

Categories and Subject Descriptors
H5.m. [Information Interfaces and Presentation (e.g., HCI)]: Miscellaneous, K4.2. [Computers and society]: Social Issues

General Terms: Human Factors

Keywords
Cerebral palsy, online social networks, online social network use

1. INTRODUCTION
Since the first online social network (OSN) launched in 1997 the growth in OSN recognition and use has been significant. Today, OSNs like Facebook, MySpace and Bebo have emerged as service leaders and draw in hundreds of millions of international users. In the United Kingdom 49% (of 16.6 million) Internet users are using OSNs and are making over 24 million visits a month [1, 2]. However, such OSNs are often directed at persons without disabilities. Existing HCI literature suggests that OSNs have the potential to help people with cerebral palsy (CP) to overcome their mobility, access and communication limitations to enable communication independence [3]. In spite of this, there have been no studies that focus solely on OSN experiences and challenges faced among users with CP. Existing studies like [4] have looked at OSN use and barriers among people with disabilities, therefore making their findings open to interpretation when considering the requirements of OSN users with CP. The goal of this work is to address this gap in research to make this community visible.

2. METHOD
In order to examine OSN experiences and the challenges faced by these under represented users, an exploratory interview study was carried out. Fourteen interviews were carried out with participants who have different types of CP. Participants were predominately female (n=10), all aged over 38 years and had diverse backgrounds. The following questions were addressed: Where and when do they use OSNs? What is their purpose for using OSNs? Do they require adaptive technologies and or support to use OSNs? Do they experience any problems when using OSNs? What are the advantages and disadvantages of using OSNs? What are their reasons for not using OSNs?

The interviews were audio and video recorded. The raw data was transcribed verbatim and user profiles were developed to support data familiarization. The data was then coded using the general inductive approach [5] and a model based on the most important codes answering the study questions was developed and used to report the findings. However, only the key themes and challenges will be summarized here.

3. FINDINGS

3.1 Summary
Thirteen of the 14 participants reported using OSNs, primarily Facebook, for up to 6 hours a day at home or at their place of work or education. Participant’s family members and friends introduced them to OSNs, and they were the people the participants often communicated with. This communication involved sending public and private messages to find out what their online network of friends was doing and to organize face-to-face communication. Participants also reported communicating from other devices like trackball, screen readers and word prediction software were also reported (see figure 1a). On the other hand, a participant reported not using OSNs due to a lack of access and training in conjunction with a reduced confidence to ask for help. The participant interviewed reported: “I do not have a computer at home and I don’t go out much … they have this Internet thing around the corner at the centre but I don’t know how to use one and I don’t want to be a annoying”. Further to this, the rich qualitative data also identified four key themes that affect OSN experiences that have not been previously reported:

3.1.1 Independence
Participants reported OSNs were a vital, often the only, way to reduce their isolation and carry out independent communication. Two participants interviewed reported: “I can’t socialize without it … it is like food”; “I think from a wider disability perspective they enable people that are isolated to have a life. However, this
independence is often reduced by change (see section 3.1.2) and the challenges the technology creates (see section 3.1.5), as support individuals are often required to resolve problems or assist use (see figure 1b). However, this support is often felt inappropriate. One participant interviewed reported: “...you are phoning everyone to come and help and I think that is wrong”.

4. SUMMARY
This study explored the experiences and challenges faced when people with CP use OSNs. The study identified the reasons for use and non-use, and discovered key themes together with challenges that affected their experiences with OSNs. The findings from the study indicated that the participants use OSNs for similar reasons while taking partial advantage of the services provided. They reported 4 key themes and 5 challenges that often slowed down or prevented OSN use. In spite of this, participants reported that OSNs were a vital way to communicate, and even though these themes and challenges are occurring, they indicated the technology would continue to play a vital role within their lives. The findings from this study will act as a starting point to be built on in later research.

5. ACKNOWLEDGMENTS
Thanks to Stephanie Wilson for providing advice and support; Action Disability Kensington and Chelsea, Scope charity and City University London Learning Success for helping to elicit participants and EPSRC for funding the research.

REFERENCES

Figure 1: a) interview subject using large print keyboard and screen reader software; b) interview subject requiring an alternative and augmentative device and a support individual

3.1.2 Change
Abrupt and frequently changing OSNs often slowed down or prevented use. Participants indicated changes to OSN layouts were the most challenging. One participant interviewed reported: "I don’t like how they forced it onto people you must change to this because we can do this … when you used to have the wall the old interface was clearly defined, you used to have the barriers this was your wall this was your profile". Additionally, these changes often affected assistive technology in conjunction with communication quickness. This meant participants are required to re-learn the number of clicks when using switches, often making interacting with OSNs time-consuming. One participant interviewed reported: “personal assistant: the switch she knows how many times she is going to click and press there and there … they are changing she has to learn new … it makes time slow because they keep changing. Interviewee: yes”.

