SSI – SURegen review

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Contents

1   Introduction

This report describes a usability evaluation of the SURegen urban regeneration toolkit carried out at the request of Steve Curwell of Salford University, principal investigator of the SURegen project[1]. SURegen is funded by EPSRC and is one of a series of SUE2 (Sustainable Urban Environment) projects[2].

SURegen is a toolkit for urban regeneration developed to support regeneration teams in collaborative decision making. It is also designed to help those new to regeneration acquire and develop skills by providing information on best practice illustrated by case studies. SURegen's target users include politicians, regeneration staff in Local Authorities, planners, architects, urban regeneration companies, regeneration consultants, and engineers.

This evaluation was undertaken in the weeks 11/06/12 and 18/06/12. Please contact the reviewer at m.jackson@software.ac.uk if you have any queries.

1.1   Evaluation scope

The evaluation looked at the following SURegen resources

- Project web site, http://www.suregen.co.uk/.
- Workbench web site, http://www.suregen.co.uk/wbhome/.
- Workbench, http://www.suregen.co.uk/surdsm4t/. Steve commented that there are "a number of versions of the SURegen workbench which have been tried out by various end user collaborators" and that this version is "the best version in terms of content".
- "SURegen workbench user guide v0.2 (October 2010)", http://www.suregen.co.uk/surdsm4t/documents/user_guide.pdf.
- e-Library, http://www.suregen.co.uk/elibrary/.
- "Learning Support Module user guide", http://www.suregen.co.uk/elibrary/uploaded/user_guide.doc.
- Wiki, http://www.suregen.co.uk/smwiki.
- Forum, http://www.suregen.co.uk/sur-forum/.

1.2   Evaluation style

The evaluation was done without reference to the user guides since it has been observed that users avoid reading user guides unless absolutely necessary. For example, see

Carroll, J.M. and Rosson, M.B (1987*). The paradox of the active user*, Interfacing Thought: Cognitive Aspects of Human-Computer Interaction. J.M. Carroll (Ed.). Cambridge, MA, MIT Press. DOI: 10.1.1.35.1606.

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[1] http://gow.epsrc.ac.uk/NGBOViewGrant.aspx?GrantRef=EP/F007213/1

[2] http://www.epsrc.ac.uk/ourportfolio/themes/engineering/activities/sue/Pages/SUE.aspx

The evaluation involved comprehensive exploration of the web sites and portals, clicking links and trying features. Forms were submitted with both correct and (potentially) incorrect values.

Where relevant, heuristic evaluation principles were considered. Heuristic evaluation principles are derived from principles of user interface design. They can act as a checklist when using the software as to how usable it is and how its usability can be improved. See

Nielsen, J., and Molich, R. (1990) *Heuristic evaluation of user interfaces*, Proc. ACM CHI'90 Conf. Seattle, WA, 1-5 April 1990, pp249-256. DOI: 10.1145/97243.97281

and also

- Wikipedia, http://en.wikipedia.org/wiki/Heuristic_evaluation
- Jakob Nielsen's heuristic evaluation page, http://www.useit.com/papers/heuristic/

The principles are

- **Visibility of system status.** Does it give users appropriate feedback within reasonable time?
- **Match between system and the real world.** Does it speak the user's language and make information appear in a natural and logical order? Are implementation-specific details hidden from the user?
- **User control and freedom.** Does it provide clearly marked exits, undo and redo?
- **Consistency and standards.** Is it consistent within the software, with other similar packages and with platform conventions?
- **Error prevention.** Does it prevent errors in the first place or help users avoid making them?
- **Recognition rather than recall.** Does it make objects, actions and options visible and reduce the amount of information a user has to remember?
- **Flexibility and efficiency of use.** Does it offer short-cuts and support macros for frequently-done action sequences?
- **Aesthetic and minimalist design.** Does it avoid showing irrelevant or rarely-needed information?
- **Help users recognize, diagnose, and recover from errors.** Does it make errors clear, comprehensible, precise and suggest solutions if possible?
- **Help and documentation.** Does it provide concise, accurate, clear, easily-searchable task-oriented doc centred around concrete lists of steps?

1.3   Evaluation platform

The evaluation was done on a DELL Latitude e6510 with 4GB memory, 64 bit OS, 64GB disk, running Windows 7 Enterprise (Version 6.1 Build 7600). The browser used was Internet Explorer 9.0.8112.

1.4   Report format

Every single issue, no matter how small, that was encountered is documented. This explains the length of the report! But, the number of issues should not be taken as an indicator of severe problems. Most of the issues encountered are very small. See the next section for a summary of the key points.

Section headings are task-oriented so they can serve as a check-list of issues to be addressed. Issues are grouped according to the heuristics above, though the assignment of issues to categories is, to a degree, given the style of evaluation, subjective.

Due to inconsistent naming of components (see section 3.4.1), I use the terms

- "Project page" for http://www.suregen.co.uk/.
- "Workbench" for http://www.suregen.co.uk/wbhome/.
- "DSM" (decision support module) for http://www.suregen.co.uk/surdsm4t/.
- "LSM" (learning support module) for http://www.suregen.co.uk/elibrary/.

Some links to the DSM point to an earlier version at http://www.suregen.co.uk/surdsm/. During the evaluation, these were noted but this version was not used.

2   Key points

After I started, I discovered, from reading papers and from an e-mail from Steve, that earlier versions of SURegen had already been the focus of testing with various user groups. This testing took the form of users walking through typical tasks and then commenting on the ease with which they could do these, the nature and quality of information provided, and the most and least usable parts of SURegen. It is perhaps unsurprising then that there were **no major challenges** in using any of the SURegen components.

From the user guide and the tools themselves, it is assumed that all classes of user know about urban regeneration but have no specific computing knowledge beyond being able to use a browser, edit and manipulate text files etc. There was **nothing that suggested such users would have any serious problems**, bar requiring guidance for specific DSM sub-categories. The three-column format – navigation, content, guidance and other information – seems a **simple yet effective way to present and navigate around information** both in the DSM and LSM. I was **able to use the resources without any reference to the user guides**, and the user guides did not have any information I had not already worked out just by using SURegen directly.

In my view, the most important usability issues to address are:

- Using a simpler, more consistent set of fonts. Section 3.2.10.
- Helping to prevent users from making errors or to detect them when providing information. Section 3.2.11, 3.4.9, 3.5.3, 3.5.5, 3.6 and 3.10.4.
- Providing a "Cancel" button or link for all forms. Section 3.3.1.
- Avoiding the need for users to edit HTML. Section 3.2.20 and 3.4.10.
- Consistent naming of SURegen components. Section 3.4.1.

- Closer integration of SURegen components to give the impression of a single toolkit. Section 3.4.11 and 5.7.

In addition to,

- Preserving provenance. Section 6.

I recognise that some of the problems may be due to issues with the content management systems used to build the DSM and LSM. Content management systems, in my view, don't support quite as clean a presentation of content as they should (or could).

