University of Westminster
School of Electronics and Computer Science

7BUIS025W Web and Social Media Analytics Assessment Specification (2022/23)	
Module leader	Philip Worrall
Units	Social Media Coursework– Individual - CW1
Weighting:	60%
Qualifying mark	40%
Description	Social media modelling and analytics
Covered Learning Outcomes	LO4 - Collect and prepare a social media data set for analytical processing, including user of social media APIs, data cleansing, mapping, and pre-processing. LO5 - Construct and critique a semantic model of a social media conversation for the purpose of assessing consumer opinion to inform product and or marketing decisions.
Handed Out:	**5.30pm Thursday 30th March 2023**
Due Dates	**1pm Tuesday 2nd May 2023**
Expected deliverables	Single electronic file containing coursework answers (in either PDF of DOCX format)
Method of Submission:	Electronic submission on BB via a provided link in the assessment folder.
Type of Feedback and Due Date:	Written feedback on the submission will be provided within 3 weeks after the submission (the mark and comments via BB Rubric). All marks remain provisional until formally agreed by an Assessment Board.
BCS Criteria meeting in this assignment	2.1.1 & 2.1.2 Knowledge and understanding of facts, concepts, principles theories 2.1.2 Use of such knowledge in modelling and design 2.2.2 Evaluate systems in terms of quality and trade-offs 2.2.4 Deploy tools effectively 2.3.2 Development of general transferable skills 3.1.1 Demonstrate a systematic understanding of the knowledge of the domain of their programme of study. 3.2.2 Defining problems, managing design process, and evaluating outcomes 4.1.1 Knowledge and understanding of scientific and engineering principles

Assessment regulations

Refer to Part 3: Assessment regulations for taught courses of the guide for postgraduate students for a clarification of how you are assessed, penalties and late submissions, what constitutes plagiarism etc.

https://www.westminster.ac.uk/sites/default/public-files/general-documents/handbook-of-academic-regulations-2020.pdf

Penalty for Late Submission

If you submit your coursework late but within 24 hours or one working day of the specified deadline, 10 marks will be deducted from the final mark, as a penalty for late submission, except for work which obtains a mark in the range 50 – 59%, in which case the mark will be capped at the pass mark (50%). If you submit your coursework more than 24 hours or more than one working day after the specified deadline you will be given a mark of zero for the work in question unless a claim of Mitigating Circumstances has been submitted and accepted as valid.

It is recognised that on occasion, illness or a personal crisis can mean that you fail to submit a piece of work on time. In such cases you must inform the Campus Office in writing on a mitigating circumstances form, giving the reason for your late or non-submission. You must provide relevant documentary evidence with the form. This information will be reported to the relevant Assessment Board that will decide whether the mark of zero shall stand. For more detailed information regarding University Assessment Regulations, please refer to the following website: https://www.westminster.ac.uk/current-students/guides-and-policies/academic-matters/academic-regulations.

Social Media Coursework

OVERVIEW

During the semester we have discussed a range of practical applications of social media modelling.

In this coursework assignment, you are tasked with using social media data to **conduct an analysis** of publicly listed company. Your analysis should be submitted in the **form of a report** that documents the process you followed and your findings. Your report should provide relevant insight for the company in question and **demonstrate** your ability to apply the social media modelling process.

This coursework must be completed **INDIVIDUALLY**. The total number of marks available is 100 and the assessment carries **60%** of the total marks for this module.

COURSEWORK SUBMISSION

You are required to submit your answers to this coursework via Blackboard on or before **1pm Tuesday 2nd May 2023**. Your submission should be in either PDF of Microsoft Word (.doc/.docx) format. The maximum word count for this coursework is **5000** words (not including tables or figures). Any submissions that exceed this limit by more than 10% will be subject to a mark penalty of 10%.

The first page of your submission should consist of a front cover, including: your name, student ID, the module code, title of this module and a word count. Otherwise, your name and student ID should not appear anywhere else on your submission.

COURSEWORK DESCRIPTION

Choose a publicly listed company for your case-study. This can be any company (in the UK or elsewhere) who shares are available to purchase on public stock exchanges.

Once you have chosen your company you **SHOULD**:

1. **Gather basic information about the company** - This could include number of employees, countries it operates in, recent financial performance and the names of products or services that it offers.
2. **Prepare a social media dataset** – Use your understanding of social media sites to collect and prepare a relevant social media dataset. Your dataset should include comments or posts about the company or its products. Apply any pre-processing steps you believe are relevant and prepare your data for further analysis.
3. **Conduct Exploratory analysis** – Carry out an exploratory analysis of your data. Identify popular words or phrases and trends. Highlight any words or phrases that are associated with products or services the company offers. Your exploratory analysis should include tables and charts to help you visualise your data.
4. **Develop a Topic Model** – Apply a suitable topic model to your dataset and identify important discussion themes, issues or areas of conversation related to your company. Determine the volume of posts/or comments associated with each topic.
5. **Conduct a Sentiment Analysis** – Determine how users feel towards the company, its products or business practice. What emotions do people express towards the company?
6. **Write a report detailing your process and evaluate your findings.**

YOUR REPORT

Write a report detailing the analysis you have carried out and the results obtained. The report should **NOT** exceed 5000 words. A suggested word count is between 2000-3000 words.

