



Player questionnaire results

10 Most Wanted evaluation

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1. Background

The 10 Most Wanted project develops a game-based approach to crowd-sourcing aspects of curatorial research concerned with the discovery and verification of previously undocumented facts about collection items. The technical platform for the project is a custom-built website at 10most.org.uk (the website). It is used to promote the 10 Most Wanted project, to recruit players, to set challenges and to document the results of the game. As such, it plays a key role, both in terms of publicising the project and in terms of providing an operational platform for it.

This document reports on a formative evaluation of the website. It is based on a questionnaire assessing how the website meets the requirements and expectations of visitors, i.e. actual and potential players in the 10 Most Wanted game (the game). The aims of the evaluation are to inform the on-going iterative design and development of the game and website and help towards answering research questions in the project relating to engagement, IPR and informed consent.

2. Instrument

Reflecting the fact that the evaluation focuses on a website, an online questionnaire was created that enabled participants to easily switch between website and questionnaire when answering questions. The questionnaire is based on Google Forms¹ and has the following structure:

Questions 1-6: Demographic information about participants, including online and

mobile habits and social network use.

Questions 7-15: Questions relating to a series of tasks to be carried out on the

10most.org.uk website. Participants switch between website and questionnaire, answering questions relating to each task right after

completion.

Questions 16-17: Questions relating to usability and overall user experience of the

website. Question 16 contains the Standard Usability Scale (SUS), a validated instrument (Brooke, 1996) to assess the usability of systems, and Finstad's (2010) Usability Metric for User Experience, extending the

SUS with four questions focusing on user experience.

Question 18: Opportunity for participants to submit open comments not covered by

preceding questions.

The head section of the questionnaire provided participants with an overview of questions and explained that the collected data was anonymous. It also advised participants to get in touch via the project website if they were interested in the results of the study.

3 Sampling

As the questionnaire does not aim for quantitative demographic data but instead for qualitative data describing participants' expectations and experiences of using the website, there is no need

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¹ Google Forms. Available http://www.google.com/google-d-s/createforms.html

for probability sampling. Instead, we employed convenience sampling based on actual and potential users of the website most easily approached and willing to complete the questionnaire.

The questionnaire was accepting responses from 15/02/14 to 12/05/14 and promoted through several channels:

- Registered players on the 10 Most Wanted website
- Adaptive Technologies' volunteer network
- Students at the University of Brighton
- Personal contacts of project partners

The data discussed in this document is based on 23 responses. (Three more responses were recorded after the cut-off date and are not reflected in this report.)

While 23 is a small sample size for an online questionnaire, it is adequate for the purpose of this study. Recommended sample sizes for formative studies are based on Problem Discoverability [p] and Problem Discovery Goal $[P(x \ge 1)]$. Assuming a low p of 0.1 (i.e. only one in ten users spots a specific problem) and relatively high P of 0.9 (i.e. we aim to discover 90 percent of problems), the recommended sample size is 22 using Sauro and Lewis's (2012) formula for sample sizes in formative user research: $P(x \ge 1) = 1 - (1 - p)^n$ solved for n.

4. Findings

4.1 Participant characteristics

Participants in the study were 39% male and 61% female. While most age ranges (apart from 75+) were represented, an overwhelming majority of participants (90%) were between 16 and 54 years old with 25-34 being the largest age group (43%). This mirrors key characteristics of Facebook UK's demographics. According to real-time demographics data from Fanalyzer¹, Facebook UK has more female (51.4%) than male (48.6%) users, an overwhelming majority (79%) is between 18 and 54 years old (no statistics for the 16-18 available) and 25-34 is the largest age group (26%). As Facebook plays an important part in the project with regard to recruitment, content submission and communications, the sample can be seen as a good demographic match for potential visitors to the website.

With regard to participants' Internet, mobile and social network use, the vast majority of respondents could be classed as tech savvy with frequent and sustained exposure to web technologies on various platforms. 87% of respondents spend between 1 and 5 hours per day online using a *desktop* computer. In addition, 47% of respondents go online for 1 to 3 hours per day on a *tablet* computer and 65% go online for 1 to 3 hours per day on their *mobile* phone. It can therefore be assumed that participants are highly media literate and have a good working knowledge of commonly used designs, conventions and interaction patterns on the Web.

Mobile phone use in particular stands out with 96% of respondents owning a smartphone with internet access and 65% reporting that they check their mobile phone between 20 to 50 times per day. In combination with the reported online activity on mobiles and tablets (see above), this indicates the importance of a cross-platform design for the 10 Most Wanted website displaying well on different screen sizes and being usable with both, pointing devices and touch input.

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¹ Fanalyzer. Real-time Demographics Data - Facebook UK. Available http://www.fanalyzer.co.uk/

With regard to familiarity with social networks, most respondents use Facebook (87%), Twitter (70%) or Google+ (52%). However, the regularity of social network use varies strongly. For instance, the percentage of respondents who use Facebook several times per day is equal to the percentage of respondents using Facebook once a month or less (both 22%). Apart from the "big three" social networks, many respondents use one or more other social applications including WhatsApp (39%), Instagram (39%) and SnapChat (17%). There was not a single respondent who did not use at least one social network. It can therefore be assumed that all respondents to the questionnaire are familiar with social networking concepts and etiquette and would have no fundamental problems using social channels to contribute to the game.

4.2 Tasks on the website

In order to get a better understanding of usability and user experience problems concerning different aspects and functionality, participants were asked to complete a series of tasks on the website and after each task answer a series of questions based on their experience. This structure ensured that participants' responses would reflect their immediate experience and minimise the effects of conceptualisations when answering from memory at a later stage.

Most respondents user a desktop computer (78%) to complete the tasks, 17% used a tablet computer and 5% used a mobile phone. The following sections discuss responses for each ask.

4.2.1 Create an account on the 10 Most Wanted website

The relevance of this task stems from the fact that only content submitted by registered users could be used by curators to compile the evidence trail for discovered facts, which may include images and verbatim quotes from players automatically protected by copyright. The registration process ensures that players agreed to the Terms and Conditions of the website, which stipulate that players give the project a non-exclusive licence to use submitted content for this purpose, and therefore is critical to participation.

(The questionnaire instructions had the proviso that participants who already had an account should skip this step, however, the data suggests that all respondents completed this task.)