2.1   Use a system usability scale to quickly assess usability

The System Usability Scale defines a "quick and dirty" way of measuring usability quantitatively. It askes 10 questions and yields a score out of 100.

Brooke, J. (1996). *SUS: a "quick and dirty" usability scale*. In P. W. Jordan, B. Thomas, B. A. Weerdmeester, & A. L. McClelland. Usability Evaluation in Industry. London: Taylor and Francis.[3]

Despite its simplicity, it has been shown to be a highly reliable and robust way of assessing usability. For example, see

A. Bangora, P.T. Kortumb and J.T. Miller *An Empirical Evaluation of the System Usability Scale* International Journal of Human-Computer Interaction 24(6) pp574-594 2008 DOI:10.1080/10447310802205776.

One suggestion is, if possible, to distribute this to the users, or a subset of these, that were consulted throughout development. After adopting the recommendations below that there is time to address, ask these users to try the toolkit again. Then, distribute the SUS again and see if there has been any improvement.

3   Detailed recommendations

3.1   Visibility of system status

3.1.1   Don't display "Oops" in search results

When running a search in the LSM, the results page has the title "Oops, look what I have found:". "Oops" implies that the user has made an error, or the system has run into an error, which is not the case.

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[3] A copy of this paper can be downloaded at http://www.usabilitynet.org/trump/documents/Suschapt.doc or http://www.itu.dk/courses/U/E2005/litteratur/sus.pdf.   See   also http://en.wikipedia.org/wiki/System_usability_scale.

3.1.2 Don't show the tag cloud when showing search results

LSM search results include the tag cloud

"public expenditure   2D model   3D modeling   baseline   Climate change   community-based approach   disadvantaged neighbourhoods   government intervention   guildance   Local Development   Master Plan   neighbourhood regeneration   New Deal for Communities   planning Planning Policy Statement   public expenditure   Quality of life   regeneration REGENERATION POLICY   regional development   Regional Spatial Strategies   renewal Salford   Scotland   SURDSM file pool   SURegen   Sustainability Appraisal   Sustainable Economic Growth   Sustainable regeneration   Sustainable urban regeneration   United Nations"

This could be interpreted as all the pages that match the user's search term, which is not the case.

3.1.3 Remove test and spam content and comments

Some of the LSM and DSM data and comments are just tests. In addition, there is spam in the wiki e.g. http://www.suregen.co.uk/smwiki/index.php?title=BlancaHaralson88. These should be purged before SURegen goes live.

3.1.4 Disable anonymous comments

At present, anyone can add a comment anonymously e.g. I could add one with an e-mail "a@b.c". This means SURegen is open to spammers adding misleading or pointless information. This could impact upon usability by making it more difficult to distinguish valid from invalid comments. Only allowing comments from authorised users would prevent this.

3.1.5 Speed up the appearance of the LSM help window

Clicking the "Help" button in the LSM causes a pop-up window, "About the Learning Support Module", to fade in very, very slowly. Likewise, when the "X" icon is clicked to remove it, it disappears very, very slowly. It would be preferable if it just appeared and disappeared immediately.

3.2 Match between system and the real world

3.2.1 Replace "sending" with "updating"

For certain operations e.g. selecting ADD TO MY FAVOURITES in the LSM, or deleting a comment the phrase "Sending…" appears. This exposes the implementation details to the user, who should not have to worry about such details ("sending to who?" might be a thought that comes to mind).

Changing the cursor to an hour-glass for such operations would be a useful enhancement.

3.2.2 Remove numbers from tool tips

When moving the mouse over the regeneration check list in the DSM, the tool tips include numbers e.g. "The Local Authority Context 142" and "Identification of the need for change 94". These seem to be implementation details.

3.2.3 Remove "general using|functionality|interface|usability" comment categories

In the LSM's Comment form, the user can select a "Related to:" value from one of "general using|functionality|interface|usability". It may be unclear what the distinction is. To me, "general using", "interface" and "usability" all overlap, as does "general using" and "interface". It's better for the users to just describe their comment, problem, or suggestion and for the developers' to decide on which category their comment falls under.

3.2.4 Rename LSM menu options

"RETURN TO MAIN MENU" in the LSM takes the user to a page titled "Welcome to the membership area" with MEMBERSHIP MENU and ADMIN MENU. In MEMBERSHIP MENU, "Manage Website Content" takes the user back to the Home page with the main menu. Again, this seems too implementation-specific. It would be more intuitive if:

- "RETURN TO MAIN MENU" was called "Manage Profile" or something similar.
- "MEMBERSHIP MENU" and "Manage Website Content" were replaced with a "Home" button in the top panel (see also section 3.4.7).
- "ADMIN MENU" was called "Profile Menu".

3.2.5 Remove variable names from form-specific error messages

When editing a category or sub-category in the LSM, implementation details seep through e.g. if the user provides no sub-category name they get a message

"There was 1 error in the form.
 Please review the following fields:
 - menu_name needs a value."

The user should be given a dialog like "You should provide a sub-category name" and/or the missing fields highlighted with red borders. In addition, it should be clear which fields are mandatory or optional (section 3.5.5).

3.2.6 Avoid contracted words and unfamiliar abbreviations

In LSM's Configure Resources, rename "Create new res portal" button to "Create new resource" since they are not creating a portal and there is no need for "res" to be contracted.

In the DSM's front page image, rename "Regen programme" to "Regeneration programme".

In the DSM, rename the "RTE tool" button to "HTML editor" as it may be unclear to the user what "RTE" is . I didn't know until I pressed it.

3.2.7 Use "!" sparingly!

The LSM search results shows "FOUND 2 ITMES! BACK TO ADVANCED SEARCH!". There is no need for "!" in either case. Typically "!" is used only for out-of-the-ordinary or other unexpected or rare occurrences.

3.2.8 Beware control characters

There are some control characters and other odd characters in certain pages. For example:

- LSM WORKBENCH MODULES-Learning Support Module: "â€˜workspaces for knowledge management and information retrievalâ€™", "â€˜knowledge repositoryâ€™", "â€˜live topicâ€™", "â€˜knowledge repositoryâ" , "â€˜databaseâ€™", "guidanceâ€™s".
- LSM and DSM footers: "Copyright @ 2009-2012".
- DSM Diagnosis-Understanding the AREA-Urban Morphology-Resource consumption and options: "BEDZED %u2013 insert link", "%u2022 Energy use and supply", "%u2022 Water use and supply", "%u2022 Construction Materials".
- DSM Diagnosis-Needs & Issues Analysis-Sustainability Assessment: "%u2018fairly safe%u2019 or %u2018very safe%u2019", "%u2013 walking, rural %u2013".

This could be caused by cutting and pasting the original content between Linux and Windows files.

3.2.9 Use your product names

In the DSM home page's Guidance, there are references to "the system". As your product has a name, it's preferable to use this name e.g. "Activities that can be performed with the DSM", "How to use the DSM" etc. This helps the user learn the names of the main components making up SURegen.