Your report **MUST** include the following sections:

- **COMPANY BACKGROUND –** Detailing the company you have selected for your case study and any background or contextual information you believe is relevant to your analysis.
- **DATA COLLECTION** – Describing, in detail, the steps you followed to collect and prepare your dataset for analysis. You should include details of any data cleaning or pre-processing that was undertaken and discuss their impact.

- **EXPLORATORY ANALYSIS –** Present and evaluate findings of your initial exploratory data analysis. Critically evaluate and reflect on the methods you used and provide interpretation of the results. In this section you should include any visualisations you feel are relevant to highlight important features of your dataset.
- **TOPIC MODEL ANALYSIS** – Describe the steps you took to develop and apply a suitable topic model to your dataset. Critically evaluate the use of topic modelling to generate insight and provide interpretation of the results.
- **SENTIMENT ANALYSIS** – Document the steps taken to identify the sentiment or emotion expressed towards the company or its products and services. Discuss the role of sentiment analysis in social media modelling and provide a critical evaluation of your findings.
- **CONCLUSION –** In this section you should summarise the main findings of your analysis. You should provide a critical evaluation of your approach, identifying aspects of your analysis which could be improved or developed further.

[100 Marks]

FREQUENTLY ASKED QUESTIONS:

Do I need to submit the code developed as part of my report?

No, you are not required to upload all your code. Instead, you should submit annotated screenshots of important sections of code that you have written as part of your report. Especially when asked to document or describe steps that you have taken.

Can more than one person use the same company as their case study?

Yes, but this coursework must be completed individually. We would take care to affirm that each student submitted original work and remind you that the standard university regulations for assessments apply.

How many social media data posts do I need to collect?

It is expected that between 500-2000 social media posts or comments will be required to produce reliable insight.

Assuming my chosen company provides a range of products and or services, can my analysis focus on just one product or service?

Yes, this is perfectly acceptable provided that there is some rational basis or reasonable justification for doing so.

7BUIS025W – SOCIAL MEDIA COURSEWORK - MARKING SCHEME

NOTE: *Marks will be allocated in relation to the correctness, completeness, and the quality of the answer provided.*

Criteria	Mark Per Component	Mark Provided	Comments
SUBMITTED REPORT	**100 marks**		
COMPANY BACKGROUND			
• Suitable company selected **(1 mark)** • Overview of the company and its products or services **(2 marks)** • Relevant facts about the company **(2 marks)**	5		
DATA COLLECTION			
• Details of keywords or search terms used **(3 marks)** • Justification of approach taken **(3 marks)** • Documentation of the steps followed to collect SM data, including annotation of any code developed **(4 marks)** • Data spans appropriate 7-day period **(1 mark)** • Evidence that relevant pre-processing steps have been applied **(2 marks)** with appropriate justification **(2 marks)**	15		
EXPLORATORY ANALYSIS	15		
• Documentation or annotated screenshots detailing the approach taken **(3 marks)** • Appropriate visualisations illustrating key features of the data **(3 marks)** • Critical evaluation of the methods employed **(4 marks)**			

• Reflection on initial results and discussion of findings **(5 marks)**			
TOPIC MODEL ANALSIS			
• Appropriate documentation of methodology used to conduct the analysis, including annotated screenshots of any code developed **(6 marks)** • Presentation of results, including suitable visualisations and a table of the distribution of comments over topics **(6 marks)** • Evaluation of goodness of fit and other diagnostic indicators **(4 marks)** • Interpretation of results and discussion of findings **(4 marks)** • Critical evaluation of approach taken **(5 marks)**	25		
SENTIMENT ANALYSIS			
• Reflection on the role of sentiment analysis in social media modelling **(2 marks)** • Appropriate documentation of methodology used to conduct the sentiment analysis, including annotated screenshots of any code developed **(6 marks)** • Presentation of results, including appropriate visualisations **(4 marks)** • Evaluation of goodness of fit and other diagnostic indicators **(4 marks)** • Interpretation of results and discussion of findings **(4 marks)** • Critical evaluation of used methods and techniques **(5 marks)**	25		
CONCLUSION			
• Clear and concise communication of key results **(4 marks)** • Critical evaluation of the adopted approach **(5 marks)**	15		

• Intuitive explanation of the results in the context of the company used as the case-study **(3 marks)** • Identification of potential next steps and avenues for future work **(3 marks)**			

PENALTY FOR EXCEEDING WORD COUNT

Up to 10 marks

END