**Project Title**: OpEn Data Privacy ASsement (OEDiPuS)

**Contact**: Shamal Faily (sfaily@bournemouth.ac.uk)

**Project Description**:

* Open data is data and content that can be freely used, modified, and shared by anyone for any purpose. In recent years, there has been an increase in open data publishing internationally by both corporate and public bodies. When used effectively, open data demonstrates the benevolence and trustworthiness of contributing organisations, and provides useful datasets for corporate and academic researchers.
* While our expectations about how confidential information will remain if shared with friends, family, or even social media are likely to be met, this may no longer be the case with information shared with contributing bodies. The resulting privacy threats have been demonstrated by several successful re-identification attacks relying on open data. Consequently, organisations need to think carefully about the costs and benefits of making data open, but while there are several stakeholders in the decision making process, none of them appear to adequately consider the implications of privacy.
* We have recently developed a process framework to assist open data stakeholders when making privacy decisions in open data publishing. This framework is complemented with spreadsheets for collecting information from stakeholders, and an emerging meta-model that illustrates how concepts related to open data and privacy decision making are related. Tool-support implementing this meta-model and consolidating the spreadsheet based data into a coherent design model would help decision makers make sense of the implications of open data publishing decisions.

**Project Objectives:** The objective of the OpEn Data Privacy ASsement (OEDiPuS) project is to develop a software prototype that consolidates the input provided by open data publishing stakeholders into a single design model.

**Project Team & Work Plan:**

* The OEDiPuS project team will consist of Shamal Faily, Jane Henriksen-Bulmer, and an undergraduate Research Software Engineer (RSE).
* The RSE – working under the direction of Faily and Henriksen-Bulmer – will develop a tool that converts the spreadsheet data collected by the process framework into a single XML-based model. The model will conform to an existing meta-model associated, and will be compatible with the CAIRIS security design tool. The tool will be developed using a lightweight scripting language (Python or JavaScript), and its source code will be released under a permissive open source license.
* We will evaluate the prototype by using it to generate CAIRIS models based on pre-existing case study collected about open data publishing decisions made by a UK Local Authority. The models will be used to determine whether open data stakeholders can make informed decisions based on data processed by tool. The meta-model and prototype will be revised on an on-going basis as insights are gleaned from the development and evaluation activities.
* The outputs of OEDiPUS will be the software prototype, a report on the design and evaluation of the tool, and an end of activity report. All deliverables will be made available by June 2017.

**Timeframe:** The project will run from Jan 2017 to Jun 2017.

**Research Assistant**: We require an **Undergraduate Research Assistant** to work as research software engineer (RSE). The RSE will assist Faily and Henriksen-Bulmer in the development and evaluation of the software prototype, assist in the design of the evaluation activities, and assist in the authorship of publications arising from this project. The required set of skills required include one or more of the following: Python, XML, Linux. In addition, an interest in privacy and open data would be desirable.

**Hourly rate:** £9.76

**Number of hours:** 205 Hours