3.2.10 Don't go overboard with fonts

There is a wide variety of font sizes, colours, underlined and non-underlined texts used. For example, on the LSM front page, there is a green heading, "Welcome to SURegen e-Library", an orange sub-heading "WELCOME TO SUREGEN WORKBENCH DEVELOPMENT AREA" on a light blue background, an underlined blue "comment" link on the light blue background and deep blue and red links, also on the light blue background. In the LSM search results, the result summary text "I HAVE FOUND NOTHING, PLEASE TRY AGAIN. BACK TO ADVANCED SEARCH!" is in green, with "ADVANCED SEARCH" link in black. Similarly, the DSM includes green text on grey, black text on blue, blue text on grey, white text on red, black in a purple box in a blue box and white text on blue. These could cause users problems:

- Too many colours can be overwhelming. Some colour combinations e.g. green text on white "Maximum file size per upload…" text when editing a case study, can be difficult to read.
- Users associate colours with meaning and inconsistencies can cause issues e.g. using blue for links in some parts of the portal but using black in others.
- In the LSM tag cloud, some links are in red. These links are broken or have 0 matching entries. In the DSM, when editing a stage, "Add sub-stage" is a blue underlined hyperlink but "Delete this stage" is a red non-underlined hyperlink. It used to be the case that blue was used for unvisited links and red, or purple, for a visited link and some users still assume this.
- In the LSM form for editing a case study the expected format for certain fields (e.g. yyyy-mm-dd) is in red. This is inconsistent as red is usually used in forms to highlight missing information after an attempt has been made to submit it.
- Many headings, and other text in the LSM and DSM are all in upper-case, which can be more difficult to read.

Decide upon what fonts and colours you will use, and use these consistently across the LSM, DSM and workbench. For example:

- General text e.g. black. Headings should just be bold or larger versions of these fonts.
- Headings e.g. same colour as general text or links but bold or larger fonts than general text. Title background bars, as already used in the LSM and DSM, can help to discriminate headings from the text.
- Links e.g. deep blue. These should stand out from the general text and headings to make it clear the user can click on these.
- For required entries in forms, add "* required" in black next to the name of the field or, if most fields are required fields then, instead, add "(optional)" in grey, next to the optional ones.

3.2.11 If there is no information make it clear why

In the DSM there are certain pages or fields where information is missing. For example, some stages e.g. Strategy Formulation-Policy Study, have no categories. On these pages there is a message in the CATEGORY INFORMATION "Note: There is no categories assigned to this stage!" However, a "Normal" user cannot add categories, though may assume they should or need to as the message is like a warning ("!"). It might be better to have a message like "This stage has no specific categories and there is no need to add these".

In The Local Authority Context's Guidance page the section "How to communicate this decision, solution or action" has no content, and it's unclear whether this is information to be provided at a later date, or whether this section is not applicable to the current stage.

So, for every stage, category and section make clear:

- For Guidance information, whether this information is missing but is to be added by a knowledgeable user, or whether there is no information available or whether it's not applicable to the current stage.
- For Programme information, whether it is not applicable or not a concern for the user or must be added by the user.

3.2.12 Show summary information before detailed information

In the LSM search results, the list of matches is shown then the count e.g. "FOUND 2 ITMES! BACK TO ADVANCED SEARCH!" I think it's preferable if the summary is shown first.

In the DSM, every centre page shows stage-specific summary then programme-wide information

PROGRAMME BASIC INFORMATION
PROGRAMME MANAGEMENT LOG
PROGRAMME DESCRIPTION

then page-specific information

STAGE INFORMATION
CATEGORY INFORMATION

It is odd to go from stage-specific out to programme-wide then back to page-specific. I'd prefer the programme-specific, then stage-specific, then page-specific.

3.2.13 Show table headings

In the LSM, when the user selects a category from the left of the screen (e.g. CASE STUDIES-Strategic Planning), the table of case studies in the middle shows the entries but there are no headings explaining what the fields mean. Therefore the user has to click on an entry to find this out. Showing the headings would be more informative, especially as some entries may be empty.

In LSM's Configure Resources, the Current resources: has no text beneath it. It's preferable to show table headings, even if empty so the user has an indication of what they can expect to see here, or, when there are entries, what each column means. Similar comments apply to the LSM's Configure Rss Feeds page.

3.2.14 Show programme name at top of "Regeneration activities…" panel

Change the DSM's centre panel title from "Regeneration activities & and outcomes" to "Regeneration activities & and outcomes – PROGRAMME TITLE" when the user selects a programme so it's always clear if they have selected a programme or not, and what programme they have selected.

3.2.15 Layout the interface so it is clear what is related to what

It can be clearer to a user if buttons or links that invoke related operations are grouped together. This can be done by the use of boxes, panels, shading or spacing. For example, in the LSM's Configure Resources form, the "Create new res portal" button is in a shaded table row and dwarfs the small "Cancel" link beneath it, which is cramped next to the "Current resources:" heading. As the "Create" and "Cancel" commands are complementary they should be presented the same way (both buttons or both links) and adjacent. Likewise, in the LSM category editing pages, the "Update category" button

and "Delete this category" links are adjacent but the "Cancel" button is on its own line. They should be grouped together and either all links or all buttons (see section 3.4.2).

Similarly, each page in the LSM has "EDIT", "ADD TO MY FAVOURITES", "DELETE" links together. "ADD TO MY FAVOURITES" should be separate since it is not concerned with manipulating the page in any way.

For the expected formats of field entries, add the format in black in brackets "(…)" alongside or under the field name (rather than the field itself) e.g.

Start time
(yyyy-mm-dd)
| |

or

Start time (yyyy-mm-dd)
| |

or

Start time (yyyy-mm-dd) | |

When viewing a specific case study in the LSM e.g. CASE STUDIES-Strategic Planning-A Test, there is an "Edit" button at the top of the page. This does not edit the case study but the Strategic Planning sub-category text. The "Edit" button for the actual content is further down the page. This is confusing.

In the DSM, every centre page shows stage-specific summary then programme-wide information

PROGRAMME BASIC INFORMATION
PROGRAMME MANAGEMENT LOG
PROGRAMME DESCRIPTION

then page-specific information

STAGE INFORMATION
CATEGORY INFORMATION

There should be clearer delimiters between the three levels of information. See also section 3.2.12.

Some operations, e.g. LSM "I want to comment on this site." apply to the LSM as a whole and so would be more appropriate inside the top panel above the "Home" and "Login" tabs.

3.2.16 Don't spawn new windows

In the LSM, clicking on a search result spawns a new browser tab or window with that page. As scripting is used, there might be a risk that the LSM gets into a strange state and/or the user gets lost as "back" does not behave as expected (see section 3.2.19)

In an article on "Top 10 Mistakes in Web Design" (http://www.useit.com/alertbox/9605.html) Jakob Neilsen highlights that not only does spawning a new window disable the use of the back button, it is a "user-hostile message implied in taking over the user's machine" and that "When they want the destination to appear in a new page, they can use their browser's "open in new window" command — assuming, of course, that the link is not a piece of code that interferes with the browser's standard behavior."

