CMPUT 302 Deliverable 2

Ayrton Chilibeck*
achilibe@ualberta.ca
the University of Alberta
Edmonton, Alberta, Canada

Eric Kim*
dek@ualberta.ca
the University of Alberta
Edmonton, Alberta, Canada

Yu Liu*
yliu30@ualberta.ca
the University of Alberta
Edmonton, Alberta, Canada

Vedant Talati*
vtalati@ualberta.ca
the University of Alberta
Edmonton, Alberta, Canada

Marcus Wilson*
mawilso1@ualberta.ca
the University of Alberta
Edmonton, Alberta, Canada

ABSTRACT

We analyze the functionality and quality of Illumia Lab's *Scenario Builder* to comment on potential improvements and provide a short-term roadmap for development and improvement of the application. We encounter and provide solutions for various problems in the UI, the functionality of the system and the documentation of the program with respect to Human-Computer Interaction principles, Gestalt principles and CRAP design principles. Our solutions follow previously established results from the field of HCI, colour theory as well as results from our experiences as users.

KEYWORDS

Human-Computer Interaction, UX Design

ACM Reference Format:
Ayrton Chilibeck, Eric Kim, Yu Liu, Vedant Talati, and Marcus Wilson. 2024. CMPUT 302 Deliverable 2. In *Proceedings of (CMPUT 302 '24: Illumia Labs).* ACM, New York, NY, USA, 3 pages. https://doi.org/N/A

1 INTRODUCTION

We evaluated the Illumia Lab's *Scenario Builder* for

2 SYSTEM FLAWS

During our exploration and use of the system, we encountered problems in the UI, the program functionality and the documentation of the program. We outline the most important findings in the following sections.

2.1 UI

Our results from UI analysis are largely cosmetic, but the current state of the software impedes effective use of the system by the end users. The layout of the system does not efficiently show the information in a given scene and the process of changing a scene takes a large amount of work from the user. Additionally, the system does not have clear indication of the correct user actions and fails to introduce the user to the potential actions at any given point in the scene building process.

2.1.1 Colour-Scheme. The current colour scheme (Purple (`#07012F`), Blue (`#0191FD`) and Red (`#FC5C00`)) is jarring to the eyes. The literature establishes that red and purple are particularly hard for users to look at for extended periods of time [3].

2.1.2 Tab Display. The current display of tabs in the scene builder fails to effectively show the user the state of the program. Tabs for each scene do not give the user context on the scene's purpose or the information contained therein. The preview pane attempts to mitigate these shortcomings, but the scene-graph display is lacking in relationships to other scenes.

2.1.3 Preview Pane. The alignment in the preview pane is poor, in addition to an absence of dynamic sizing of the screen (for mobile and re-sizable web pages) the utility of the data presented is questionable.

2.1.4 Ease of Use. Building a scene currently takes a minimum of 9 clicks. Although the community has debunked the '3-click rule' [1], the importance of ease of access for information is still paramount in design. Current research into the concept of 'Interaction Elasticity' [2] rather enforces the significance of eliminating useless interaction. Currently, the scene builder presents the user with a great deal of useless interaction in the form of these clicks.

2.2 Functionality

The website currently has a number of usability-impacting, unimplemented features. We list the systems impacted here.

2.2.1 Saving. Currently, the system does not allow for saving of a scene or working on a previously saved scene. This prevents the user from creating a well-though-out, well-crafted scene.

2.2.2 Avatar. The use of an avatar does not feel necessary to the development of a scene, and the stated requirement in the builder is not reflected in the business logic.

2.3 Documentation

In general, the builder lacks documentation. A number of terms and interactions with the software are not explained by the user's interactions with the program.

*All authors contributed equally to this research, and are listed in alphabetical order for simplicity

CMPUT 302 '24: Illumia Labs, January 2024, Edmonton AB

ACM ISBN N/A
https://doi.org/N/A

3 REMEDIATIONS

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

3.1 UI

3.2 Functionality

3.3 Documentation

4 SUGGESTED ROADMAP

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

4.1 Scene Representations

4.2 Documentation

4.3 Effective UI

4.4 Color Scheme

5 CONCLUSION

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

6 ACKNOWLEDGMENTS

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

REFERENCES

[1] [n. d.]. Three-Click Rule. https://en.wikipedia.org/w/index.php?title=Three-click_rule&oldid=1173851653

[2] World Leaders in Research-Based User Experience. [n. d.]. *Interaction Elasticity.* Nielsen Norman Group. https://www.nngroup.com/articles/interaction-elasticity/

[3] Mark Kirkland Jones. [n. d.]. *Human-Computer Interaction: A Design Guide.* Educational Technology.

APPENDICES

A RESEARCH METHODS

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

B ONLINE RESOURCES

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna.

Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.