Responses indicate that the majority of participants found the account setup easy (69%) and were confident to have completed the task successfully (82%). However, open comments suggest that the sign-up procedure could be improved, with 25% of respondents offering criticism and advice in the open comments section:

- I don't see why you had to create a user account as well as a register... surely all of this could be done through Facebook if that is the main facility you are using for comment / interaction etc?
- why do I need to enter coordinates during setup? [...] entering the captcha codes is frustrating
- The sign up process was unusual in that I'd not used that process before (choosing username, then choosing password through an email - could be made clearer this is the process)
- The presentation of the objects implies that the objects are the place to start, but on closer inspection of the site, I think what you really want is for people to sign up as contributors first, and then to start filling in the blanks on the objects second.
- I thought there was a lot going on here and I did think the onboarding experience could be simplified right down. Experience suggests that the simpler you can keep the form (Name, Username, Password, Submit) the more people will make it through the process. I didn't very much like the temporary password/confirmation email part of the process. You don't need to assign a temporary password and again you might lose people when they have to login and then the first call-to-action is to change a password. [...] I also found the 'profile completion' step slightly odd. Unless its there for a specific purpose, the lat/long information is very unusual

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and feels a little invasive. A social login using Facebook or twitter, given that they're such a big part of the site experience, would really help.

- It took over three hours for a link to set my password to arrive.
- It was also somewhat cumbersome having to register

Based on these comments, it was not clear to all respondents that they could login with their Facebook account. Several respondents found the sign-up procedure "unusual", "cumbersome" or unnecessarily complex, with specific criticism addressed at the email confirmation, temporary passwords, location information and the use of captcha codes.

Recommendations:

- 1. Funnel first-time-visitors visitors to the sign up area
- 2. Streamline the sign-up procedure
- 3. Make clearer the option to login via Facebook

With regard to the primary rationale of asking players to sign up on the website - that they agree to the Terms and Conditions (T&Cs) and thereby grant the project a license to use their contributions in the documentation of collection artefacts - the questionnaire results are mixed.

The vast majority of respondents (91%) say they understand the simplified version of the T&Cs of the website. This gives strong support to the idea of providing players with an abbreviated version of the T&Cs during sign-up.

With regard to a deeper understanding of the T&Cs, participants agree (44%) and disagree (43%) in almost equal numbers to the statement "I understand how information I contribute to the project can be used and reproduced". As this is a key point in the T&Cs, it would obviously be desirable if more people had a better understanding of this point. However, given that on average only 7% of Britons read the online terms and conditions when signing up for products and services (Guardian, 2011), it can be seen as a positive result that supports our tiered approach to getting participants' informed consent.

Considering the problematic topic and the difficult nature of the text in the extended version of the T&Cs, it certainly would present a challenge to further increase the number of participants who fully understand the implications of submitting content to the project. Responses to the final question in this context certainly suggest a low priority for such an effort, as 74% either agree or strongly agree with the statement "*I am happy with the terms and conditions*" and only 4% (one respondent) disagree.

4.2.2 Create a user profile on the 10 Most Wanted website

The relevance of this task stems from the fact that players in 10 Most Wanted are credited for their contributions. For some participants this can translate to indirect financial rewards in the form of improved employment prospects or potential contract work (Elkin-Koren, 2011) and is therefore a major motivation to participate. Attribution in the evidence trail or discovered facts can link to user profiles and thereby help participants towards realising those benefits (e.g. by including a link to a personal or professional site in the profile information).

Responses indicate that respondents had problems creating a profile on the website with equal numbers agreeing (34%) and disagreeing (34%) to the statement "I found this task very easy" and the remainder neither agreeing nor disagreeing. Only 59% of respondents were confident that

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they completed the task successfully. While these results indicate that profile creation could be improved, responses to two further questions in this context suggest that profile creation might be scrapped altogether: 74% of respondents do not like the idea of having a profile on the website. However, when asked whether they would prefer using an existing social network profile instead, opinions were clearly divided with 60% disagreeing and 35% agreeing to the statement "I'd prefer using my Facebook or Twitter profile".

Recommendations:

- 4. Explain the advantages of profiles to players (credits, attribution)
- 5. Streamline the on-site profile creation
- 6. Offer players a choice between using an on-site profile, social network profile or anonymous profile

4.2.3 Look at previous cases that are now closed

Closed cases are included in the website for several reasons. Besides simply documenting past achievements in the project, they are meant to give players an idea of the type of contributions we're looking for and how they might be used in evidencing discovered facts. At the same time they are meant to motivate players by showing the value of their efforts in a larger context.

Responses indicate that most participants (65%) had no problems finding and inspecting previous cases but some participants did not find this task easy (22%) or were undecided whether it was easy or not (13%). Similarly, most participants were confident to have completed the task successfully (74%) but a small minority (13%) were not. Together, the results are encouraging but indicate that there is room for improvement.

Open comments relating to design and navigation on the website provide clues how these improvement could be achieved:

- Maybe rethink the structure and content of the page.
- I think the layout of the pages could be improved.
- When I arrived at the site, my first impression was that there's a lot going on, and I didn't feel that the page
 was funneling me directly at a specific action or area of functionality. [...] I would get rid of 90% of the
 homepage content
- In terms of ease of use, it is difficult to navigate around the website, knowing the current page, and important
 information are not noticeable enough
- Generally, the websites design and content were not convincing. [...] There were too many irrelevant and ambiguous information displayed that created uncertainty
- The layout and design of the site (sorry for this...) is a bit old-hat [...] All a bit texty!
- no top menu for...
- I couldn't find...

Several comments criticise the structure, navigation and information density of the website in various contexts, indicating that these points could be improved.

Recommendations:

- 7. Reduce the information density on the website
- 8. Improve navigation on the site

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With regard to informing and motivating novice players, responses suggest that the solved cases largely fulfil these objectives. A vast majority of respondents (87%) confirmed that looking at solved cases helped them to understand what kind of information is useful. While a large proportion (39%) of respondents found it motivating to look at solved cases, a majority of participants (43%) were undecided in this regard and 17% found it *not* motivating.

Recommendations:

9. Emphasise sense of achievement in solved cases

4.2.4 Read the research tips provided for detectives

In addition to closed cases, which help novice players to better understand what kind of content is useful for curators, the website provides research tips to get players started and explain initial steps for detectives. Testing the viability of crowdsourcing complex tasks is a key aspect of 10 Most Wanted, and the literature suggests that training plays a key role in this context (Bradford and Israel, 2004; Cohn, 2008; Haklay and Weber, 2008; Holley, 2009; Roy et al., 2012). It is therefore highly relevant to make these materials easily accessible and to ensure that they fulfil their purpose.

Most respondents (73%) found this task easy and were confident that they completed it successfully (77%). While some participants found the task not easy (14%) and were not confident they had completed it successfully (14%), open comments suggest this can be linked to problems with the structure, navigation and information density of the website (see above).

Responses were mixed with regard to the clarity and helpfulness of the research tips. While a large proportion of respondents found the research tips clearly written (46%), there also were participants who were undecided about this point (27%) or did not agree that the research tips were clearly written (27%). A similarly mixed picture emerges regarding the helpfulness of the research tips. A large proportion of respondents (41%) found the research tips helpful but this was balanced by respondents who were undecided (36%) or did not find them helpful (23%).