3.2.17 Disable the resizing image

In the LSM, if the user moves the mouse over the dashboard image, it springs to a larger size. This feels odd. It might be better if the user could just click on it to view it at its actual size. Or just centre it in the page and have it at its actual size.

3.2.18 Support accurate navigation

If the user types a search value e.g. "Salford", into the top-right Search box in the front page of the LSM, then clicks "Search", the results are displayed. At the bottom of the page is the message and link "BACK TO ADVANCED SEARCH" However the user has not come from that page.

3.2.19 Support the browser "Back" button

In the LSM, a user can click on GOOD PRACTICE-RENEW Northwest. In the page that appears they can click on the "RENEW Northwest" button which shows a table. The table heading includes a link "RENEW Northwest - Web Publications". If the user clicks on this list they are taken to a new page. However, if they then click "Back" in the browser, they are taken to the LSM home page. There is no "Back" button on the "RENEW Northwest - Web Publications" page either so the user has to navigate back down. Either support the browser's "Back" button or provide an explicit scripted "Back" button otherwise the user can either get lost when trying to return to previous pages.

3.2.20 Avoid the need for users to edit HTML

The DSM fields accept and present HTML content. To avoid having to edit raw HTML the user can click on the field, then press an "RTE tool" button which allows them to edit the HTML as rich text. This is highly non-intuitive – the editor should pop up when the user clicks "Edit" to edit a field rather than them having to explicitly press "RTE tool" – and inconsistent (see section 3.4.10).

Some HTML shows CSS information e.g. <p class="f_disc">. It is unclear where this comes from (it's not the RTE tool) or whether users need to provide similar CSS information.

On a similar note, in the DSM's The Local Authority Context-Community Strategy the user can edit the STAGE INFORMATION and click on an icon to upload a file. This actually inserts an HTML

hyperlink to the file into the STAGE INFORMATION field. But there is no corresponding command to remove this link: the user must edit the raw HTML, which also runs the risk that they might corrupt the HTML there.

In LSM, GOOD PRACTICE-RENEW Northwest's page there are two buttons – "RENEW Northwest" and "RENEW Northwest web publications". Clicking Edit in the page shows embedded HTML and calls to JavaScript to provide these.

Do the users have the ability and knowledge to edit raw HTML or JavaScript. Is this a requirement? Would they even have basic HTML skills for editing content in general? If not, then stronger integration of the HTML editor into field editing is vital.

3.2.21 Make creating and updating resources non-modal

In the LSM's Configure Resource form there is a "Create new res portal" button along with a list of current resources. If the user clicks "Edit" in the list of current resources then the form is populated with that resource, the button changes to "Update Resource portal" and there is an adjacent link to "Go to create new resource". The switching of modes for the form (create mode and edit mode) can be confusing. It would be preferable if the table showed all the fields of the resource (caption, URL, new window, position, note) and then a "Create" button creates a new table row and an Edit button allows them to Edit the row in place. Similar comments apply to the LSM's Configure Rss Feeds page.

3.2.22 Make creating and editing practice notes less confusing

The DSM Strategy Formulation-Initial Sustainability Assessment's Guidance page has "No practice notes available". There is a button to "Create practice notes". This opens an editor with HTML headings. There is an "Add practice notes" button which saves these default headings. There is also a "Clear" button. If the user presses this then clicks "Update practice notes" they get a field with "Practice notes is not valid!". I found this confusing. Also, if the user clears the field, there is no way to invoke "Create the practice notes" again and get the default headings. It would be simpler if there was just an "Edit practice notes" button and this allowed the user to edit the field and provided "Create default headings", "Clear", "Update" and "Cancel" buttons.

3.3   User control and freedom

3.3.1   Provide a "Cancel" button or link for all forms

Some pages can be edited or updated but they support no "Cancel" button or link, if the user wants to either exit the page without making changes or wants to abandon their changes. For example, when editing the DSM's The Local Authority Context-Community Strategy page's AREA MAP field, the user has to press the "Save" button to exit. If they have made changes they want to abandon then they'd have to select another page, or they might press the "Back" button on the browser, which can cause its own problems (see section 3.2.19).

The DSM's Edit regeneration programme form has a related issue in that, unless the user clicks "Update" then the form remains visible no matter what other page is selected, until the user changes programme.

3.4   Consistency and standards

3.4.1   Adopt and use consistent naming for SURegen components

Three of SURegen's components are named in multiple, inconsistent, ways

- http://www.suregen.co.uk/wbhome/
- http://www.suregen.co.uk/surdsm4t/
- http://www.suregen.co.uk/elibrary/

For example

- wbhome/ is referred to as a "Workbench" in "Workbench home" links from both surdsm4t/ and elibrary/.
- surdsm4t/ is referred to as "Projects" in the link from wbhome/'s front page and "Site Tour", "DSM" in a "SURegen DSM" link from elibrary/, and "Decision Support Module" in a sub-page of elibrary/.
- elibrary / is referred to as "Case Study" in the link from wbhome/'s front page and "Site Tour" and "e-Library" in a "SURegen e-Library" link from elibrary/.
- elibrary/'s front page has "Learning Support Module", "Welcome to SURegen e-Library" and "Welcome to SURegen Workbench development area!".
- surdsm4t/'s front page has "SURegen DSM Test Version", "SURegen WORKBENCH DEVELOPMENT AREA" and "Welcome to the SURegen Projects Area".
- elibrary/'s user guide is titled "Learning Support Module user guide".
- surdsm4t/'s user guide is titled "SURegen workbench user guide v0.2".

A lack of consistency in terms may cause confusion to users e.g. some users could assume that the learning support module and e-library are different components.

3.4.2   Be consistent in use of buttons and/or links

In the LSM and DSM both buttons and links are used to invoke operations. There does not seem to be a consistency behind which is chosen, though "Cancel" is always a link. For example, when editing a case study in the LSM, there is a "Submit" button next to a "Cancel" link; when viewing a case study in the LSM, there is an "EDIT" button next to "ADD TO MY FAVOURITES" and "DELETE" links; when editing stages in the DSM the fields have "Edit" links next to them but when editing them a "Save" button is shown.

Jakob Neilsen provides guidelines at http://www.useit.com/alertbox/command-links.html which, in summary, are to

- Use buttons for the most important commands, or those that are part of some "workflow".
- Use links for navigation to other pages or off-site.
- Use links for commands with minor consequences or secondary commands and ensure it's clear, by their names, they carry out actions.

So, for example, in the LSM Advanced Search page I'd argue that both "Submit" and "Cancel" should be buttons. If the user has completed the form then clicks "Cancel" this has a non-minor consequence that their information is discarded. Also, "Submit" and "Cancel" are two complementary actions so should be presented and invoked in the same way.