3.1.3 Privacy
Participants indicated that using OSNs offered greater privacy than conventional communication such as telephone, text message and face-to-face. They were concerned about being observed. One of the participants interviewed reported: “... at home it is more personal so I can go on Facebook, outside my home environment it is not personal enough”. Contradictory to this, participants were also concerned about the privacy of the information they shared. One of the participants interviewed reported: “I don’t want people to see all my pictures because it is private to me”. This meant participants were only taking partial advantage of the OSN services provided.

3.1.4 Trust
Participants reported a lack of trust among their online network of friends. They were concerned about the legitimacy of the users they were communicating with. This meant they trusted very few of the people they talked to. One of the participants interviewed reported: “... because of the way my life is I find it hard to let people in and trust people ... I may have 561 friends on Facebook but I have one close friend”. Further to this, participants reported feeling displeased with some of their ‘friendships’ as they felt it affected their privacy. One participant interviewed reported: “my supervisor is on my friend list but I rather she wasn’t…because it is an invasion of my space … Facebook is my personal space”.

3.1.5 Challenges the technology creates for this population
In addition to the key themes, participants also reported challenges that affected their experiences with OSNs. These included: 1) slow text input, 2) poor interface features e.g. small target areas, 3) lengthy and complicated tasks especially when sending messages to friends, 4) lack of user interface personalization e.g. hard-coded text size and colour, and 5) unavailable or inappropriate within-OSN help. All of which, created confusion and slowed down or prevented use.
A five-stage process for online social network change

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ABSTRACT
A longitudinal study was carried out to investigate how changes are introduced to online social networks (OSN), their effect on users and the factors that encourage change acceptance. The study was divided into two parts: 1) investigated real-world example of OSN change by observing the actions of change agent (Twitter.com) and their effect on OSN users and 2) a survey that asked OSN users about their experiences of change. The study was used to develop a novel 5-stage process for OSN change for change agents to follow.

Author Keywords
Online social networks, change, web 2.0 and twitter.

ACM Classification Keywords
H5.m. [Information Interfaces & Presentation (e.g. HCI)]: Miscellaneous, K.4.2. [Computers & Society]: Social Issues

BACKGROUND
Since Twitter launched in 2006 it had undergone minimal user interface (UI) changes [1] until September 2010. From September 2010 through February 2011, Twitter.com began to roll out #NewTwitter, a completely overhauled edition. This change to the layout and functionality included the ability to see pictures and videos without leaving Twitter.com itself and adjustment of button locations for @mentions, Retweets and messages [1]. The goal of this work is to understand Twitter change approach and users’ reactions because this is not represented in HCI literature.

Method
The study took an overview of users’ reactions to change in Twitter. This was done by investigating tweets that referenced the #NewTwitter hashtag over a 6-month period. It used an event-sampling method where tweets mentioning #NewTwitter on Tuesdays were collected. Tuesday was chosen because it is the most popular day for tweets accounting for 15.7% of tweets [2]. Researchly 1000-day viral analytics data mine chart was used to gather all tweets. Twenty-four events were identified. A total of 203,889 tweets were gathered and a sample size of 2,400 tweets that included the first 100 tweets with hashtag #NewTwitter from each Tuesday was coded using the general inductive approach [3] to discover why users were tweeting about #NewTwitter. The key findings are summarized here.

Findings
The study found that most of #NewTwitter mentions occurred during the first four weeks of its existence. During the early stages of roll out tweet sentiments were positive (54%) as a result of initial user excitement. However as the roll out continued this decreased to 13%. This was attributed to users misunderstanding the purpose of #NewTwitter, disliking the new UI and its lengthy roll out.

The study also found that most of #NewTwitter mentions were negative (n=1058 compared to positive, neutral, spam sentiments (n=537, n=302, n=503)). This was attributed to excessive problems with the new UI (n=374). As a result, users either refused to try the new UI or reverted back to the old UI. This non-acceptance was reinforced by Twitter’s poor response to feedback: users were repeatedly asking for problem updates that were largely unanswered. However the study also found positive qualities: users responded positively to consultation (during the later stage of roll out where Twitter asked for feedback via a questionnaire) and repeated use of change champions. Both encouraged users to revisit the new UI. The study also identified five key themes: the Twitter change approach; the inappropriate use of consultation and feedback and users’ experience, poor information concerning the change and problem solving; lengthy roll out of the new UI; and the positive use of community champions. The study found that the Twitter.com approach to change exemplified Lewin (1951) and Lippit (1958) [4] change management models and Ohlsson (2009) suggestion that existing version and changed version should overlap for a period of time [5].