Recommendations:

- 10. Carry out user research on what kind of information would be helpful
- 11. Present the research tips for more clearly

4.2.5 Pick an object and find out what information is wanted

Selecting objects and finding out what information about them is wanted by the museum is of key importance. It is therefore paramount that this task is easy to complete.

The majority of respondents (61%) found this task easy and were confident that they completed it successfully (78%) compared with a small proportion who found the task not easy (13%) and were not confident they had completed it successfully (13%). While site structure, navigation and information density might have played into this (see above), the next question in this set provides additional clues. Only 57% of respondents agreed to the statement "It is clear what information I should look for" with 13% being undecided and 30% being unclear about this key question.

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Open comments provide further clues in this context:

- I like the core activity, but I think perhaps you might need to lead the user through it more explicitly. Even having read the object pages several times, I wasn't 100% clear on how to actually contribute a piece of knowledge. I also thought that the layout of the object information sometimes obscured exactly which bit of knowledge you were looking for help with
- this seems a great idea but I felt frustrated that I did not know any of the information that was 'wanted'
- no top menu for 'open cases' as such you have to click on icon if you are on any other page to get to where the cases are

Recommendations:

- 12. Make it more obvious what information about objects is wanted
- 13. Funnel returning visitors to open cases or last case worked on

While a large proportion of respondents found the objects on the website interesting (46%), a substantial proportion (36%) were undecided on this point and some (18%) found the objects not interesting. While at first sight this is not a great result, it must be considered that respondents were recruited via various channels and did not necessarily have an intrinsic interest in design or plastics. Against this background, 46% of participants expressing an interest is an encouraging result, however, open comments indicate the importance of this aspect and possible ways to make objects more interesting:

- as these were objects beyond my own interests, I did not feel motivated to research them.
- instead of saying there are more images on the modip site, why not show the extra images as thumbnails under the main image

Recommendations:

14. Provide additional images and information to make objects more interesting

4.2.6 Add information for this object

Similar to the previous task, adding found information relating to objects is at the very core of 10 Most Wanted and it is paramount that this task is easy to complete. In order to get feedback on both, content submission via social networks and content submission via the website, this aspect was split into two separate tasks in the questionnaire.

With regard to submitting content via social networks, 35% of respondents found this task easy and were confident that they completed it successfully, with an equal percentage (39%) being undecided and 26% finding the task not easy and being not confident that they had completed it successfully.

With regard to submitting content via the contact form, only 17% of respondents found this task easy and 26% were confident that they completed it successfully, while a large majority of 69% found the task not easy and 61% being not confident that they had completed it successfully.

Respondents provided some information about this problem and how it could be addressed in the open comments:

Reliance on Facebook is a downside. My daughter - a Facebook Native couldn't understand why whereas I'd
been asked to comment on say a cold case, I wasn't able to add my comments on Facebook (because I need to
be a friend - which wasn't)

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- It was also somewhat cumbersome having to [...] trawl through all the comments once more information had been added
- I couldn't find the contact form to use on an object if I didn't want to link my social media accounts

Recommendations:

- 15. Provide clear functionality to submit contributions directly on the website without overloading the original purpose of the contact form.
- 16. Clearly advertise and explain the alternatives of submitting content via the website or Facebook
- 17. Instantly show newly submitted contributions on the object page

4.2.7 Contact the case officer for this object

In order to show a human face and provide players with a personal contact they could address questions to and ask for advice, each object has a single "case officer" assigned who would appear at the top of the "case notes" on each object page, facilitate engagement via the Facebook group and compile the evidence trail for discovered facts. Given the key role of the "case officer", it is therefore important that players can easily contact them.

Only 8% of respondents found this task easy and were confident that they completed it successfully, with 13% being undecided on this question and a large majority of 79% finding the task not easy and being not confident that they had completed it successfully. The open comments provide some additional information in this context:

• it wasn't clear to me who was the case officer for the object, and how to contact them

Recommendations:

- 18. Clearly identify the case officer on the object page
- 19. Explain the role of the case officer and how to contact them

4.3 Issues emerging from open comments

In addition to questions relating to the specific tasks above, participants had the opportunity to leave open comments relating to the website (see *Appendix A.1.5 Open Comments*). While many of the comments referred back to the completed tasks, several themes emerge that are not directly covered in the previous sections.

One recurring theme relates to the overall design and graphics of the website. While some responses offer criticism, others provide concrete suggestions on how to improve the design:

- Make it more fun to use and user friendly. Perhaps contact a UX designer (i.e. freelance) to make a proposition on how to make it more usable.
- Perhaps more visually simple prompts would help.
- the loao is not very appealing
- The layout and design of the site (sorry for this...) is a bit old-hat especially for an organization concerned with design...but that's just a matter of opinion! [...] All a bit texty!
- I'm afraid I don't love the core concept of the site there's a 'Most Wanted' concept in there, which implies a detective-style investigation, but this doesn't really feed through into the presentation and isn't carried on throughout the site. [...] A big top-line graphic (I would lose the logo and header text) inviting me to sign up and begin investigating is more likely to lead people to click through, particularly if its a tablet user, for whom we risk wasting the top third of the screen real-estate
- the logo also doesn't represent anything about plastic designs (more like a most wanted countdown site?

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Some respondents explicitly link design issues to trust, which lends additional urgency to the above design-related comments:

- it is not obvious if this is a real project or not
- Also, the overall visuals make the website seem as if it's a scamming site, thus wouldn't gain users trust to create an account
 or do anything else

Recommendations:

20. Redesign the logo and the overall look and feel of the website

One respondent offered particularly well informed advice, two aspects of which are reproduced here despite not qualifying as a pattern emerging from multiple comments. They refer firstly to the need to better surface players of the game and secondly to the need to more clearly express a value proposition for visitors to the website:

- Something other crowdsourcing sites do a lot of is surfacing the people involved in the process. I know you have a user location map, but if you're offering game-style rewards (points and prizes), why no profile your top contributors? Evidence suggests people respond more to crowdsourcing activities that are associated with a person or personality, but at the moment, there's no 'human' face to the overall experience other than the Facebook avatars.
- I need to feel that I'm getting value through association when I share and also that the people I share with are likely to get value themselves. It's not 100% clear what value I would be sharing at the moment it it a game, a humanitarian effort, a cause, a mystery, a campaign? People will get behind things when they're simple and when they can get what they need to do.