3.4.3   Use a single contact address

The workbench "Contact Us" link and LSM "Email us" link on the Login page are both to S.L.Bowker@salford.ac.uk but the project's contact.html page lists enquiries@suregen.co.uk. It would be less confusing, and contribute to the impression of SURegen as a unified toolkit if a single e-mail was used across all sites. See also section 7.5.

3.4.4   Be consistent in handling comments

If the user adds a comment to a DSM stage page, the same comment is visible on all other stage pages for that programme. This is inconsistent with how comments on web pages are usually handled, which is to treat comments as page-specific. In contrast, if a user adds a comment to an LSM case study page it appears on that page alone, which is consistent with the how comments are usually handled. If the DSM comments are for the stage as a whole then perhaps these could be provided and displayed in a separate panel to the stage page.

Furthermore, if the user adds a comment on the LSM home page via the "I want to comment on this site" link the comment is not shown at all. This is inconsistent with the above. In addition, a user might assume such comments has not been accepted or will wonder what will be done about their comment (will it be read? is it pending moderation?) See also section 7.3.

3.4.5   Be consistent in handling "favourites"

Each page in the LSM has an "ADD TO MY FAVOURITES" link. Once added this changes to "REMOVE FROM MY FAVOURITES". So the only way a user can remove a favourite is to browse to it first. It is more efficient, and consistent, if the user can update their favourites by manipulating a list of them (to edit or delete them) as is supported in browsers or in the RSS feeds and e-Portal resources parts of the LSM.

3.4.6   Use "start date" and "end date" in both the DSM and LSM

In the LSM, projects have a start and end time. In the DSM they have a start and end date. As there is no notion of start time (HH:MM) adopt the terms "start date" and "end date" across both the LSM and DSM.

3.4.7   Use tabbed panel tabs correctly

Tabbed panels are used to switch between panels of information. The use of a tabbed panel tab as a "Logout" button in the LSM is inconsistent with how a tabbed panel is meant to behave. Likewise,

using the "Home" tab as the sole way of accessing the LSM home page is inconsistent, since a user would expect that clicking the tab they are already on would leave the display unchanged.

3.4.8 If "Add" is allowed then "Delete" should be allowed too

In the DSM, a user can add but not delete programmes or comments. Likewise, in The Local Authority Context-Community Strategy the user can edit the STAGE INFORMATION and click on an icon to upload a file which inserts an HTML hyperlink to the file into the STAGE INFORMATION field but there is no corresponding delete command and the user has to edit raw HTML.

A user would expect to be able to modify and delete anything they have added and using the same manner of interaction, in this case clicking a button.

3.4.9 Be consistent when handling erroneous data

If the user tries to update a DSM stage page category field with nothing (an empty string) then a "Please do not submit empty content" dialog appears. However, if the user tries to update DSM Guidance with nothing then the field is updated with the text "Practice notes is not valid!". Not only is this internally inconsistent, the latter is inconsistent with how errors in forms are usually notified, either by a dialog box and/or by highlighting the erroneous field in some way e.g. with a red border.

As another example of the latter inconsistency, when editing a field in a DSM stage page, a user can upload files. When attempting to upload a ".sh" file I got a message "The upload failed, please try again later." This message was placed in the field itself.

3.4.10 Be consistent in how HTML editing is done

The DSM fields accept and present HTML content. To avoid having to edit raw HTML the user can click on the field, then press an "RTE tool" button which allows them to edit the HTML as rich text. Not only is this non-intuitive to use (the editor should pop up when the user clicks "Edit" to edit a field rather than them having to explicitly click "RTE tool") it differs from how editing fields in other content management systems (e.g. Drupal) work where the editor appears within the field being edited, or pops up automatically, and the user can also switch between rich-text and HTML views.

3.4.11 Use the same content manager for both DSM and LSM

The LSM and DSM seem to be built with two different content managers and so differ in look and feel in a number of respects. As the LSM and DSM are part of the same SURegen toolkit it would be useful if they had an identical look and feel as it helps users learn more quickly, as they can apply their knowledge of how to use one part of the toolkit to the other parts. As the LSM and DSM have the same general design – a navigable, hierarchically-structured collection of editable pages – could the same content manager be used for both? I appreciate that this may be a major undertaking and so, not feasible.

3.5   Error prevention

3.5.1   Disable or do not show commands that users cannot do

In the LSM, after a "Normal" (as opposed to "Admin") user has logged in, they can see MEMBERSHIP MENU-Manage Website Content and, in the sub-menus, see commands to "Create new user", "Change Settings" and "System Log". However, if the user tries each of these, they are informed that

"I am sorry, but you are not able to manage users according to your privilege!"
"I am sorry, you are not allowed to change site settings according to your privilege!"
"I am sorry, you are not allowed to view system log info according to your privilege!"

If a user does not have sufficient rights to invoke an operation then either don't show it, or grey it out and disable it. This saves the user wasting time trying options that are not applicable, and, in turn, helps them learn what they are and are not allowed to do.

3.5.2   Only allow supported files to be uploaded

When editing a field in a DSM stage page, a user can upload files. When attempting to upload a ".sh" file I got a message "The upload failed, please try again later." Uploading ".doc" and ".txt" files worked fine. If only certain file types are supported then the file browser dialog box should restrict selections to files with the appropriate extension.

3.5.3   Confirm irrevocable actions like deletion

In DSM, Photo Gallery, a user can delete a file without having to confirm "are you sure?" first.

3.5.4   Use calendar widgets for dates

In the DSM, the user can enter a non-existent date e.g. "2012-14-01", as a date. This is accepted but an empty string is shown. Using calendar widgets for start and end dates in the DSM and LSM would prevent users from entering dates with the incorrect format.

3.5.5   Indicate required and optional fields in forms

For required entries in forms, add "* required" in black next to the name of the field or, if most fields are required fields then, instead, add "(optional)" in grey, next to the optional ones.

3.6   Help users recognize, diagnose, and recover from errors

3.6.1   Tell the user if they enter an invalid date

In the DSM, the user can enter a non-existent date e.g. 2012-14-01, as a date. This is accepted but an empty string is shown. The value should be validated and, if not a valid date, the user informed by a dialog and/or by highlighting the field in red. As an alternative, see section 3.5.4.

3.6.2   Tell the user if the start date is after the end date

In the LSM and DSM it is possible for the user to set the end date before the start date. Dates should be validated and, if not in chronological order, the user informed by a dialog and/or by highlighting the field in red.

3.6.3   Tell the user if non-numeric text is provided to a numeric fields

In the LSM, when adding a case study the user can enter text into the Fundings: field e.g. "SSSS". After pressing Submit this appears as "0.00". The value should be validated and, if not a number, the user informed by a dialog and/or by highlighting the field in red.

3.6.4   Tell the user if a field does not allow non-empty entries

If a user tries to update DSM Guidance with nothing then the field is updated with the text "Practice notes is not valid!". The value should be validated and, if not non-empty, the user informed by a dialog and/or by highlighting the field in red. See also section 3.4.9 and 3.8.5.