USER REQUIREMENTS
A survey study that investigated the factors that affect OSN users’ acceptance of change was carried out. Forty-one responses were gathered. The following questions were addressed: what website changes are Internet users experiencing? How significant is knowledge of the change before it is implemented, consultation before, during and after the change is implemented, help and support offered before, during and after the change is implemented, and opinions of others experiencing the change in influencing users acceptance of a website change? The responses were
exported to statistical analysis software for quantitative analysis. The key findings are summarized here.

Findings
Twenty-three users had experienced OSN change, 84% of them continued to use the website after the change was deployed. The study also found three key factors that influence change acceptance: knowledge of the change was reported as ‘very significant’ or ‘significant’ (50%, 14.6%), consultation throughout and after the change was reported as both ‘very significant’ and ‘significant’ (53.8%, 51.2%), help and support before, throughout and after was reported as ‘significant’ (75.6%). The survey study provided further insight into the factors that encourage change acceptance within OSN.

5-STAGE PROCESS FOR OSN CHANGE
Through distilling the findings from the study together with the change management models [4, 5]. However these models were not developed for OSN change nor do they provide solutions to the key findings identified, consequently they have been used as a supplementary resource. This paper puts forward a 5-stage process for OSN change.

Stage One: Before
It is recommended that before an OSN change commences knowledge of the change should be delivered to OSN users. This notice should include answers to the following questions: What is the change? Why is the change occurring? When will the change occur? How will users receive the change?

Stage Two: Unfreeze
It is recommended that roll out of the new UI to all OSN users take a maximum of 2-weeks. It was evident in that lengthy rollouts cause frustration resulting in non-acceptance. The type of roll out has been left to the discretion of the change agent. However it is recommended that the change be opt-in not opt-out. Furthermore it is recommended that help and support be offered. This should include the purpose of the change, when and how users will receive the change and support for problem solving.

Stage Three: Persuade
It is recommended that an overlap of old UI and new UI be offered. This allows users to gradually gain confidence. Additionally it is recommended that consultation and feedback be offered as this allows OSN users to ask questions and give opinions. Furthermore it is recommended that community champions be frequently used to encourage users to revisit the new UI. Additionally information should be provided that includes UI updates, problem solving, impending refreeze (stage 4) updates and links to feedback and resources that encourage users to revisit the new UI. Finally, towards the end of this stage it is recommended that the change agent engage with non-accepters to respond to concerns and boost confidence.

Stage Four: Refreeze
It is recommended that community champions be used to encourage users to revisit the new UI and offer positive support. It is also recommended that this stage occur to all OSN users within one day to avoid confusion, also during this time feedback, help and support should be continued.

Stage Five: After
It is recommended that after an OSN change an evaluation should occur. The change agent should consult with users after stage 4 to identify issues with the new interface and or the change approach used. This will aid future changes and ensure users’ opinions are heard. It is also recommended that help and support be provided until the next change commences.

REFERENCES
Short Title: aOSN-cp model to assist social media change

Strap line: An aOSN-cp model to support online social network users with cerebral palsy when providers introduce change.

Conference: 27th Annual International Technology and Persons with Disabilities Conference (CSUN’12)

Type: Lecture

Session Length: 60 minutes

Date/Time: Friday, March 2, 2012 – 4:20 PM PST

Location: Madeleine CD, 3rd Floor


Description (Abstract):

Internet use in the United Kingdom is almost the highest in Europe, with over 65% of households accessing the Internet [...]. Forty-nine percent of these users are using online social networks (OSNs) like Facebook, Twitter, Bebo and YouTube and are now making over 24 million visits a month [1, 2, 3]. Nevertheless, OSNs are often directed at people without disabilities. Existing human-computer interaction (HCI) literature suggests that OSNs have the potential to help people with cerebral palsy (cp) to overcome their mobility, access and communication limitations to enable communication independence [4, 5]. As conventional communication methods like face-to-face communication, telephone communication and text message communication are often difficult to use and can limit the opportunities for these users to engage in successful socialization [...]. Therefore people with cp often see online communication especially OSNs as an attractive alternative [5, 6]. In spite of this, there have been no studies that solely look at OSN experiences and challenges faced among users with cp. The goal of this research was to address this gap in the research to make this community visible.

An exploratory interview study was carried out. The study explored the experiences and challenges faced when users with cerebral palsy use OSNs. Fourteen semi-structured interviews were carried out consisting of participants with different types of cp. The study found, among other factors, that abrupt and frequently changing online social networks slowed down and or prevented use [4]. For example during September 2011 Facebook.com introduced three functional changes that included a revamped friend lists, real-time news ticker and a subscribe button. Subsequently during the following month further changes that included a major overhaul of user profiles, new applications for playing music and watching videos were deployed. Such changes often affect assistive technology resulting in users relearning the number of clicks when using switches, making interacting with OSNs time-consuming. In spite of this, the study also identified that the technology is a vital way for users with cp to communicate with friends and family and would continue to play a key role within their lives.