Recommendations:

- 21. Feature players more prominently on the website
- 22. Clearly express the value proposition for potential players

4.4 Usability and overall User experience

The System Usability Scale (Brooke, 1996) as a "quick and dirty" method to evaluate the usability of a wide range of systems is an industry standard with references in over 600 publications (Sauro, 2011). The questionnaire has ten standardised items with five response options each.

The SUS is scored in the following way:

- For odd items: subtract one from the user response.
- For even-numbered items: subtract the user responses from 5
- This scales all values from 0 to 4 (with four being the most positive response).
- Add up the converted responses for each user and multiply that total by 2.5. This converts
 the range of possible values from 0 to 100 instead of from 0 to 40.

(Source: Brooke, 1996; Sauro, 2011)

Various publications have found that SUS is a reliable and valid measure of perceived usability, however, there is little guidance on interpreting SUS scores. Generally, higher scores mean better perceived usability and lower scores worse perceived usability. Sauro (2011) found in a review of 500 studies that the average SUS score is 68. Based on this finding he suggests that scores above 68 can be be considered above average and scores below 68 below average. The combined SUS

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score for the 10 Most Wanted website is 56, indicating that usability of the website could be improved.

Finstad's (2010) Usability Metric for User Experience (UMUX) is an extension to the SUS based on the ISO 9241-11 definition of usability and focusing in particular on user experience aspects. It has four standardised items and in the original version seven response options per question (extended Likert scale). The instrument used here is a modified version with five response items per question for better consistency with the SUS, which was administered in the same segment.

The UMUX is scored in a similar way to the SUS and is designed to provide comparable results, i.e. scores range from 0 to 100 and higher is better. No work has been undertaken so far matching Sauro's (2011) effort to obtain an "average" score across a large number of studies. The combined UMUX score for the 10 Most Wanted website is 52, indicating that the perceived user experience of the website is slightly below its perceived usability with room for improvement.

5. Summary and conclusions

In order to evaluate the 10 Most wanted website and provide formative feedback for further development, we developed a questionnaire which was administered to 26 participants, 23 of which were analysed here. The sample composition is similar to the visitor demographics for the evaluated website and the sample size appropriate for this type of study.

Based on demographic information, we have ascertained that respondents were highly tech savvy and media literate, spending much time online, being familiar with a range of social networks and having a good working knowledge of commonly used designs, conventions and interaction patterns on the Web .

Drawing on their immediate experience of several key tasks carried out on the website, participants answered a range of questions relating to ease of use and confidence levels as well as task-specific aspects. In addition, participants had an opportunity to provide open comments for aspects not covered in task-specific questions. Based on participants' answers, a series of recommendations have been formulated (see below).

In order to get a baseline rating for the current implementation of the website regarding its usability and overall user experience, participants were also asked to also complete two validated standard instruments. The website scored 56 on the Standard Usability Scale (Brooke 1996) and 52 on the Usability Metric for User Experience (Finstad, 2010). The scores indicate substantial room for improvement with respect to usability and user experience, and they can provide a baseline for the evaluation of future iterations of the website.

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6. Recommendations

This section presents a consolidated list of recommendations based on the discussion of findings. For details on user feedback underpinning the recommendations see section 4 Findings.

Recommendations:

- 1. Funnel first-time-visitors visitors to the sign up area¹
- 2. Streamline the sign-up procedure²
- 3. Make clearer the option to login via Facebook
- 4. Explain the advantages of profiles to players (credits, attribution)
- 5. Streamline the on-site profile creation
- 6. Offer players a choice between using an on-site profile, social network profile or anonymous profile
- 7. Reduce the information density on the website
- 8. Improve navigation on the site³
- 9. Emphasise sense of achievement in solved cases
- 10. Carry out user research on what kind of information would be helpful
- 11. Present the research tips for more clearly
- 12. Make it more obvious what information about objects is wanted
- 13. Funnel returning visitors to open cases or last case worked on¹
- 14. Provide additional images and information to make objects more interesting
- 15. Provide clear functionality to submit contributions directly on the website without overloading the original purpose of the contact form.
- 16. Clearly advertise and explain the alternatives of submitting content via the website or via Facebook
- 17. Instantly show newly submitted contributions on the object page
- 18. Clearly identify the case officer on the object page
- 19. Explain the role of the case officer and how to contact them⁴
- 20. Redesign the logo and the overall look and feel of the website
- 21. Feature players more prominently on the website⁵
- 22. Clearly express the value proposition for potential players

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¹ e.g. using cookies

² e.g. avoid delays or temporary passwords; de-couple from profile creation

³ e.g. bread crumbs; direct links on all pages to important sections like open cases or submission of contribution

⁴ e.g. provide various options including direct email, telephone, social media handle, postal address

⁵ e.g. username, picture, link to on-site or social network profile

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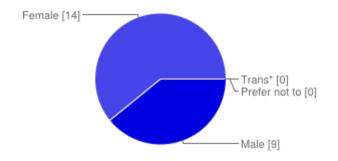
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A. Appendix

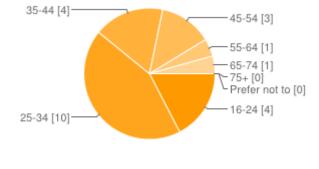
A.1 Demographic information

How would you identify your gender?



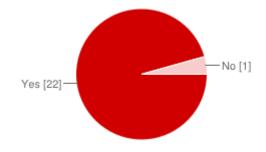
Male	9	39%
Female	14	61%
Trans*	0	0%
Prefer not to disclose	0	0%

How old are you?



16-24	4	17%
25-34	10	43%
35-44	4	17%
45-54	3	13%
55-64	1	4%
65-74	1	4%
75+	0	0%
Prefer not to disclose	0	0%

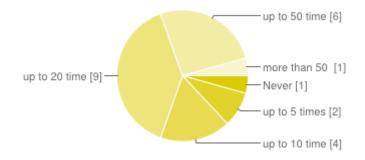
Do you own a mobile phone with a touch screen and Internet access?



Yes **22** 96% No **1** 4%

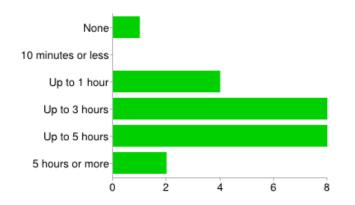
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On an average day, how often do you check or use your mobile phone?



