

Technology and User Interaction

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October 16, 2013

Abstract

The abstract summarises the content of the paper or report and should have 70-200 words (depending on the publisher or other requirements); It should state briefly what the paper is about (maybe also what methods were used), what its (new) results are, why it is important or significant. It can also be useful to state (or indicate implicitly) who is the addressed readership and whether its a review article, a short paper, a pilot study, an extension of previous work or a thesis. Try to avoid special symbols, abbreviations, and citations.

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1 Introduction

There are different ways to write an introduction. Typically it contains background information and a review of literature which indicates how the study fits into the context of other previous work. This way the introduction can address the significance and importance of the study. Major related publications in big journals should be cited as well as closely related other articles. The literature review typically uses newer papers when it tries to address the state-of-the-art of a technique or recent developments. However, when first mentioning a method name the historically first source that introduced that concept should be cited. There are different citation styles and here is an example (?). The introduction typically motivates the general hypotheses, aims and research questions of a paper, report or thesis.

The research question is important.

Questions raised in the introduction can later be answered in the final discussion.

The introduction often ends with a brief overview of the structure or organisation of the paper, report or thesis.

2 Background

Why we need user engagement

2.1 The Skinner Box

The Skinner Box is a technique named by B.F. Skinner describing a small cage which houses a small animal, a lever and a way of delivering rewards to

the animal (Slater, 2005). The idea was to train the animal to continuously hit the lever. The animal gets rewarded at random intervals for lever pressing, with the possibility of punishment if the lever is not pressed (usually by electric shock). This technique has been around since the 1930s and has been implemented in video games since their inception.

Game designers have expanded the Skinner Box concept and made it feel like second nature to players. They have done this by offering virtual rewards to players who achieve pre-defined goals (this is obvious in any games that have levels and/or virtual currency) and recently by punishing players for not playing regularly (usually by devaluing the players hard earned virtual currency or by making in-game possessions deteriorate).

The Skinner Box concept is a great way to develop players obsession to a game while offering no real world reward, often leaving the player wondering why they wasted so much time on the game (?) (5 Creepy Ways Video Games Are Trying to Get You Addicted, n.d.).

2.2 Gamification

What is gamification?

2.3 Virtual Reality

3 Elements in Game Design

3.1 Stories

3.2 Rewards

3.3 Usability

3.4 Competition

3.5 Environment

4 Existing Projects

4.1 Unit9

4.2 City Evolutions

4.3 Vivid

5 Proposal for the City Evolutions project

6 Sections

There can be several sections and subsections that establish the main part: E.g. Background, Methods, Data, Environment or Task, Experiments, Results or similar as appropriate. The individual section titles can be more specific and expressive depending on the topic of your paper.

7 Literature Review

7.1 CSSE Honours Thesis Specifications

For several years CSSE required the following specifications for an Honours report:

- Cover page, containing title, student name, submission date and supervisor name.
- Minimum of 50 pages, using 12 point font and double spacing (but at least 10,000 words).
- Minimum of 25 references.

7.2 Assessment

Assessment of an Honours report would typically look points such as:

- Clear understanding of the topic of the work.
- Literature review (analysis, citations, organization, comprehensiveness).
- Clear problem definition and description.
- Methods applied to solve the problem (complexity, suitability).
- Comparison of alternative approaches, identification of the problems.
- Results/analysis/conclusion.
- Report presentation

8 Methods

8.1 Research

8.2 Observation

Being a part of the City Evolutions team i have had access to a number of statistical data around the current level of interaction between the users and the various City Evolutions projects. Some of this data includes:

- Number of QR codes scanned commentadd reference to table
- Number of NFC chips scanned commentagain reference the table
- Number of interactions with various applications commentand again

The description and discussion of the methods can include some theory. Formulas can be in-line like that $a \cdot b = d$ or on a separate line with an equation number that you can refer to

$$a \cdot b = d \tag{1}$$

9 Experiments

Describe and discuss the experimental set-up employed in our study. We also include a test figure here (see Figure 1).

9.1 Results

add a graph in of interations over days

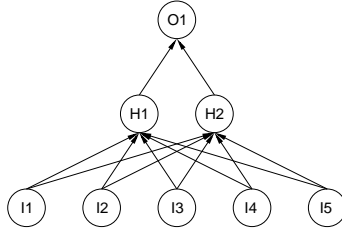


Figure 1: This is to show how to include graphics. Always put a reference in the caption where the graph comes from (this one is from the COMP3330 lectures).

QR Code	Total number of scans	Number of scans per day
qr1	100	1

Table 1: QR Codes

QR Code	Total number of scans	Number of scans per day
NFC1	100	1

Table 2: NFC Chips

Project	Total Interactions	Interactions per day

Table 3: City Evolutions Projects

9.2 Just an example table

We include a table to show how it can be done (see Table 4).

Speed (<i>mm/sec</i>)	Methods	Robot	Team, References, Description
170	learned		Sony, (?)??
230	hand-tuned	ERS-210(a)	German Team
245	hand-tuned	ERS-210(a)	Austin
???	hand-tuned	ERS-210(a)	NUbots
254	hand-tuned	ERS-210(a)	UNSW, P-walk of (?)
270	learned	ERS-210(a)	UNSW/NICTA, (?)
295	learned	ERS-210(a)	NUbots, (?)
291	learned	ERS-210(a)	Austin, (?)

Table 4: History of speed improvements for the Sony AIBO robot.

10 Discussion

Give an extended and detailed discussion of your study. Explain what we can learn from your study.

11 Conclusion

A brief final summary of the main achievements and outcomes. Possibly some suggestions for future work that can follow on from your project.

Acknowledgements

The author is grateful to