3.6.5   Tell the user why a file upload fails

When editing a field in a DSM stage page, the user can get a message "The upload failed, please try again later." shown in the field. The user should informed by a dialog and/or by highlighting the field in red. In addition, the reason why the upload failed should be given e.g. file not found or file of the wrong format. See also section 3.5.2.

3.7   Recognition rather than recall

No issues noted under this category.

3.8   Flexibility and efficiency of use

3.8.1   Make all URLs hyperlinks

In the DSM's The Local Authority Context-Urban morphology-Local Policy Guidance page there are 4 URLs

http://www.chapelstreet.org.uk/
http://www.portsmouth.gov.uk/media/REGEN_FINAL_PROOF_OCT11.pdf
http://www.estates.salford.ac.uk/page/Environmental%20Sustainability%20Policy
http://www.salford.gov.uk/d/scc-sustainable-school-travel-strategy_statementofintent.pdf

Likewise, Diagnosis-Needs & Issues Analysis-Analysis of social and economic need's Guidance page has

http://www.imd.communities.gov.uk/
http://publicsector.experian.co.uk/Products/Mosaic%20Public%20Sector.aspx
http://www.caci.co.uk/peopleuk.aspx
http://www.caci.co.uk/paycheck.aspx

These are all text-only. They should be turned into hyperlinks to save users having to copy and paste them into a browser.

3.8.2   Turn implied links into hyperlinks

In the LSM's SUREGEN PROJECT-About SURegen page it says "Read the latest news..." but there is no link to where the latest news is or whether this refers to project news or the RSS feeds. Similarly, in the DSM

- Diagnosis-Understanding the AREA-Urban Morphology-Resource consumption and options page: "BEDZED %u2013 insert link".
- Diagnosis-Needs & Issues Analysis, Analysis of social and economic need's Guidance page: "Census data - see Demography section (insert link)"
- The Local Authority Context-Partnership Development's Guidance page: "Key stakeholders – see Stakeholder analysis (link)"
- The Local Authority Context-Local Plans and Policy Information Guidance page has "The following planning documents are likely to be relevant:" with a list of document names but no indication as to where to get these.

3.8.3   Expand and contract menus explicitly

Clicking on the menu headers in the DSM's Regeneration check list expands/contracts the sub-menus which makes browsing through each category in turn less efficient as sometimes the sub-menu will close when a user doesn't want it to. It would be better if clicking on a category name just displayed the associated page and clicking on the "+"/"-" icons expanded and contracted the sub-menus.

3.8.4　Don't wipe the registration form when refreshing the Captca code

On the Registration page, clicking the Refresh circle icon to create a new Captca code clears the entire form. This can be a problem if the user has entered their details, but cannot read the code so click Refresh to create a new one, and then have to re-enter their details.

3.8.5　Allow empty fields

Many of the default fields in both the LSM and DSM are empty. However, if the user edits these they are not allowed to just provide an empty string. As not all forms have "Cancel" buttons/links (see section 3.3.1) the user either has to browse to another page or provide a single space. It would be easier just to allow empty fields.

3.8.6　Give the user complete control over their favourites and RSS feeds

In the LSM, there is no way for a user to remove the "Particroft Bridge Master Plan" favourite or the feeds "CABE Feed" or "REGEN News". It would be preferable if a user had complete control over their feeds and favourites.

3.9　Aesthetic and minimalist design

3.9.1　Use appropriate default window and widget sizes

The Workbench page has an unconventional layout in that the vertically-oriented navigation panel appears beneath the text. As a result the user has to resize the window very wide (e.g. almost to 1300 pixels) before the navigation panel appears on the right. Users should not, by default, have to resize windows. Putting the navigation panel on the left and removing the three shaded vertical bars between the Projects/Case Study panel and the navigation panel would reduce the width required by the page.

In the DSM, the centre area is too small to show the image on the home page. I had to resize the middle panel and set my browser to zoom out to 75% magnification to see it all.

3.9.2　Remove buttons/links that do nothing

Remove any buttons/links that have no underlying functionality, for example the Response command on site-specific comments in the LSM, as the user can waste time pressing them and become confused when nothing happens.

Likewise, in the LSM the user can drag and drop the RSS Feeds and Resources panels on the right-hand side. But when a new page is visited these return to their original positions. Again, if the action has no effect, don't allow it.

3.9.3 Remove "Archive list" in DSM's Diagnosis-Needs & Issues Analysis-Sustainability Analysis Guidance page

Is the "Archive list" at the bottom of the Guidance page still needed? It does not seem that informative on its own.

3.10 Help and documentation

3.10.1 Ensure user guides exactly match the software

Care must be taken to ensure that user guides exactly matches their software. This applies to screen-grabs of GUIs, command names, arguments etc. Inaccurate guides can be worse than no guides – for example, users can waste time looking for commands that don't exist, or expecting to see messages that are not displayed. For example, LSM guide is out-of-synch as the guide shows the LSM left-hand menu as

SUREGEN PROJECT

Project Mission

History

…

but the LSM actually has

SUREGEN PROJECT

About SURegen

…

Likewise in the LSM, there is no Create Strategic Planning button in the Strategic Planning category, which is shown in the user guide.

The wiki serves as an online glossary but does not seem to be consistent with the PDF glossary "SURegen Glossary (5th draft)" available via the web site link, http://www.suregen.co.uk/documents/glossary/. Is there any process to keep these consistent? Maybe this is not an issue as users cannot access the PDF glossary from within the LSM or DSM .

3.10.2 Ensure images exactly match the software

Related to the above, the DSM front page has an image indicating the main areas of the portal and what they do, again incurring a risk of divergence between the image and how the software actually looks, and an overhead of keeping these in-synch.

3.10.3 Embed help

A good GUI should provide all the help users should need (via presentation and naming for instance). Even given the problems highlighted elsewhere, it is clear from the LSM and DSM what operations they support and how to invoke these, so I think having user guides in Word document or PDF format is too heavyweight (not to mention the overhead of keeping them in-synch with the software).

The information in them would be more appropriate if delivered via a help menu e.g. the LSM manual could be used to populate the LSM pop-up help. Or, each page or panel could be given a "?" help icon which pops up a window with help for that specific page or panel.

The DSM front page has an image indicating the main areas of the portal and what they do. There is an overhead in keeping the image in synch with the actual portal. Again, panel and page-specific help would remove the need for this image.

3.10.4 Provide more guidance

Certain areas of the tools require more guidance information, which is in some cases incomplete or absent altogether. For example, in the Guidance for the DSM's The Local Authority Context-Community Strategy page, the MAP OR PLAN and AREA MAP sub-categories are not explained. Likewise for the Strategy Formulation-Regeneration Framework page's PEOPLE, STATISTICS, SCHEDULE TASKS and STAKEHOLDERS sub-categories.

