RESEARCH JOURNAL — COMPUTING

Version 1.0
BSc Computing for Games

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Introduction

In this assignment, you will produce a journal detailing your research on the principles of computing. In addition to your individual journal, as a group you will create a community wiki to collect and discuss your findings.

Familiarity with the scientific literature is extremely helpful for the computing professional, both to understand the seminal works that lay the foundations of the field, and to keep abreast of recent developments at the cutting edge. Games technology is a fast-moving field, and keeping up is important. However scientific papers are written in a way that is sometimes daunting to newcomers, so it is essential to practice the skill of reading and comprehending such papers. Keeping a research journal is a useful way to record your thoughts (questions, hypotheses, connections, ideas, ...) as you explore the literature.

"Individuals and Interactions over Processes and Tools"

"Working Software over Comprehensive Documentation"

"Customer Collaboration over Contract Negotiation"

"Responding to Change over Following a Plan"

— Agile Manifesto

This assignment is formed of several parts:

(A) **Read** at least **six** papers from the scientific literature on computing.
(B) **Write** a draft research journal that will:
  (i) **summarise** your thoughts on each paper;
  (ii) **synthesise** what you have read into a cohesive whole.
(C) **Write** the final version of your research journal that will:
  (i) **revise** any issues raised by your tutor and/or your peers.
(D) **Edit** the community wiki to:
  (i) **share** your findings on what you have read;
  (ii) **debate** your findings with your peers.
(E) **Discuss** your research journal with the tutor in the viva session in class.

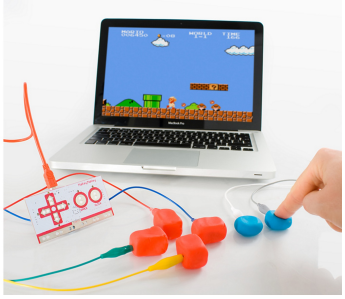
Assignment Setup

This assignment is an **academic writing task** and **wiki task**. Fork the GitHub repository at the following URL:

`https://github.com/Falmouth-Games-Academy/comp110-journal`

Use the existing directory structure and, as required, extend this structure with sub-directories.

Modify the `.gitignore` to the defaults for **TeX**. Please, also ensure that you add editor-specific files and folders to `.gitignore`.



The *MaKey MaKey* allows a multitude of materials to be used to create videogame controllers.

Part A

No separate submission is required for Part A, however it is a prerequisite for completing the other parts.

Part B

Part B consists of **multiple formative submissions**. This work is **individual** and will be assessed on a **threshold** basis.

To complete Part B, write your research journal. It is recommended that you write your journal entry in the `readme.md` file within your forked repository, but you may use LaTeX if you prefer. Commit your work to your GitHub repository to be signed off during personal tutor meetings, at least once every three weeks during semester 1.

You will receive **immediate informal feedback**.

Part C

Part C is a **single summative submission**. This work is **individual** and will be assessed on a **criterion-referenced** basis using the criteria listed in the marking rubric at the end of this document.

To complete Part C, revise your report from Part B to take into account any feedback you have received so far.

Compress your `readme.md` file, along with any required images or other external files, into a `.zip` file and upload it to LearningSpace. Alternatively, if you have used LaTeX, upload a `.pdf` file of your journal to LearningSpace. Note that LearningSpace will only accept a single `.zip` or `.pdf` file.

You will receive **formal feedback** three weeks after the final deadline.

Part D

Part D consists of **multiple formative submissions**. This work is **individual**, but with a **group-based** component, and will be assessed on a **criterion-referenced** basis. The criterion used to assess this part relates to the quantity and quality of your contributions.

To complete Part D, contribute to the wiki at the following URL:

`https://github.com/Falmouth-Games-Academy/comp110-journal/wiki`

Please ensure that you are editing the wiki for the `Falmouth-Games-Academy` repository, and **not** the wiki for your fork of the repository. The nature of your contribution to the wiki is up to you, and students are expected to direct themselves and their peers in making the wiki a useful and academically sound resource for themselves.

During your personal tutor meetings, make your tutor aware of your contributions to the wiki.

You will receive **immediate informal feedback** as well as **ongoing peer feedback**.

Part E

Part E consists of a **single formative submission**. This work is **individual** and will be assessed on a **threshold** basis.

To complete Part E, bring the final version of your research journal to the viva session in class. Be ready to discuss your work with your tutor.

You will receive **immediate informal feedback**.

Additional Guidance

One paper will be suggested in class every two weeks; this is the bare minimum that you should read. You should also follow up some of the prior work referenced in these papers, as well as subsequent work that references them. As much as possible you should focus your reading on peer-reviewed scholarly sources reporting primary research: articles in scientific workshops, conferences, journals, and some books or book chapters. Other sources tend to be less rigorous, and should be used only for background information or in cases where their use can be convincingly justified.