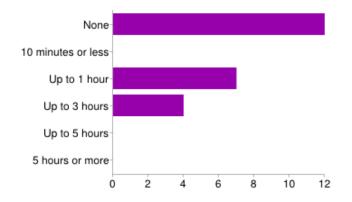
Never	1	4%
up to 5 times	2	9%
up to 10 times	4	17%
up to 20 times	9	39%
up to 50 times	6	26%
more than 50 times	1	4%

On an average day, how much time do you spend online / browsing the Web using a computer



None	1	4%
10 minutes or less	0	0%
Up to 1 hour	4	17%
Up to 3 hours	8	35%
Up to 5 hours	8	35%
5 hours or more	2	9%

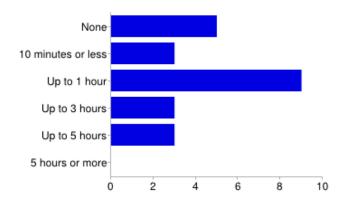
On an average day, how much time do you spend online / browsing the Web using a Tablet



None	12	52%
10 minutes or less	0	0%
Up to 1 hour	7	30%
Up to 3 hours	4	17%
Up to 5 hours	0	0%
5 hours or more	0	0%

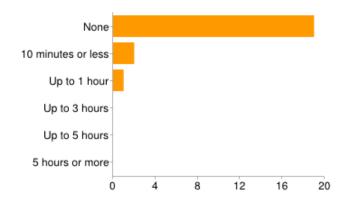
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On an average day, how much time do you spend online / browsing the Web using a mobile phone



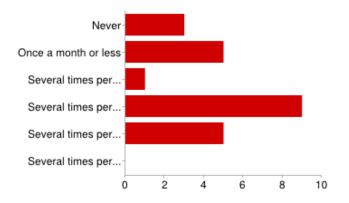
None	5	22%
10 minutes or less	3	13%
Up to 1 hour	9	39%
Up to 3 hours	3	13%
Up to 5 hours	3	13%
5 hours or more	0	0%

On an average day, how much time do you spend online / browsing the Web using any other device



None	19	86%
10 minutes or less	2	9%
Up to 1 hour	1	5%
Up to 3 hours	0	0%
Up to 5 hours	0	0%
5 hours or more	0	0%

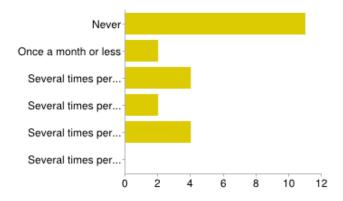
How often do you use Facebook?



Never	3	13%
Once a month or less	5	22%
Several times per month	1	4%
Several times per week	9	39%
Several times per day	5	22%
Several times per hour	0	0%

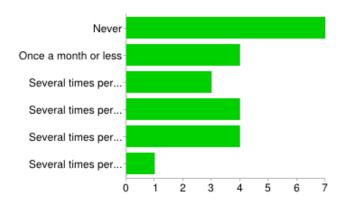
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How often do you use Google+?



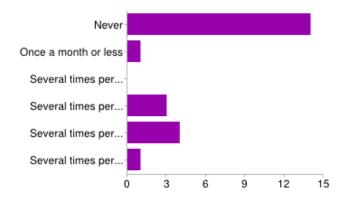
Never	11	48%
Once a month or less	2	9%
Several times per month	4	17%
Several times per week	2	9%
Several times per day	4	17%
Several times per hour	0	0%

How often do you use Twitter?



Never 7 30%
Once a month or less 4 17%
Several times per month 3 13%
Several times per week 4 17%
Several times per day 4 17%
Several times per hour 1 4%

How often do you use WhatsApp?



Never 14 61%

Once a month or less 1 4%

Several times per month 0 0%

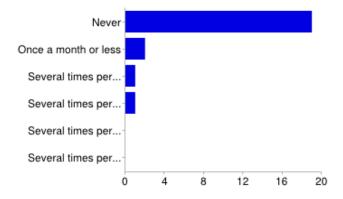
Several times per week 3 13%

Several times per day 4 17%

Several times per hour 1 4%

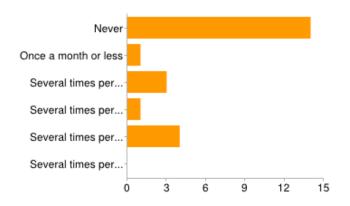
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How often do you use SnapChat?



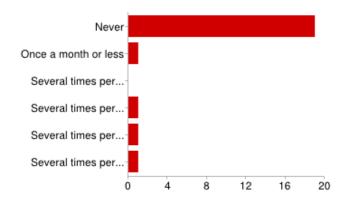
Never	19	83%
Once a month or less	2	9%
Several times per month	1	4%
Several times per week	1	4%
Several times per day	0	0%
Several times per hour	0	0%

How often do you use Instagram?



Never	14	61%
Once a month or less	1	4%
Several times per month	3	13%
Several times per week	1	4%
Several times per day	4	17%
Several times per hour	0	0%

How often do you use other social networks?

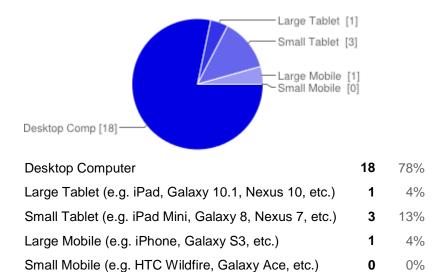


Never	19	83%
Once a month or less	1	4%
Several times per month	0	0%
Several times per week	1	4%
Several times per day	1	4%
Several times per hour	1	4%

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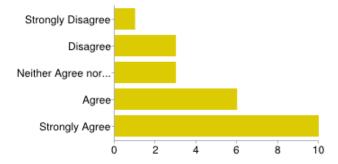
A.2 Tasks on the website

Equipment I used to complete the tasks



Create an account on the 10 Most Wanted website

I found this task very easy

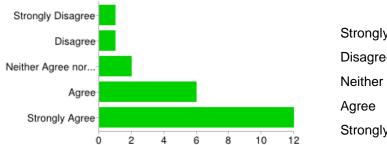


Strongly Disagree	1	4%
Disagree	3	13%
Neither Agree nor Disagree	3	13%
Agree	6	26%
Strongly Agree	10	43%

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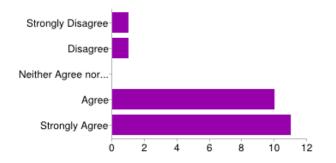
Create an account on the 10 Most Wanted website (continued)

I am very confident that I completed this task successfully



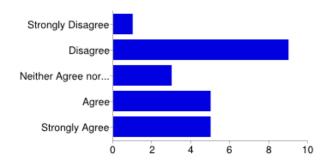
Strongly Disagree	1	5%
Disagree	1	5%
Neither Agree nor Disagree	2	9%
Agree	6	27%
Strongly Agree	12	55%

I understand the basic terms and conditions of the website



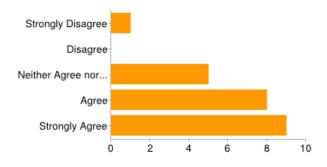
Strongly Disagree	1	4%
Disagree	1	4%
Neither Agree nor Disagree	0	0%
Agree	10	43%
Strongly Agree	11	48%

