

Can an Unknowing Participant distinguish between Procedurally generated and Human designed Interiors? - WIP title

Thomas O'Leary

Abstract—What's the problem? What am I looking at? How does that help solve the problem?

Opening, Challenge, Action, Resolution

Decorating an interior can be time consuming. *Define time consuming?*

Attempt to see if procedurally generated interiors can be perceived as human designed. Comparing the two together and see if participants prefer the procedurally generated designs.

I. INTRODUCTION

What is Procedural generation? What specifically is Procedural interior generation? Explain more why this could be a valuable tool for games?

Why should it be compared to human created interiors?

II. BACKGROUND & SUPPORTING LITERATURE

Go into a level of detail about how procedural interior generation can be done. (Different methods etc)
Paper that I read. Only writing this to test that my .bib file is working. [1]

III. RESEARCH QUESTION

From the above sources, I have formed **actual research question that's totally not wip anymore**

A. hypothesis & null hypothesis

IV. ARTIFACT

A. What will be made

AI that procedurally generates interior at runtime in a pre-defined room size and access to pre-made furniture assets. Will be later compared with human designed interiors (being given the same room size and assets)

B. How will I ensure Quality

Quality control. Roadmap? Unit Testing? Integration testing?

C. How will I create it

The AI will be made in the Unity game engine (Version 2020.3.12f1)

D. Why will this answer the questions

V. RESEARCH METHODOLOGY

A. Experimental Design

B. Limitations

Time, resources

C. Sampling Plan

Sample size, sampling method

D. Data management plan

Managing, collecting, & storing data

E. Data Analysis

F. Ethical Considerations

VI. APPENDIX

Data analysis code, supporting screenshots, list of unit tests & testing plan

REFERENCES

- [1] T. Germer and M. Schwarz, "Procedural arrangement of furniture for real-time walkthroughs," *Computer Graphics Forum*, vol. 28, no. 8, pp. 2068 – 2078, 2009.