A common pitfall is to focus too much on summarising the content of the papers you have read. For higher marks you need to demonstrate **insight** into what you have read: forming inferences and analyses beyond what is written in the paper. A related pitfall is to structure the journal simply as a disconnected sequence of paper summaries. Instead aim to **synthesise** multiple papers into a cohesive whole, drawing connections between works by different authors.

How you structure your research journal is up to you: ultimately it is a tool for you to document your research in whatever way is most helpful for you. However you may wish to start by summarising the content of the paper, and then considering some of the following questions: What does the paper contribute to the field of computing? Why is it significant and/or influential? Why did the researchers choose the approach that they did? Is there anything that you did not understand? Is there anything counterintuitive or surprising in the paper? Do you disagree with any of the assumptions or claims it makes? Does the paper suggest any further research questions? How does the paper support or contradict other papers you have read? You do not necessarily need to address all of these questions for every paper you read, nor is this an exhaustive list.

FAQ

- **What is the deadline for this assignment?**
  Falmouth University policy states that deadlines must only be specified on LearningSpace. Please examine the assignment area where you located this document.
- **What should I do to seek help?**
  You can email your tutor for informal clarifications. For informal feedback, make a pull request on GitHub.
- **Is this a mistake?**
  If you have discovered an issue with the brief itself, the source files are available at:
  `https://github.com/Falmouth-Games-Academy/bsc-assignment-briefs`.
  Please make a pull request and comment accordingly.

Additional Resources

- Keith, C. (2010) Agile Game Development with Scrum. Pearson Education.
- http://agilemanifesto.org/

Marking Rubric

Criterion	Weight	Refer for Resubmission	Basic Competency	Basic Proficiency	Novice Competency	Novice Proficiency	Professional Competency
Participation in viva	Threshold 10%	The student did not participate in the viva, or did not submit sufficient work to discuss in the viva.					The student participated in the viva.
Breadth of reading	15%	Fewer than the six suggested articles are referenced.	All six of the suggested articles are referenced.	All six of the suggested articles are referenced. A further six sources are also referenced.	All six of the suggested articles are referenced. A further 12 scholarly articles are also referenced.	All six of the suggested articles are referenced. A further 18 scholarly articles are also referenced.	All six of the suggested articles are referenced. A further 24 scholarly articles are also referenced.
Depth of insight	20%	No insight is demonstrated. Papers are merely paraphrased.	Little insight is demonstrated. Papers are summarised in the student's own words.	Some insight is demonstrated. Discussion attempts to make inferences.	Much insight is demonstrated. Discussion makes inferences, some of which show attempts at analysis.	Considerable insight is demonstrated. Discussion is analytical in nature.	Significant insight is demonstrated. Discussion is analytical and evaluative in nature.
Specificity, verifiability & accuracy of claims	10%	No citations to evidence to claims. Substantial errors and/or misinterpretations.	Few claims have a clear source of evidence. Significant errors and/or misinterpretations.	Some claims have a clear source of evidence. Many errors and/or misinterpretations.	Many claims have a clear source of evidence. Some errors and/or misinterpretations.	Most claims have a clear source of evidence. Few errors and/or misinterpretations.	All claims have a clear source of evidence. Almost no errors and/or misinterpretations.
Synthesis	20%	No connections are made between different sources.	Superficial connections are made between different sources.	Basic connections are made between different sources.	Reasonable connections are made between different sources. Some connections demonstrate an attempt at inference or analysis.	Strong connections are made between different sources. Many connections are analytical in nature.	Strong connections are made between different sources. Most connections are analytical and evaluative in nature.
Community engagement	15%	No contribution has been made to the wiki.	A few minor contributions have been made to the wiki.	Some contributions have been made to the wiki. The student has made some attempt to engage in community discussion.	Many contributions have been made to the wiki. Contributions are well-reasoned. The student has actively engaged in the community discussion.	A significant number of contributions have been made to the wiki. Contributions are well-reasoned and academically sound. The student has participated in steering the community discussion.	An extensive number of contributions have been made to the wiki. Contributions are well-reasoned and academically sound. The student has played a key role in driving the community discussion.
Appropriateness of spelling & grammar	5%	Substantial spelling and/or grammar errors.	Many spelling and/or grammar errors.	Some spelling and/or grammar errors.	Few spelling and/or grammar errors.	Almost no spelling and/or grammar errors.	No spelling or grammar errors.
Appropriateness of journal structure	5%	There is no structure, or the structure is unclear.	There is little structure.	There is some structure. A few sentences and paragraphs are well constructed.	There is much structure. Some sentences and paragraphs are well constructed.	There is much structure, highlighting the key themes. Most sentences and paragraphs are well constructed.	There is much structure, highlighting the key themes. All sentences and paragraphs are well constructed.