I understand how information I contribute to the project can be used and reproduced



Strongly Disagree	1	4%
Disagree	9	39%
Neither Agree nor Disagree	3	13%
Agree	5	22%
Strongly Agree	5	22%

I am happy with the terms and conditions

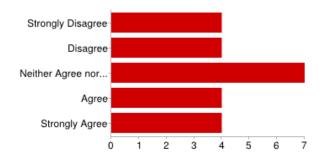


Strongly Disagree	1	4%
Disagree	0	0%
Neither Agree nor Disagree	5	22%
Agree	8	35%
Strongly Agree	9	39%

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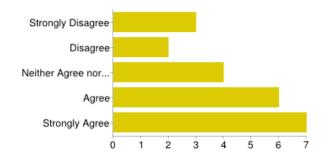
Create a user profile on the 10 Most Wanted website

I found this task very easy



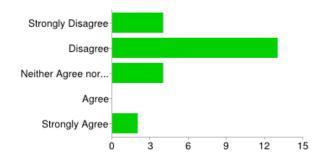
Strongly Disagree	4	17%
Disagree	4	17%
Neither Agree nor Disagree	7	30%
Agree	4	17%
Strongly Agree	4	17%

I am confident that I completed this task successfully



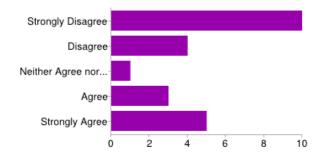
Strongly Disagree	3	14%
Disagree	2	9%
Neither Agree nor Disagree	4	18%
Agree	6	27%
Strongly Agree	7	32%

I like the idea of having a user profile on 10most.org.uk



Strongly Disagree	4	17%
Disagree	13	57%
Neither Agree nor Disagree	4	17%
Agree	0	0%
Strongly Agree	2	9%

I'd prefer using my Facebook or Twitter profile

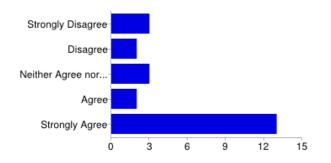


Strongly Disagree	10	43%
Disagree	4	17%
Neither Agree nor Disagree	1	4%
Agree	3	13%
Strongly Agree	5	22%

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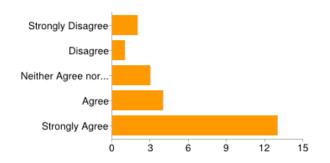
Look at previous cases that are now closed

I found this task very easy



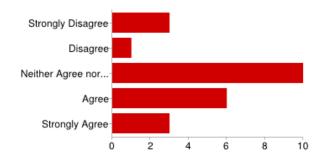
Strongly Disagree	3	13%
Disagree	2	9%
Neither Agree nor Disagree	3	13%
Agree	2	9%
Strongly Agree	13	57%

I am confident that I completed this task successfully



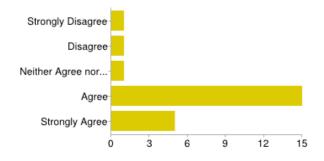
Strongly Disagree	2	9%
Disagree	1	4%
Neither Agree nor Disagree	3	13%
Agree	4	17%
Strongly Agree	13	57%

I found it motivating to look at solved cases



Strongly Disagree	3	13%
Disagree	1	4%
Neither Agree nor Disagree	10	43%
Agree	6	26%
Strongly Agree	3	13%

Looking at solved cases helped me to understand what kind of information is useful

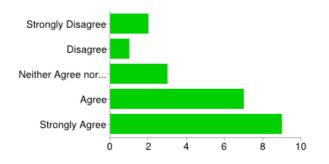


Strongly Disagree	1	4%
Disagree	1	4%
Neither Agree nor Disagree	1	4%
Agree	15	65%
Strongly Agree	5	22%

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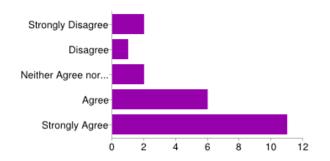
Read the research tips provided for detectives

I found this task very easy



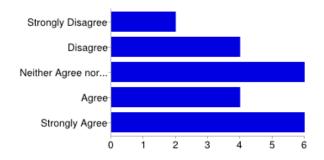
Strongly Disagree	2	9%
Disagree	1	5%
Neither Agree nor Disagree	3	14%
Agree	7	32%
Strongly Agree	9	41%

I am confident that I completed this task successfully



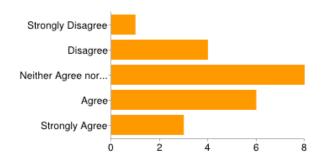
Strongly Disagree	2	9%
Disagree	1	5%
Neither Agree nor Disagree	2	9%
Agree	6	27%
Strongly Agree	11	50%

I found the research tips clearly written



Strongly Disagree	2	9%
Disagree	4	18%
Neither Agree nor Disagree	6	27%
Agree	4	18%
Strongly Agree	6	27%

I found the research tips helpful

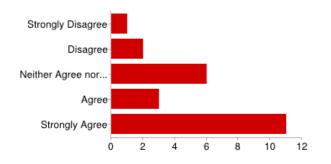


Strongly Disagree	1	5%
Disagree	4	18%
Neither Agree nor Disagree	8	36%
Agree	6	27%
Strongly Agree	3	14%

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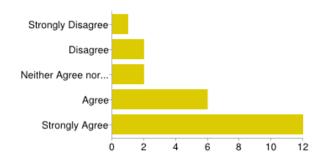
Pick an object and find out what information is wanted

I found this task very easy



Strongly Disagree	1	4%
Disagree	2	9%
Neither Agree nor Disagree	6	26%
Agree	3	13%
Strongly Agree	11	48%

I am confident that I completed this task successfully



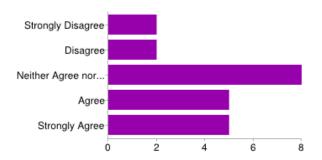
Strongly Disagree14%Disagree29%Neither Agree nor Disagree29%Agree626%Strongly Agree1252%

It is clear what information I should look for



Strongly Disagree 1 4%
Disagree 6 26%
Neither Agree nor Disagree 3 13%
Agree 5 22%
Strongly Agree 8 35%

I found the objects interesting

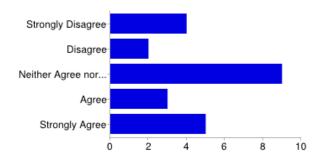


Strongly Disagree29%Disagree29%Neither Agree nor Disagree836%Agree523%Strongly Agree523%

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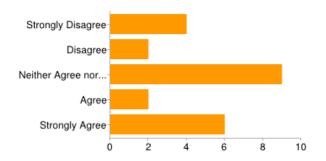
Add information for this object on Facebook, Twitter or Google+

