

# Document-centric approach for developing ontologies

## Data Management Plan for Evaluation Process

### DATA COLLECTION

#### **What data will you collect or create?**

We will be collecting a range of quantitative and qualitative data. These include:

1. Personal information (names and emails) and level of expertise.
2. One to One test in order to have user's perceptions of reading and exploring ontology in two different formats and finding errors and the potential of new ontology format as a word document
3. Remote test using Zoom/Skype . These are conducted at the university using the provided facilities (meeting rooms and computers and personal laptop).
4. We will manage a feedback survey to participants about their experience of exploring and comparing two formats of the same ontology.
5. We will use Protégé to explore the ontology as well as ShareX software to record screen activities. Our focus is to follow users' behaviour while reading the ontology.
6. We are using Newcastle University repositories as a means to store all collected data that are of interest to the project.

#### **How will the data be collected or created?**

We will record the voice and screen activities whilst the undergoing the evaluation session using the 'Zoom' software and they will be stored as .mp4 files. These recordings will be transcribed and we will create a master Folder 'evaluation-sessions' and a number of sub folders, labelled as:

- amino-test
- pizza-test

The researcher is responsible for reading through and exploring the data.

The feedback survey to capture perceptions of the participants will be held anonymously on Newcastle university server.

The Briefing Notes and Research Summaries will be kept on Dropbox server.

### DOCUMENTATION AND METADATA

#### **What documentation and metadata will accompany the data?**

We will record metadata in a .txt file that accompanies the data collection. We will include information that will describe key aspects of the data, such as:

- Researcher information
- Project description
- Temporal and geographic coverage of the data collection

- Data source(s)
- Technical information on files
- Data collection instruments
- Citations to related publications
- Technical information on files, e.g., information on file formats, file linking

## ETHICS AND LEGAL COMPLIANCE

### **How will you manage any ethical issues?**

All participants will sign a Consent form agreed to by the Newcastle university ethics committee (Ref. 18-BLF-009) We have guaranteed anonymity to our interviewees and focus group participants. However, anonymised transcripts of the will be stored. All identifying information will be kept securely in a locked office.

### **How will you manage copyright and Intellectual Property Rights (IPR) issues?**

IPR issues will be dealt with in line with Newcastle University policy.

## STORAGE AND BACKUP

### **How will the data be stored and backed up during the research?**

Storage and back up will be in three places:

- On Laptop of Researcher
- On a portable storage device
- On the Newcastle University personal drive storage.

The researcher will be responsible for the storage and back up of data. This will be done weekly.

### **How will you manage access and security?**

Both the laptop and external storage device will be password protected.

The laptop has anti-virus software installed which is updated daily.

The feedback survey information will also be password protected on Newcastle University server.

The paper consent forms from participants will be kept in the researcher's university office.

## SELECTION AND PRESERVATION

### **Which data are of long-term value and should be retained, shared, and/or preserved?**

We will preserve the data for 6 months on university servers.

### **What is the long-term preservation plan for the dataset?**

We will deposit our data in a university data depository with no cost. We will store files in word files and excel files. The recording videos will be stored as .mp4 format.

## DATA SHARING

### **How will you share the data?**

Some of the ongoing data will be shared as results and outcomes of the users evaluation test. For all other data we will use Newcastle University repository, where we can choose how to share data with any interested parties.

### **Are any restrictions on data sharing required?**

Data which underpins any publication will be made available at the time of publication. All unpublished data will be deposited in a data repository 12 months after the end of the study.

## RESPONSIBILITIES AND RESOURCES

### **Who will be responsible for data management?**

The researcher will be responsible for

- data capture
- data management
- metadata production
- storage and backup
- data archiving
- data sharing

### **What resources will you require to deliver your plan?**

We have sufficient storage and equipment to save all research data on Newcastle University server.