ECS406U Creative Assignment 2020-21

Concept: changing world which reflects your data
A user should be able to explore your data in an evolving, screen world. Your data could be the focus or it could be used to e.g. change the weather, decoration, flora, fauna etc. The user has to be able to explore through time, forwards and backwards.
This is intended to be a more visually striking response to e.g. apps/systems that document user data, more closer to playful worlds while still potentially using some of the aims of information visualisations.

For example if you collect the different drinks each day this could be reflected in the drinks on a table, or plants growing (to supply the drinks), or colours of objects for that day, week etc. If you gather data about your photo calls this could be reflected in character interaction, messages on signs, height of trees etc.
The aim is to consider how users data could potentially be integrated into evolving worlds (for playful pieces or games) and/or to rethink how timelines are presented.

This is not a pragmatic/information visualisation

The Creative Assignment is worth **60%** of the module, with two submissions

1. Early stage submission, Ideation (Creative Assignment part 1): **Friday 20 November 2020** (week 9) – **worth 30%**
Online submission (zip folder) to QMPlus **no later than 10am**
Note the max total submission size of 50MB

2. Final submission, Design (Creative Assignment part 2): **Tuesday 5 January 2021** – **worth 30%**
Online submission (zip folder) QMPlus **no later than 10am**
Note the max total submission size of 50MB

The aim of this assignment is to develop the initial steps of a **visually engaging computer world**, from ideas that could be pitched to a client (submission 1) to 'attract mode' (submission 2). These mirror the early stages of the production pipeline in the creative digital industries e.g. the games industry.
A final playable/playful piece is outside the scope of this assignment.

For this assignment you have to collect personal data over time – start with at least two possible themes. This needs to be collected over several weeks e.g. until the end of the semester so it needs to be feasible/scalable etc. The following data sources are not allowed as your key theme (i.e. these could be used to supplement other data). Note the list is not exhaustive but the aim is to perform manual data gathering not just use data that has been captured by an app, such as:

- taxi travel (e.g. Uber) journeys (captured using e.g. Uber app)
- tube journeys (e.g. captured using Oyster card)
- phone data (unless used to supplement another theme)
- music listening captured on an app (e.g. Spotify)
- social media likes etc.
- health data captured by an app
- steps (e.g. fitbit)

Students must present their data choice/s in the week 5 lab session

Data/information visualisation is a growing design field (roles include information designers, data designers) and the role of data scientists is increasingly important due to the amount of data that is now being captured. While users may be aware of the data that they provide to companies, either through filling in forms, posting text or images on social media applications etc., they may be less aware of the use metadata (data exhaust) that is being generated. This metadata records e.g. date/time of each post/phone call, connections, their connections, likes, pages visited, time spent viewing a page, links etc, i.e. this information is generated out of your day-to-day activities by another party/system. All this is being mined and monetised by other organisations, providing new services, or targeted/personalised offerings, but this also raises privacy concerns etc.

Part 1, Ideation submission: pitch **[with approximate marks]**

A. **Influences** – your record of visual engagement. Not just photos e.g. of objects in galleries, street scenes, photos etc. but your notes and observations about these **[8 marks]**

Gather material from the world around you – billboards, images in magazines/newspapers /social media, photos of your surroundings – as well as those from art galleries, museums (including the ECS406U trips) etc. Use these to understand how you respond to images – shapes, shadows, colours, textures etc. – aesthetically, emotionally, intellectually. Document this on your **QMPlus Hub page**. When you take photos record this, e.g. make notes in a small notebook/sketchpad of the date, time, lighting conditions, note why you took the photo etc. (as this detail should also be added to your Hub page). This should be ongoing work, not photos from the past and not all uploaded just before the deadline. Ensure you share your QMPlus Hub page with Karen before the deadline – see end of this document

B. **Evaluation of at least 3 data visualisations** (or data art pieces) that relate to the brief. How might these inform your work? **[6 marks]**

Look at the references from the Data Visualisation lecture. When you document a visualisation **use Cairo's visualization wheel** to understand how other visualisations are formed/focussed. Do not use examples from the Cairo book or in the lecture slides in your documentation – find visualisations from other sources that are relevant for <u>your</u> project (not simply visualisations you find attractive). You should NOT copy other visualisations in your final design (that would constitute plagiarism or theft). State how this might informs your work – ideally at least one visualisation should relate to the themes you are exploring Any images pasted into this file should first be saved as e.g. jpeg NOT bitmaps – this means you will need to convert screenshots – to ensure the file size stays relatively small.

C. **Data gathering** – identifying possible data. Initially explore a few ideas and assess both feasibility (how will you record these accurately/consistently?) and for how they could contribute to the assignment. The data must be gathered over an extended period of time (at least four weeks by the first submission, over more weeks for the final one). **[6 marks]**

This could be e.g. "data exhaust", i.e. information that is generated out of your day-to-day behaviour. Or this could be data that you deliberately choose to collect. The key is that

this is data collected by you, relating to your behaviour/observations, **over an extended period of time**
Initially do not just commit to one idea.
You will lose marks if you only present one data set, or if you do not **explore** at least two collections of your data in depth.
Both data sets must have a manual gathering element (see earlier about not just harvesting data using apps)
Choosing a very small data set will impact your final mark, as this limits the exploratory power of your work.
After exploration, decide which will be the dataset to follow in your pitch.