I found this task very easy



Strongly Disagree	4	17%
Disagree	2	9%
Neither Agree nor Disagree	9	39%
Agree	3	13%
Strongly Agree	5	22%

I am confident that I completed this task successfully

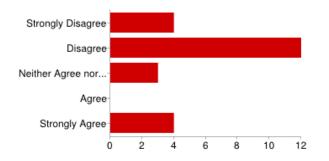


Strongly Disagree	4	17%
Disagree	2	9%
Neither Agree nor Disagree	9	39%
Agree	2	9%
Strongly Agree	6	26%

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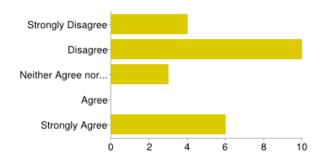
Add information for this object via the contact form

I found this task very easy



Strongly Disagree	4	17%
Disagree	12	52%
Neither Agree nor Disagree	3	13%
Agree	0	0%
Strongly Agree	4	17%
Agree	0	0%

I am confident that I completed this task successfully

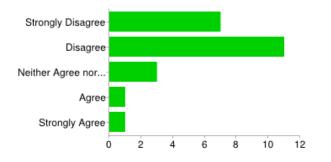


Strongly Disagree	4	17%
Disagree	10	43%
Neither Agree nor Disagree	3	13%
Agree	0	0%
Strongly Agree	6	26%

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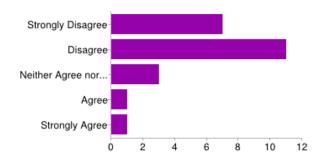
Contact the case officer for this object

I found this task very easy



Strongly Disagree	7	30%
Disagree	11	48%
Neither Agree nor Disagree	3	13%
Agree	1	4%
Strongly Agree	1	4%

I am confident that I completed this task successfully

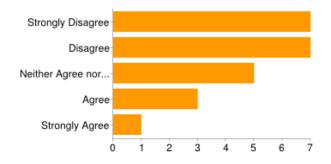


Strongly Disagree	7	30%
Disagree	11	48%
Neither Agree nor Disagree	3	13%
Agree	1	4%
Strongly Agree	1	4%

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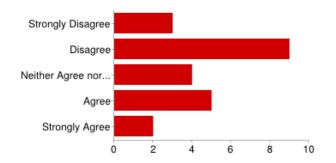
A.3 Standard Usability Scale

I think that I would like to use the 10most website frequently



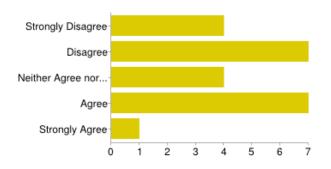
Strongly Disagree	7	30%
Disagree	7	30%
Neither Agree nor Disagree	5	22%
Agree	3	13%
Strongly Agree	1	4%

I found the 10most website unnecessarily complex



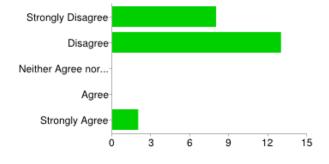
Strongly Disagree	3	13%
Disagree	9	39%
Neither Agree nor Disagree	4	17%
Agree	5	22%
Strongly Agree	2	9%

I thought the 10most website was easy to use



Strongly Disagree	4	17%
Disagree	7	30%
Neither Agree nor Disagree	4	17%
Agree	7	30%
Strongly Agree	1	4%

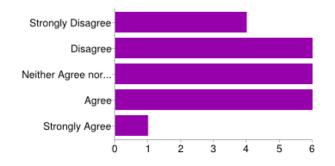
I think that I would need the support of a technical person to be able to use the 10most website



8	35%
13	57%
0	0%
0	0%
2	9%
	0

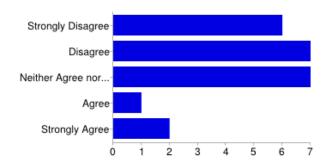
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I found the various functions on the 10most website were well integrated



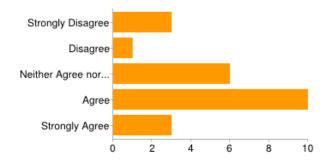
Strongly Disagree	4	17%
Disagree	6	26%
Neither Agree nor Disagree	6	26%
Agree	6	26%
Strongly Agree	1	4%

I thought there was too much inconsistency on the 10most website



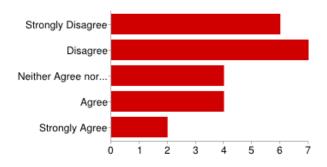
Strongly Disagree	6	26%
Disagree	7	30%
Neither Agree nor Disagree	7	30%
Agree	1	4%
Strongly Agree	2	9%

I would imagine that most people would learn to use the 10most website very quickly



Strongly Disagree	3	13%
Disagree	1	4%
Neither Agree nor Disagree	6	26%
Agree	10	43%
Strongly Agree	3	13%

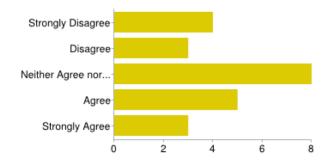
I found the 10most website very cumbersome to use



6	26%
7	30%
4	17%
4	17%
2	9%
	7 4 4

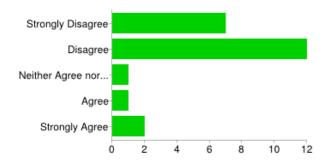
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I felt very confident using the 10most website



Strongly Disagree	4	17%
Disagree	3	13%
Neither Agree nor Disagree	8	35%
Agree	5	22%
Strongly Agree	3	13%

I needed to learn a lot of things before I could get going with the 10most website

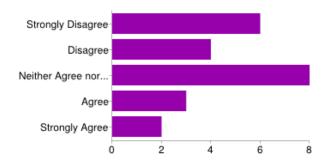


Strongly Disagree	7	30%
Disagree	12	52%
Neither Agree nor Disagree	1	4%
Agree	1	4%
Strongly Agree	2	9%

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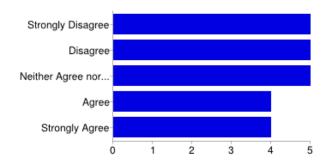
A.4 Usability Metric for User Experience

The 10most website capabilities meet my requirements



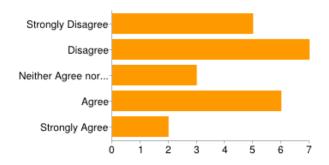
Strongly Disagree	6	26%
Disagree	4	17%
Neither Agree nor Disagree	8	35%
Agree	3	13%
Strongly Agree	2	9%

