Module Code:	**7BUIS025W**
Module Title:	**Web and Social Media Analytics**
Academic Year:	**2020-2021**
Semester:	**2ⁿᵈ**
Module Leader:	**Dr Philip Worrall**

Coursework: Social Media Assignment

Coursework administration

Handed out:	**6pm Wednesday 24th March 2021**
Deadline:	**1pm Monday 10ᵗʰ May 2021**
Assessment weighting:	60% of total module weighting
Coursework submission:	Electronic submission via Blackboard *Read carefully the instructions at the end of this coursework.*
Feedback to students:	By 31st May 2021 (within **15 working days** of the submission deadline)
Type of feedback:	Students will receive feedback in the form of written comments about their submission. **All marks will remain provisional until formally agreed by an Assessment Board**.
Assessment type:	**Individual**
Word limit:	5000 words <u>maximum</u> (not including appendices)

Learning Objectives addressed by this coursework

LO4   Construct and critique a semantic model of a social media conversation for the purpose of deducing user opinion, collecting feedback and using it to inform product and or marketing decisions.

LO5   Produce a report that comprehensively evaluates an individual's/organisation's current social media position.

OVERVIEW

During the lectures and tutorials, we have discussed the role of social media and some of the techniques and tools both individuals and organisations can use to analyse and interpret social media data. The aim of this coursework is therefore to assess your ability to collect social media data, prepare social media data for analysis and use relevant tools and techniques to extract useful insight.

The coursework consists of a series of 7 questions based around a common topic. You are required to provide answers to **ALL** questions and this coursework must be completed **_INDIVIDUALLY_**. The number of marks available for each question is provided in the right-hand margin. The total number of marks available is **100**. This 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** on **Monday 10th of May 2021**. Your submission should be in either PDF of Microsoft Word (.doc/.docx) format. The word limit for this coursework is 5000 words (**not including graphs, tables and figures**)

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.

QUESTIONS

Celebrities, sports stars, musicians and many businesses use social media to promote their online presence.

As part of this coursework you will pick an established **brand, or famous person**, with a significant social media presence. You will then perform an analysis of the conversational data collected related to your chosen brand or famous person via the Twitter social media platform.

1. Identify a brand or famous person of interest and create a list of 5 possible keywords you could use to identify relevant tweets from Twitter.

   In your answer you **SHOULD** justify your chosen brand or famous person and demonstrate that there is enough conversational data available to perform further analysis.

   [5 Marks]

2. Explain what is meant by an API and compare and contrast the two data collection APIs available on the Twitter platform.

   [8 Marks]

3. Using your suggested keywords from part a) and your knowledge of Twitter, collect a series of Tweets surrounding your chosen brand/famous person and save them to a file. Your collected Tweets should span a minimum **ONE** week period.

   In your answer you **MUST** provide evidence of how your data was collected (screenshots, code print outs with relevant comments), the total number of tweets collected and describe key methodological steps.

   [12 Marks]

4. Using a suitable example, discuss the role of text pre-processing in the context of social media analysis. Identify **TWO** pre-processing steps relevant to the dataset you created in part c) and apply them to your dataset.

In your answer you **MUST** detail the code used to perform each pre-processing step and provide evidence that they have been applied.

[14 Marks]

5. Create a Python program to count the most commonly used words in your dataset and use it to generate a "word cloud".

In your answer you **MUST** include a table of the top 10 most commonly used words, your Python code and a screenshot of your word cloud.

[6 Marks]

6. Use your processed data file to produce a series of graphs or charts to summarise the following information.

   I.   The number of tweets posted per day
   II.   The number of unique users per day
   III. The top 10 most active users over the entire period

In your answer you **MUST** detail your processing steps and comment on the results.

[12 Marks]

7. Using a suitable approach, construct a LDA topic model to identify themes of discussion within your dataset.

   In your answer you **MUST**;
   - Discuss what is meant by topic modelling and explain how your chosen approach works
   - Provide details of the steps that you have carried out.
   - Use any tables, graphs and charts you feel are necessary to illustrate your findings
   - Provide a critical evaluation of your model and discuss one strength and one weakness

[21 Marks]

8. Apply noun phrase recognition to your dataset and identify the top five most mentioned noun phrases.

   Construct a sentiment model for each of your identified noun phrases and compare and contrast the differences in both polarity and sentiment.

   In your answer you **MUST**;
   - Discuss what is meant by sentiment modelling
   - Provide details of the steps that you have carried out to build and evaluate your models.
   - Use any tables, graphs and charts you feel are necessary to illustrate your findings
   - Provide a critical evaluation of your models and discuss one strength and one weakness

[22 Marks]

INSTRUCTIONS

➢ The work you submit must be in one of the acceptable file formats below: .doc; .docx; .pdf.

➢ **Marking** will be based on the quality, novelty and completeness of your answers with reference to the coursework's specific **learning objectives**.

➢ Recommended Font: Arial- 12

➢ If you need to **reference** your work **– ISLS Guide:** http://home.wmin.ac.uk/library/documents/Referencing-your-work.pdf

➢ **Plagiarism** is considered cheating, as you have taken the words or ideas of other people and passed them off as your own. The University takes cases of plagiarism very seriously. If you are caught plagiarising you will face disciplinary procedures which could ultimately result in your expulsion. Please refer to the Student Handbook for a clarification of what constitutes plagiarism.

➢ **Electronic Submission of Coursework (how)**

All coursework on this module is submitted via Blackboard only. It will automatically be scanned through a text matching system (designed to check for possible plagiarism). The system used is Turnitin.

• You DO NOT need to attach a copy of the CA1 form;

• You DO need to include your name, student ID, title of this module, module code and word count on the cover page of your submission.

• EXCEPT for the front cover, your name and details should NOT be written on any other page of your report.

To submit your assignment:

o Log on to Blackboard at http://learning.westminster.ac.uk;

o Go to the relevant module Blackboard site;

o Click on the Coursework submission link on the left-hand side as advised by the module leader;

o Click on the link to the relevant assignment;

o Follow the 'upload' and 'submit' instructions

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➤ **Late Submission**

If you are unable to submit your work due to a finance hold you must email your work to ecs-registry@westminster.ac.uk by the same deadline, putting on the subject line the module code, assessment number, and your name. This shows that you have completed your work by the deadline. After the finance hold is lifted you must then submit the same work as normal on Blackboard, otherwise it will not be marked and you will get a fail for that assessment.

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 40 – 49%, in which case the mark will be capped at the pass mark (40%). 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:

http://www.westminster.ac.uk/study/current-students/resources/academic-regulations

EXAMPLE FRONT PAGE COVER:

Name: Your Full Name
Student ID: w1234567

7BUIS025W
Web and Social Media Analytics

Coursework: Social Media Assignment (2020/21)

WORD COUNT: 4829