Useful Steps (from the Dear Data book)

- Begin with a question: start with a primary question and enrich the data by asking additional, smaller, contextual questions
- Gather the data
- Spend time with the data: search for patterns; try to understand it at a deeper level

D. **Short pitch**: **record a maximum 2 minute pitch**, using approximately 3 slides, of the world you will develop for this project (just show the slides in the video). At this point you do not know what it will look like, nor will you have started design and implementation details. But you should present the story behind the piece: the world where the data will be presented/explored, why the data maps well to the world, how the user will move from one day to the next, forwards and backwards (how many days in one view?) etc. You may need to compress the video so that the entire submission is no larger than 50MB (limit for QMPlus submissions) **[10 marks]**

You could read:
https://training.npr.org/audio/what-makes-a-good-pitch-npr-editors-weigh-in/

http://torgronsund.com/2011/11/29/7-proven-templates-for-creating-value-propositions-that-work/

There should be a relationship between all four parts of this assignment

Submission:

- influences portfolio in QMPlus Hub (share this with karen);
- zip (max 50MB) submitted to QMPlus containing:
    - data (spreadsheet or scan/photo of data collected on paper);
    - file (doc/docx/pdf/pages) with evaluation of visualisations;
    - video presentation

Do not submit at the last minute as you need to ensure that the zip folder (not .gz .tar etc.) containing potentially two large files – a document with images plus a video – is less than 50MB. Late submission as a result of file size will be subject to lateness penalties

Part 2: attract mode **[with approximate marks]**

This must develop the world from the pitch with the same dataset from part 1 (unless feedback from the first submission indicates otherwise).

Before starting, review your part 1 feedback

A. **Design [10 marks]**

This should include sketches, screenshots, mood boards and storyboards. You need to explore a range of visual elements (graphical forms) that could represent every data element, and evaluate decisions. You will need to review some of your earlier decisions

This should be an **iterative/prototyping process** – do not just present one finished design.

What
What is the high concept?
Can you capture it in two sentences or less?
How
What are the key interactions?
What are the magic moments?
Why
Why does this respond to the brief?
Style
How does it look, sound and feel?
Who are its key influences?

Useful Steps (from the Dear Data book)

- Visualise inspiration to build your personal vocabulary*: 'lose yourself in images'
- Sketch and experiment: form, colour, materials in a freehand fashion to create the visual elements (graphical forms) to represent every data element

* the visualisation process can be described as building a "graphical grammar"

B. **Prototype: attract mode [10 marks]**

This is not a final implementation, but a combination of more polished work developing decisions from the design stage, plus work that shows possible interaction, movement or transition to one step, e.g. using a tiny tool such as flatpack (see below) or animated gifs. In industry this is where teams show how they've developed the initials ideas from the pitch to more refined design concepts, plus an indication of what will be implemented.

This could be a mixture of hand drawn work (scan/jpg) or using appropriate software (Microsoft office, Photoshop…also see this list of free tools and the list at the end of this document) for the graphics/maps/diagrams etc.

Development should be iterative. One way this is sometimes explained is that in order to develop the equivalent of a racing car for a client you first implement a skateboard, then a bicycle etc. In attract mode you are developing the equivalent of the skateboard.

C. **Critical evaluation [10 marks]**

Written evaluation of your work (at all stages). This should be a (very) critical evaluation of decisions made, how to improve the work NOT a review of 'success' or of your personal learning experience. Ensure the register is correct – this is a technical report not a diary. For

example “As part of the process I learned that..” sounds like a personal learning journey/journal and not an evaluation of the project.

This relates to the plus/delta analysis performed in industry: positive (negative), what to do next. It is vital, especially for future work outside university, that students, can identify where their work could be challenged.

Submission:

- zip containing:
  - design document
  - prototype document
  - evaluation document

average marks for submission #2 A Design: 6.6/10 (2018/19) B Prototype: **4.6**/10 (2018/19); **5.6**/10 (2019/20) C Critical Evaluation: **5.5**/10 (2018/19), 6.3/10 (2019/20) Note: several students then had lateness penalties applied to these marks (5% per day) resulting in much lower marks

Useful sites:

- http://www.dear-data.com/theproject
- http://giorgialupi.com/work
- http://www.stefanieposavec.com/
- https://flowingdata.com/category/visualization/artistic-visualization/
- “The Functional Art” by Alberto Cairo (covered in the ECS406U lectures, including videos; e-book from the QMUL library)
- http://www.informationisbeautiful.net/
- (*less vital to read*) Casual information visualisation: https://www.cc.gatech.edu/~stasko/papers/infovis07-casual.pdf
  [more correct way to reference: Pousman, Z., Stasko, J., Mateas, M.: Casual information visualization: Depictions of data in everyday life. IEEE Transactions on Visualization and Computer Graphics 13(6), 1145–1152 (2007)]

QMPlus Hub

Students are expected to set up a page on the QMPlus Hub and share this with Karen (karen.shoop@qmul.ac.uk).
See:
https://elearning.qmul.ac.uk/guide/groups-portfolios-creating-a-page/
http://hub.qmplus.qmul.ac.uk/view/view.php?id=88960

Start to populate your QMPlus Hub page with a journal, uploading images etc. This forms the repository of your evidence, data etc. for your assignment. This is intended to ensure there is ongoing engagement with this assignment, not last-minute work around a deadline, and this will be reflected in the marking.