To further explore the effects of abrupt and frequent changing OSNs a longitudinal web 2.0 monitoring and analysis study was carried out. The study identified how OSN Twitter.com changes, specially # Old Twitter to # New Twitter, are introduced, their affect on users, and the factors that encourage change acceptance and non-acceptance. More than 950,000 tweets mentioning #(hashhtag) New Twitter were posted between September 2010 to February 2011, however the 60-minute lecturer will focus on 600 tweets from key discrete occasions: peaks. The results of the study were used alongside common change management approaches and theories to develop an innovative 5-stage process for online social network change (aOSNcp) for OSN change agents to follow. The process defines the requirements for successful online social network change including the OSN change agent responsibilities before, during and after the change.

The lecture will summarize the exploratory interview study; introduce the key inhibiting factor and the examination of New Twitter; and present the aOSN-cp process as a method to assist online social network providers during user interface change process without alienating users with cp.

[1] eNation reports – Social networking sites lock out disabled users – AbilityNet.


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City University London, Centre for HCI Design
Cerebral palsy, online social networks and change.

Title: A five-stage process for online social network change

Session type: Presentation (40 mins.)

Speaker Name: Makayla Miranda Lewis

URL: http://www.technicalcommunicationuk.com/index.php?/programme-2012/a-five-stage-process-for-online-social-network-change.html

Description (Abstract):

Lewis (2010) [1] looked at the experiences and challenges faced when people with the physical disability cerebral palsy use online social networks (OSN) and identified that abrupt and changing website layouts and content prevented people from communicating online or them down. Based on these findings, a longitudinal web 2.0 monitoring and analysis study was carried out to investigate how changes are introduced to OSNs, their effect on users and the factors that encourage change acceptance on the part of users. The longitudinal study was divided into four studies: three studies investigated real world examples of OSN change by observing the actions of change agents, e.g. Twitter and Facebook, and their effect on OSN users, and a survey study asked OSN users about their experiences of change [2]. The studies were used to develop a novel 5-stage process for OSN change for change agents to follow. This presentation will summarize the four studies and introduce the change deployment methodology.


Additional information:

I believe presentation will reach out to attendees with interests that include: issues with different media e.g. social media, software development methodologies and disability.
Title: Makayla Lewis on Social Networking for people with Cerebral Palsy

Session type: Blog

Speaker Name: Makayla Miranda Lewis


Description (Abstract):
Please meet Makayla Lewis, researcher into social networking websites for people with cerebral palsy. Makayla is a PhD student in Human Computer Interaction Department at City University and a volunteer at Accessibility 2.0. Please do come and talk to her about this important contribution to the field of web accessibility.

Better inclusion for users with Cerebral Palsy in Social Networks, is this necessary?
Finding information about how people with Cerebral Palsy (CP) use social networks can be tricky. If you search “cerebral palsy” AND “social networks” in Google Scholar you would get 1,580 returns, of those, most would be miscellaneous, others partly-relevant, but very few would be considered exciting. These exciting studies look at the accessibility of websites when using assistive technology to classify barriers, some identify the types of communication within social networks directed at and used by disabled users, while others look at improving computer and Internet use for users with physical disabilities by evaluating, examining and developing assistive technology. Noticeably you would find that these studies do not define what constitutes disability or focus solely on CP.

As a caregiver, friend and co-worker to several social network users with CP, my passion for research lies with understanding the needs of these users and their relationship with social networks. My research aims to “Examine how individuals with CP can be better involved in social networks”, to ultimately provide guidance for researchers, developers and professionals. To do this, I have initially carried out an exploratory interview study investigating Computer, Internet and Social Network use within the adult CP population. Some of my findings have included: CP users visit social network websites (favoring Facebook and Bebo) at least once per fortnight to find and communicate with existing and new friends (primarily to send “How are you?” “What are you up to?” messages, share photos and organize face-to-face meetings). I have also identified four key factors that prevent CP users from using social networks:

- Time on and complexity of tasks
  - Abrupt or regular interface changes
  - Text-based help “It would be nice to have videos or photos… text is hard to read sometimes”
  - A reduction in perceived communication independence and privacy

I believe that the web especially social networks are valuable resources for people with CP, as they allow these users to maintain, discover and strengthen friendships from the comfort of their homes, as in some cases frequent Face-2-Face communication may not be possible. I will be attending the Web 2.0 Accessibility Conference 2009 primarily to network and discuss my research with like-minded researchers and professionals in the area of accessible web design.

I look forward to seeing you there!

Makayla Lewis