“Channel shift – improving digital channels of communication with the City of Edinburgh Council using Business Intelligence tools and User Centered Design practices”

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# Introduction

an introduction to the document, clearing stating the hypothesis or objective of the project, motivation for the work and the results achieved. The structure of the remainder of the document should also be outlined.

## Context

* Problem statement: increase the use of digital ways of communication with the Council by improvement of services/procedures
* Use BI tools and design practices in the process.
* Work with CRM system.
* It should be iterative (at least 2 cycles)

## Objective of the project

* How to effectively use UCD combined with BI in service design?
  + At which stages of service design one should perform usability testing?
  + How to deal with unstructured data in BI systems?
  + How to incorporate in the process ethnographical methods?
  + How to improve insights we get from data? Is it possible to answer questions like: why bins are missed? Why street lights break?

## Context objective

* Why people don’t use digital channels to contact the CEC?
  + Determine patterns of behaviour
  + Investigate thoroughly underlying causalities

## Thesis structure

# Background

background to the project, previous work, exposition of relevant literature, setting of the work in the proper context. This should contain sufficient information to allow the reader to appreciate the contribution you have made.

## The role of design

## Data-driven design

### Data-driven design methods

### Business Intelligence

#### Introduction to Business Intelligence

#### Review of recent works

#### Business Intelligence and User Centered Design

#### Architecture

#### Data analysis in Business Intelligence

#### Structured and Unstructured data

(Baars & Kemper 2008)

## Human-driven design

#### Introduction to “anthropological” design

#### User Centered Design

#### Review of recent works

#### Tools and practices

Design tools that could be used:

* Ethnographical methods
  + Interviews/surveys
  + …
* Usability inspection methods (as early as possible):
  + Heuristic evaluation
  + cognitive walkthroughs
* Usability testing methods (later on, after some ground was established):
  + Qualitative
    - In-person testing (so-called hallway testing)
    - Remote testing
  + Quantitative
    - comparison test (a-b testing)
    - Success rate
    - task scenarios
* prototypes
  + “low-fidelity” – as early as possible
  + “high-fidelity” – later on, after some ground was established
* participatory workshop (focus group)
* Think a-loud technique
* personas
* hackathon

Analytical tools:

* 5 why model
* Swot analysis
* Cost-benefit evaluation
* QUPER model

# Description of the work undertaken

this may be divided into chapters describing the conceptual design work and the actual implementation separately. Any problems or difficulties and the suggested solutions should be mentioned. Alternative solutions and their evaluation should also be included.

## Preliminary work

### Literature review

### Meetings in the Council

## Iteration 1

### Gathering requirements

### Implementation on IBM Cognos

## Iteration 2

# Analysis or Evaluation

results and their critical analysis should be reported, whether the results conform to expectations or otherwise and how they compare with other related work. Where appropriate evaluation of the work against the original objectives should be presented.

## Preliminary work

## Iteration 1

## Iteration 2

# Conclusion

# Bibliography

Baars, H. & Kemper, H.-G., 2008. Management Support with Structured and Unstructured Data—An Integrated Business Intelligence Framework. *Information Systems Management*, 25(2), pp.132–148.