The Diagnosis-Understanding the AREA-Demography page's NEIGHBOURHOOD STATISTICS sub-category states that, "Neighbourhood Statistics tool can be brought in as external tool" but it is unclear whether this is a developer TODO or user advice. If it is user advice then it's unclear what it means. It has a maximum width of 255 which perhaps implies a URL.

This information could either be provided in the Guidance pages, or, preferably, as tool tips supported by more detailed help accessed via a pop-up help called via a "?" icon next to each field. Some sub-categories e.g. in the Strategy Formulation-Policy Study page have this information next to the field in blue capitals e.g.

STAGE INFORMATION.DO YOU WANT TO UPLOAD THE RELEVANT POLICY DOCUMENTS
ISSUES AND PROBLEMS.WHAT ARE THE POLICY ISSUES
STAGE ACTION.CAN YOU WRITE A SUMMARY OF THE POLICY SITUATION AFFECTING THIS AREA

though it would be preferable if this was provided by tool tips and "?" icons to avoid overwhelming the interface with text.

Add a tool tip or help saying that the KEY WORDS in LSM forms are converted into links to the SURegen wiki and that if a page does not exist for their key word they will have to create an associated wiki page.

3.10.5 Add a "Support" tab

It is useful to make it very clear how and where a user can get help so add a "Support" tab with links to project contact e-mail address, a comments form and other information to both the LSM and DSM.

3.10.6 Add subtitles and commentary to video

There is a YouTube video within the LSM's WORKBENCH MODULES-Learning Support Module which provides a walkthrough of the LSM in use. As there is no commentary or screen mark-up to display what the user in the video is looking at, moving their mouse to, or doing, it's hard to understand what they're doing and why.

4 Bugs, typos and TODOs

4.1 Fix "Attach files" bug in LSM

In the LSM I could not attach any files either when editing an existing or creating a new case study. I could select a file but it would not be visible when I clicked "Update".

4.2 Fix broken links

Given the richness of information available in the LSM and DSM, it is essential to ensure that links and feeds are regularly checked both to ensure users don't waste time clicking on them and to give users confidence that the LSM and DSM are live and actively maintained.

The LSM and DSM "Project forum" links to http://www.suregen.co.uk/sur-forum/ give

>   Parse error: parse error in E:\prjs\SURegen\sur-forum\index.php on line 214

as does the LSM's "e-Portal – Resources" link to "Project discuss: Salford Regeneration" (http://www.suregen.co.uk/sur-forum/viewtopic.php?id=5).

The LSM's RSS feeds are out-of-date. REGEN News – Community Renewal has a date of 12/01/11 but visiting the feed at http://www.regen.net/go/news/ shows there is up-to-date news. Visiting the CABE feed at http://feeds.cabe.org.uk gives a broken link.

The following pages have broken links

- http://www.suregen.co.uk/documents/newsletter/: all links broken.
- LSM's CABE feed: http://feeds.cabe.org.uk.
- DSM's Diagnosis-Understanding the AREA-Demography Guidance page: http://www.urcs-online.co.uk/webmaster3/files/urcs/website/backgroundDocuments/Document/Employment%20Densities%20-%20Simple%20guide_1.pdf.

- DSM's Diagnosis-Understanding the AREA-Urban morphology-Stakeholder Analysis Guidance page: http://www.ogc.gov.uk/documents/Stakeholder_Management_Plan.pdf.
- DSM's Diagnosis-Needs & Issues Analysis-Stakeholder Analysis Guidance page: http://www.ogc.gov.uk/documents/Stakeholder_Management_Plan.pdf.

On a similar note, the LSM "e-Portal – Resources" link "SURegen Decision Support Module" links to /surdsm4t but the footer "SURegen DSM" links to /surdsm. Care should be taken to ensure that all links to versions of the DSM are updated otherwise a user could get confused.

4.3   Correct typos

In the LSM

- Search results in centre panel: "ITMES".
- Front page "comments" link, in centre panel, after posting: change "This comments was successfully posted" to "This comment was successfully posted".
- "About SURegen" page: "aims to aims to".
- "CPD DEVELOPMENT" – as CPD is Continuing Professional Development, the DEVELOPMENT is redundant. Just use "Continuing Professional Development" as the heading.
- "CPD DEVELOPMENT-Resources" page: "Mancheter".
- Favourites list: "My favouritis items".
- LSM, COMMENTS, Delete command dialog: "Are you sure to delete?" => "Are you sure you want to delete this comment?".
- "Configure Rss feeds" window: change "Rss" to "RSS".
- "Configure Rss feeds" window: "invalide".
- CASE STUDIES-Strategic Planning: change "Add Case studies" to "Add Case Study".

In the DSM

- The Local Authority Context, Guidance page, Problem / Question / Decision section: "Stragegy".
- Diagnosis-Planning the diagnosis: "EMPLYMENT".
- Needs & Issues Analysis: "relavent".
- Needs & Issues Analysis: change "be presented as bar chart" to "be presented as a bar chart".
- Diagnosis, STATISTICS: "relavent".
- Visioning, STATISTICS: "relavent".
- Visioning, STATISTICS: change "be presented as bar chart" to "be presented as a bar chart"
- Strategy Formulation tool tip: "Indentification".
- Home page, Guidance page, Look up a regeneration stage: change "will be displayed in right hand 'guidance area' when selected" to "will be displayed in the right hand 'guidance area' when selected" or "will be displayed in this area when selected".
- The Local Authority Context Guidance page: "acyion".
- The Local Authority Context-Community Strategy Guidance page: "stratgy".

- The Local Authority Context-Partnership Development Guidance page: change "Link to the JRF for more details…" to "See the JRF for more details".
- Strategy Formulation Guidance page: sort the text wrapping in bullet 2 by removing the line break between "potentials" and "towards".
- Strategy Formulation-Policy Study Guidance page: delete redundant line break between 3. and 4.
- Diagnosis Guidance page "How to communicate this decision, solution or action": delete "." on a line by itself.
- Diagnosis-Understanding the AREA-Demography "A. IMD OVERALL RANK": it's unclear if "A." is part of the name or "A. IMD" is a copy and paste oversight from a list of A, B, …
- The Local Authority Context-Urban morphology-Stakeholder Analysis Guidance page: delete Local Sir's spam comment.
- Diagnosis-Needs & Issues Analysis Guidance page: change "This sometimes could be presented as bar chart" to "This sometimes could be presented as a bar chart".

4.4   Complete TODOs

The following are possible TODOs:

- DSM front page Guidance states "from the regeneration checklist on the left hand navigation bars. There are 5 basic stages to choose from: diagnosis, visioning, programming, implementing, and monitoring…." but Monitoring is not in the check list.
- LSM, WORKBENCH MODULES-Learning Support Module page has "Forum"..."To be added".
- Clicking CPD DEVELOPMENT-Resources in the LSM shows "res1", "res2" …
- Clicking the Help button in the LSM causes a pop-up window, "About the Learning Support Module", to appear. This includes the text "This panel will be used in the future to display..." .
- LSM WORKBENCH MODULES-Decision Support Module: "this area will aid...".
- It also states that this panel will be used as a "3.Useful inputing panel and query result displaying…." with fields to enter a "From" and "To" postcode and a "Let's try displaying a "Find Directions on Google Map" here" link which pops up a Google Map. I assume this was an experiment of some functionality? Leaving these in can be confusing to users. Also, if this feature is to be integrated, it would be more appropriate if invoked via a specific button (e.g. next to the Help button, or within fields of pages where a user might want to include maps) than from within a pop-up help.