Using the 10most website is a frustrating experience



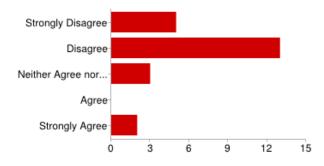
Strongly Disagree	5	22%
Disagree	5	22%
Neither Agree nor Disagree	5	22%
Agree	4	17%
Strongly Agree	4	17%

The 10most website is easy to use



Strongly Disagree	5 22%
Disagree 7	7 30%
Neither Agree nor Disagree 3	3 13%
Agree 6	3 26%
Strongly Agree 2	2 9%

I have to spend too much time correcting things when I use the 10most website



Strongly Disagree	5	22%
Disagree	13	57%
Neither Agree nor Disagree	3	13%
Agree	0	0%
Strongly Agree	2	9%

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A.5 Open Comments

Codes:

Structure and navigation

General design / UX

Account sign-up

Trust

Adding comments

Specific advice

Objects and wanted information

Other (not coded)

Are you sure Oliver Kahn designed the 2008 football? He may have had some input but he was the German goalkeeper, not a product designer!

Maybe rethink the structure and content of the page. Make it more fun to use and user friendly. Perhaps contact a UX designer (i.e. freelance) to make a proposition on how to make it more usable.

Screw you! Is this website a joke?

I wish you had used Survey Monkey for this questionnaire... I lost my answers when I had to close the browser and then tried to log back in.

I don't see why you had to create a user account as well as a register... surely all of this could be done through Facebook if that is the main facility you are using for comment / interaction etc? Perhaps more visually simple prompts would help.

the logo is not very appealing

it is not obvious if this is a real project or not

what are the prizes?

why do I need to enter coordinates during setup? entering the captcha codes is frustrating

Difficult to understand the website and the tasks questions are confusing. Ex:. Question number 9 And question 10.

The sign up process was unusual in that I'd not used that process before (choosing username, then choosing password through an email - could be made clearer this is the process)

- no top menu for 'open cases' as such you have to click on icon if you are on any other page to get to where the cases are
- I couldn't find the contact form to use on an object if I didn't want to link my social media accounts
- it wasn't clear to me who was the case officer for the object, and how to contact them

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- 1. The website could do with a little introductory piece even a 1 minute video introduction about what it is for. Once I was clear (only through using it) did I start to understand what the links were for.
- 2. Reliance on Facebook is a downside. My daughter a Facebook Native couldn't understand why whereas I'd been asked to comment on say a cold case, I wasn't able to add my comments on Facebook (because I need to be a friend which wasn't)
- **3.** The layout and design of the site (sorry for this...) is a bit old-hat especially for an organization concerned with design...but that's just a matter of opinion!
- 4. All a bit texty!
- 5. Signing up was nice and easy so good news on that.

Hi there,

Susan Lambert asked me to have a look at the site and complete the questionnaire, which I have done above. However, there were a few things I found myself wanting to comment on, which I couldn't using the survey checkboxes. Please see below in case these comments are of use:

1. First impressions

I'm afraid I don't love the core concept of the site - there's a 'Most Wanted' concept in there, which implies a detective-style investigation, but this doesn't really feed through into the presentation and isn't carried on throughout the site.

When I arrived at the site, my first impression was that there's a lot going on, and I didn't feel that the page was funneling me directly at a specific action or area of functionality.

The presentation of the objects implies that the objects are the place to start, but on closer inspection of the site, I think what you really want is for people to sign up as contributors first, and then to start filling in the blanks on the objects second. A big top-line graphic (I would lose the logo and header text) inviting me to sign up and begin investigating is more likely to lead people to click through, particularly if its a tablet user, for whom we risk wasting the top third of the screen real-estate.

With this in mind, if I were re-doing the site, I would get rid of 90% of the homepage content and focus on the calls-to-action to become an investigator and to start investigating objects. You might have a look at the Operation War Diary homepage from Zooniverse for some ideas on this, since they keep it really simple - https://www.zooniverse.org/project/diaries.

2. Onboarding

Again, in a spirit of constructive comment! I thought there was a lot going on here and I did think the onboarding experience could be simplified right down. Experience suggests that the simpler you can keep the form (Name, Username, Password, Submit) the more people will make it through the process.

I didn't very much like the temporary password/confirmation email part of the process. You don't need to assign a temporary password and again you might lose people when they have to login and then the first call-to-action is to change a password.

I also found the 'profile completion' step slightly odd. Unless its there for a specific purpose, the lat/long information is very unusual and feels a little invasive. A social login using Facebook or twitter, given that they're such a big part of the site experience, would really help.

3. Investigating

I like the core activity, but I think perhaps you might need to lead the user through it more explicitly. Even having read the object pages several times, I wasn't 100% clear on how to actually contribute a piece of knowledge. I also thought that the layout of the object information sometimes obscured exactly which bit of knowledge you were looking for help with.

4. Personalities

Something other crowdsourcing sites do a lot of is surfacing the people involved in the process. I know you have a user location map, but if you're offering game-style rewards (points and prizes),

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why no profile your top contributors? Evidence suggests people respond more to crowdsourcing activities that are associated with a person or personality, but at the moment, there's no 'human' face to the overall experience other than the Facebook avatars.

I think it's potentially a really exciting concept, but there are a few things that have overcomplicated the implementation, which would hold me back from social sharing - I need to feel that I'm getting value through association when I share and also that the people I share with are likely to get value themselves. It's not 100% clear what value I would be sharing at the moment - it it a game, a humanitarian effort, a cause, a mystery, a campaign? People will get behind things when they're simple and when they can get what they need to do.

I hope this is useful, and I really look forward to seeing how the site develops! Nick Poole

Collections Trust

Hi,

i liked that the login integrated with twitter, facebook etc
I think the layout of the pages could be improved. I'd move the disclaimer bit to the very bottom of the page and instead of saying there are more images on the modip site, why not show the extra images as thumbnails under the main image.

Also the http://10most.org.uk/10most.xml RSS feed doesnt work.

It took over three hours for a link to set my password to arrive.

Generally, the websites design and content were not convincing. Especially to new users that do not know what the website is all about. There were too many irrelevant and ambiguous information displayed that created uncertainty of what the website's purpose is. Also, the overall visuals make the website seem as if it's a scamming site, thus wouldn't gain users trust to create an account or do anything else, and the logo also doesn't represent anything about plastic designs (more like a most wanted countdown site?)

In terms of ease of use, it is difficult to navigate around the website, knowing the current page, and important information are not noticeable enough.

this seems a great idea but I felt frustrated that I did not know any of the information that was 'wanted' and as these were objects beyond my own interests, I did not feel motivated to research them. It was also somewhat cumbersome having to register and then trawl through all the comments once more information had been added.

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