

# LoggerMan, A Software to Capture, Visualize and Preserve Computer Activities as a Digital Personal Archive

Zaher Hinbarji, Rami Albatal, Noel O'Connor and Cathal Gurrin

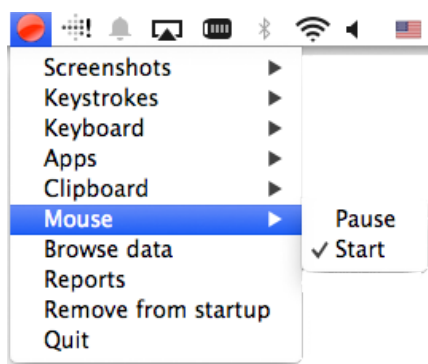
## Introduction

LoggerMan is a comprehensive logging tool to capture many aspects of computer usage. It also comes with reporting capabilities to give insights to the data owner about his/her computer usage.

This is to address the current lack of logging software in human-computer interaction domain, which helps to build datasets for HCI experiments and also to better understand computer usage patterns. It is available online at: <http://loggerman.org/>

## Overview

- It helps researchers and lifeloggers to collect interaction data produced during normal computer usage.
- The main goal of LoggerMan is to work passively in the background, intercept usage events and store them for later analysis.



LoggerMan Menu

## Keyboard-related Modules

- Responsible for capturing keystrokes events and storing them in local files.
- Word-based mode: concatenates the events stream into words.
- Key-based mode: tracks each key separately and stores it associated with its time stamp (important for Keystroke Dynamics experiments).

## Mouse Module

- All mouse actions are traced by this module: move, right/left up/down mouse buttons events, scroll and drag-and-drop actions.
- We utilised this before to build a dynamic authentication system based on mouse curves only.

## Screenshots Module

- Captures a screenshot of the current active window.
- Adjustable shooting intervals (5, 10, 30 sec) or a smart-shooting option.
- Screenshots can provide valuable information about the content that the user is consuming or non-textual content that the user is creating.

## Clipboard Module

- Clipboard module is responsible for tracking copy-paste operations.
- Any text the user copy to the clipboard is captured and logged.

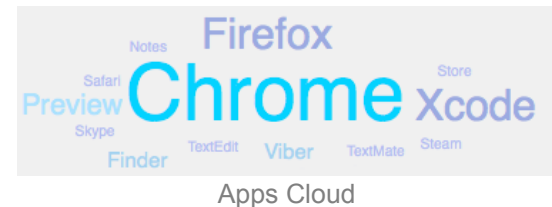
## Apps Module

- This module is designed to track apps transitions.
- It offers a simple overview of app usage, without any potential privacy issues of actually capturing the screens.

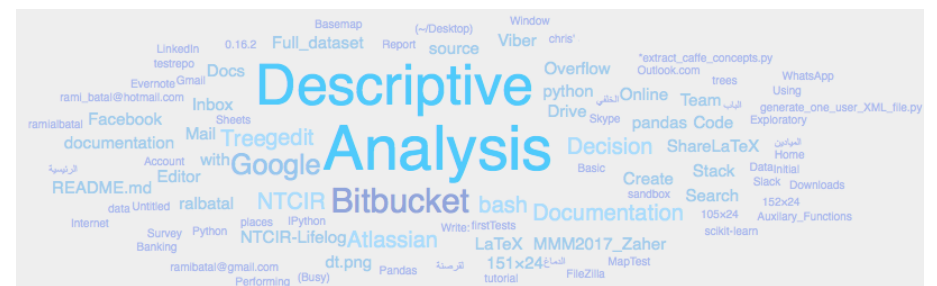
This project has been funded by Science Foundation Ireland (SFI): SFI/12/RC/2289

## Reporting and Insight

- A local reporting tool is included to visualise and give insights to the data owner about his/her computer usage.
- It presents three tag clouds: used apps, typed words and windows titles.

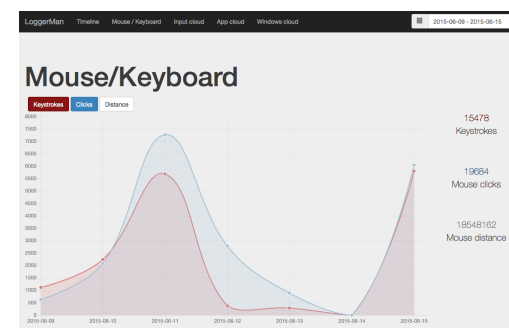


Apps Cloud



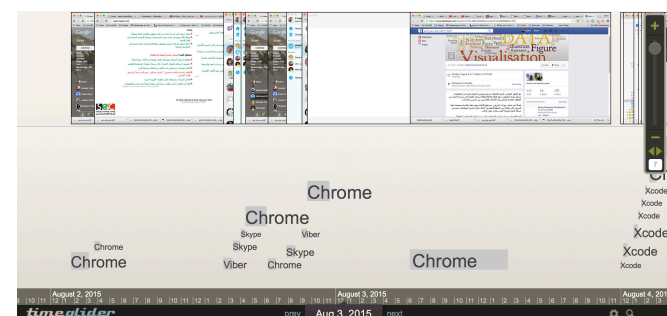
Windows Titles Cloud

- Information about mouse clicks and typed keystrokes during a time frame is also presented as a graph.



Mouse/Keyboard Usage

- LoggerMan organises the screenshots and the app usage data in a zoomable timeline to provide a dynamic and up-to-date view of computer usage.



Apps & Screenshots Timeline

- The most used keys during a date range are also visualised as a heatmap.



Keystrokes Heat Map