Plan Overview

A Data Management Plan created using DMPMelbourne

Title: Effects of Hedonic Information System Breaks on Problem Solving

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Template: University of Melbourne DMP Template

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Project abstract:

Today, most individuals' leisure breaks consist of using hedonic information systems (HIS). Activities such as texting, checking emails, browsing the web, scrolling through social media, watching short form videos, and playing video games are interspersed between work and study. A wealth of literature from various disciplines have examined the effects of cyberslacking, IT mediated interruptions, and media multitasking on productivity and engagement of primary tasks. However, little research has investigated the effects of HIS mediated breaks on creativity. Research from psychology has suggested that breaks promote creativity in laboratory settings through incubation effects, but studies have not investigated how HIS use during breaks affects this relationship. In our study, we introduce a puzzle task that often leads to impasse, or the feeling of being stuck. We first attempted to replicate incubation effects by assigning individuals to break or no break groups. In the break group, we investigated the effect of the type of digital media usage on creative problem-solving. This study contributes to understanding the interplay between unconscious cognitive processes, digital media use, and creative insight. It offers implications for enhancing creativity in the context of modern technology.

ID: 2921

Start date: 03-11-2023

End date: 01-06-2024

Last modified: 02-11-2023

Effects of Hedonic Information System Breaks on Problem Solving - Managing Data @Melbourne

1. Getting Started

Faculty / Department

- Other

School of Computing and Information Systems

Project Start Date

03/11/2023

Project End Date

01/06/2024

2. Developing your DMP (about your data)

What kinds of data will you collect, create or reuse?

The data will be collected online. We generate a unique ID for each participant, and then collect the following:

- keystroke behavior (l, r, u, d) and whether participants restart levels
- duration it takes to complete puzzle, the duration prior to starting the break, the duration of the break, and the duration after the break
- some items after returning from a break (mind-wandering frequency, type of media used during break such as TikTok, Reddit, texting)
- demographic items like age, gender, handedness
- some survey items including time spent on digital device per day, time spent on video games per day, time spent using digital media for leisure purposes, familiarity with Sokoban and other puzzle games
- any feedback

What file formats will the data be in?

The data will be in text/number format on a csv format.

3. Ethics and Legal Issues

How will you manage any ethical issues?

We are applying for Ethics approval from the University of Melbourne.

How will you manage copyright and Intellectual Property Right (IPR) issues?

We do not expect any copyright or intellectual property right issues.

4. Organising, Storing and Backing-up your Data

How will you store and backup your data during the project?

Data is stored on MongoDB initially. Processed data will be stored on a University share drive, which is backed up by University IT.

How will you manage access and security?

Raw data on MongoDB is password protected and can only be accessed on computers with certain IP addresses. Processed data will be stored on password protected computers.

5. Documenting and Describing your Data

What documentation and metadata will accompany the data?

We do not plan to significantly document or produce metadata.

How will the consistency and quality of the data be controlled?

Pilot tests have been conducted to ensure that data produced from the website is consistent and of good quality. Numerical data will be inspected manually to check for outliers or possible errors.

6. Sharing and Preserving your Data

How will you share your data?

Data will not be shared.

Are there any restrictions on data sharing required?

The data will not be shared.