5   Suggested features

These are suggestions for additional features or functionality. Whether they are useful or desirable depends upon the target users of SURegen.

5.1   Include the Egan wheel

The Egan wheel[4] for sustainable development (is mentioned on the SURegen EPSRC page[5] and elsewhere. It may be useful to add this to the LSM or the wiki, to provide an overview of sustainable development and enhance the LSM as a learning resource.

5.2   Only display e-mails to authorised users

Comments on DSM pages can be visible to all, including the e-mail address. The e-mail addresses should be hidden to non-authorised, or anonymous, users. This reduces the risk of e-mail addresses being harvested and spammed.

5.3   Support export of DSM programmes

5.3.1   …to a file

Allow all the data on a DSM programme to be exported in various formats e.g. as structured plain-text, an Excel spreadsheet, or an auto-generated report as a Word document or PDF. This allows users to both use the data in other areas of their work and also gives them a means of backing it up. If this could be invoked via a RESTful[6] API call then the user could automate calls to this e.g. nightly and share their data more easily, if desired.

5.3.2   …to the LSM

Allow data exported above to be imported into the LSM to create a new case study.

5.4   Discriminate between intended and actual programme constraints

In the LSM and DSM, discriminate between original and actual start and end dates, so that any slippage or completion well before time can be noted. Likewise, discriminate between original funding and actual cost, for completed programmes and case studies.

5.5   Add a "Miscellaneous" category

To every page that a user can edit in the DSM, add a Miscellaneous section for information the user does not feel belongs elsewhere, and, likewise, add such a page for each programme as a whole.

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[4] http://social.ocr.org.uk/files/ocr/sustainable%20wheel.pdf

[5] http://gow.epsrc.ac.uk/NGBOViewGrant.aspx?GrantRef=EP/F007213/1

[6] http://en.wikipedia.org/wiki/Representational_state_transfer

5.6   Add support for notification

If a user adds a comment to a page, then notify the user who created the page. If a comment is added in response to an existing comment then notify the original commenter.

5.7   Promote the notion of a single SURegen toolkit

At present, the SURegen toolkit consists of the workbench page (wbhome/), the LSM, the DSM, the forum and the wiki. It is worth restructuring the relation between these to further promote the view of these as an integrated toolkit. For example, one could view wbhome/ as the "welcome screen" for the toolkit and move the content of the LSM's SUREGEN PROJECT-About SURegen page to there. So, wbhome/ provides an overview and links to of the LSM, DSM, wiki and forum. This would also reduce the amount of duplicated information spread across the components, which can otherwise incur maintainability problems.

6   A concern about provenance

Any logged-in user, it seems, can edit, remove or update pages or, for the LSM, delete site-wide comments. If a DSM or LSM comment is deleted it is shown as scored out on the page, but then on revisiting the page there is no trace of the comment. In the DSM, an "Admin" user can delete a stage and it is unclear if this affects just the current programme or all programmes (removing that stage page from all the programmes). In the DSM, an "Admin" user can see a history for fields by clicking on a light bulb icon by a field, but it is unclear as to how comprehensive the recording of the history of edits to the DSM and LSM actually is. Is a complete history of interactions with the LSM and DSM preserved? In my view this is an essential requirement of such a toolkit: given that it stores a wealth of information from a number of users it is essential that all information that is added, changed or removed is recorded along with the identity of the users, in addition to it being possible for a previous state to be restored in case of accidental or malicious deletion.

7   Sustainability recommendations

The recommendations in this section relate to the sustainability of SURegen and issues around the workbench and the project that were noted during the evaluation.

7.1   Undertake a sustainability self-assessment

The Software Sustainability Institute provides an online sustainability evaluation[7] which takes about 15 minutes to complete and provides a customised report on the sustainability of a project and its software. From this, more detailed recommendations relating to sustainability can them be explored.

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[7] http://software.ac.uk/online-sustainability-evaluation

7.2   Promote the workbench

There is no link from the project web site, http://www.suregen.co.uk/, to the workbench page at http://www.suregen.co.uk/wbhome/. You could add a prominent "how to get access" page or "how do I try it" link on front page to encourage interest.

7.3   Determine a support policy

If a user adds a comment on the LSM home page via "I want to comment on this site" the comment is not shown. Likewise if the user adds an entry to the DSM Guidance area using the "New Comment or question" button, there is no indication as to what then happens. If questions are invited, then this implies they are read and replied to. Comments or requests for help that are not acknowledged can deter users from using software.

7.4   Improve maintainability

The number of resources – LSM, DSM, toolkit page, wiki, forum, guides – incurs a maintainability overhead both in terms of managing these resources and in terms of keeping information in them consistent. Suggestions to improve maintainability is given in sections 3.4.11 (use a common content manager for the LSM and DSM), 3.10.3 (embed help) and 5.7 (treat wbhome/ as the toolkit's "welcome" screen and move certain content there). Another suggestion relates to the wiki. This seems to serve as an online glossary but that is all. If this is its only role then might it be worthwhile moving this content over into the LSM, thereby reducing the number of resources to run.

7.5   Avoid personal e-mail addresses

The workbench "Contact Us" link and LSM "Email us" link on Login page is to S.L.Bowker@salford.ac.uk but the project's contact.html page lists enquiries@suregen.co.uk. Personal e-mail addresses should be avoided and the project e-mail address used. E-mails to this address should be received by more than one. A user can be deterred from using software further, or a potential user might look elsewhere, if they get no reply to an e-mail. In the worst case this can lead to bad word-of-mouth to others.

7.6   Manage TODOs

There are a number of TODOs as listed in section 4.4. These TODOs should be logged somewhere, ideally within an issue tracker.

7.7   Keep active

The last news article on the web site seems to be "Briefing(2011-2)" in February 2011. Infrequent activity (like news articles or updates) can give the impression that a project has stagnated or has completed, even if it is still active.

7.8 Trade-mark SURegen

Using "SURegen" as a search term shows that the SURegen web site is the top hit in both Google and Bing so there is little chance of confusion between your software and that of others within the UK. The closest names to SURegen are a US company, Sure-Gen, http://www.suregen.com/, who make generators, and http://www.suregen.de/ and http://www.nlg-wiki.org/systems/SUREGEN-2 a clinical medicine report project, last updated in 2009.

If you secure longer-term funding it might be useful to trade-mark SURegen and so protect the project and product name. I did a trade-mark search at the UK Intellectual Property Office web site, http://www.ipo.gov.uk/, and there are no registrations that match or come close to SURegen.