**Interactive Media Design and Data Visualisation**

CA 1 worth 60%

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| **Class** | **Date out** | **Date in (6pm)** |
| Full time | 22th Oct | 18th Nov |
| FLITE | 11th Oct | 11th Nov |

**Overview**

For this CA you will submit both documentation (40% marks) and an Interactive Dashboard(s) comprising of several visualisations (60% marks). You may be required to present your solution to the lecturer on or after the submission date.

The CA documentation will concentrate on the following areas;

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| **Section** | **Description** |
| CA Summary | Overview description of your CA and what you are trying to do. What are your main objectives and what are you hoping to discover? |
| Background | Why and how you came up with this idea. Why do you have an interest doing data collection, analysis and visualisation in this area? Has this or a similar data visualisations / analysis been done before in this area? Etc. |
| Data set(s) | List the data sets you have acquired and where you got them from. |
| Seven stages | Document the tasks you completed at each stage of the seven stages for each data set. Some of these stages are done on the data itself and some are done in Tableau. Document both and include a screenshot to illustrate your point. |
| Problems and solutions | What problems did you encounter and what solutions did you implement to resolve these problems?  Did you create any visualisations that did not work and why? Did you have to change the visualisation chart type to another, so as to better deliver your message (e.g. bar chart to bubble chart etc.). Include these visualisations that did not work in your documentation also. |
| Conclusion | Final conclusions and journey of your CA. This should be the most interesting section in your document that outlines the discoveries you have made after visualising and interacting with your data.  Specifically mention what you discovered and how your visualisation brings these findings to light. What makes your visualisations unique and clearly highlights this new information.  What story does your visualisation tell? What pattern / trend or item of discovery do you now see that you could not have seen before when just reviewing the raw data?  What are your recommendations and direction for further analysis and visualisations? |

The data visualisation is to be built using Tableau. You should build one or two dashboards that tell the story of your data. The type of charts / tables you use is important as some work better than others or some simply make your message clearer.

Using captions, headings and appropriate labels / colour etc. is of paramount importance as it puts your visualisation into context. These contributing elements on the dashboard helps focus your reader’s attention and should increase their understanding of the data visualised.

You should also look to include some of the more advanced features of Tableau such as interactions, parameters, functions, calculated fields etc. This is required as you need to demonstrate your knowledge of Tableau. Implementing these advanced features also shows that you have added a certain level of complexity to your CA since Tableau allows you to create visualisations quite quickly.

The percentage of marks is significant for documentation as you need to show how you analysed, cleaned and formatted your data. It also highlights how you arrived at your conclusions and identified further areas for investigation. The documentation is your way of specifying what you did along the way and therefore is something you should be documenting during the CA as opposed to at the end.

While your initial objective may have changed from the start, your final visualisations, conclusions and areas of further investigation is what the reader will be very interested in and what should make your CA stand out. As you have seen from excellent visualisations previously created, the author places great importance on aesthetics and making the visualisations / story interesting.

You cannot use Tableau Datasets for your CA.

## Deliverables

A zip file should be uploaded to Moodle, which contains the entire contents of your CA. This should include at least the following:

1. Word document
2. Datasets acquired and a separate tab demonstrating some of the seven stages
3. Datasets that were imported into Tableau
4. Tableau file

You must ensure that your zipped file contains all these files and your visualisations work. Failing to do this will mean your CA will incur a 10% penalty as it dramatically slows down results being published.

## Important notes

College rules apply regarding plagiarism. Late submissions will incur a penalty per day as outlined by the college regulations.