475 : Software Engineering for Industry - Main Coursework

Final Assessment (to be done in groups of 3)

This coursework forms the exam for this course. It asks you to show what you have learned from the course, and also your own thoughts and reflections, by investigating how the material we have covered is applied in real industrial software projects.

The Task

Do some research into how a company (of your choice) does software engineering - or more than one company if you want to draw comparisons. Write an article that describes aspects of the company's software lifecycle (e.g. from idea to release and ongoing development/operation) and relate it back to ideas presented in the course - either talking about where ideas we have presented might plug gaps in the company's approach, or where the company has an alternative approach, does not need, or surpasses ideas we have discussed.

Try to draw together some of the themes of the course, putting them into the context of industrial software engineering. Reflect on the new knowledge, tools and techniques that you have learned about in the lectures, discussions and exercises. Connect them to your case study, and also to your own experiences. You may want to talk to people working at the company you are investigating (perhaps somewhere you have worked before, somewhere you have contacts, or somewhere that you are interested in finding out more about) and also to refer to other materials that you have read online, or in books or articles. You should reflect on where the techniques your are discussing are useful, and where not. You are encouraged to give opinions based on evidence of real projects and other writings, rather than abstract statements.

It should be a technical article, but aim to make it the sort of thing that an industrial software engineer would be interested to read. Not all of the forces at play are purely technical, think about the business context too.

Some things to think about:

What were the key themes and topics from the course?

What were the most interesting papers, articles, books etc that you read related to these? What did you learn from the panellists and your colleagues in the discussion sessions? What were your opinions on these new ideas? Can you find further industrial evidence to back up these opinions?

What problems did you work through in the weekly exercises? What did you learn from them? What discussions did you have with the lecturers, tutorial assistants and your colleagues? What projects have you worked on before that were affected by issues raised in the course?

Deadline: Fri 8th March 2019, 7pm.

Submit your article as a pdf file (`article.pdf`) electronically via CATE. Late submissions will only be accepted with a medical certificate.

Word Limit: Your article must not exceed 2500 words. No cover or contents pages please.

Advice:

Do not try to include all of the topics from the course - that will likely lead to a confused article. Pick a few topics that you think fit together well (either supporting or contrasting with one another).

Remember that most of the learning in the course comes from the exercises, discussions and your own research. Investigate how these insights apply in an industrial context.

Pay attention to the quality of the writing. There are marks for how clearly you express your ideas. Take care over how you present and structure your article.

Credit will also be given for evidence of original journalism. Did you attempt to go to the source? Perhaps you could get some quotes from a well known expert. At the very least, perhaps you can develop your own distinctive take or angle on the story.

Reference sources properly when talking about people you have spoken to, or books, papers, articles etc that you have read. This webpage has some guidance if you are unsure about referencing: http:// www.bournemouth.ac.uk/library/how-to/citing-refs-harvard.html

What makes a good article?

A good article will:

- explain what you think the important issues in industrial software engineering are, and why.
- demonstrate that you have researched real case studies.
- demonstrate that you have read further materials connected to the topic presented.
- give specific references to articles or book chapters that you have read
- give your opinion on what you have read, connecting it to the course material and your case study.
- give examples from real companies doing software engineering
- tell a story
- have a point of view
- present a consistent argument
- be interesting!

What does *interesting* mean?

Journalistic articles may be interesting for many different reasons, but some factors that may be worth considering are: timeliness, magnitude, relevance, something counterintuitive / unexpected, zeitgeist, controversy, exclusivity. These are just ideas.

Overall we are looking for you to reflect on what you have learned as an aggregate of the lectures, the tutorials, extra reading, connection with past experience, and conversations with friends and colleagues, and to put this in to the context of an industrial case study.

Mark Scheme - for your information, here is a breakdown of how marks are allocated:

Clarity and fluency of writing, how well the author expresses their ideas and puts their point across.	/ 10
Degree to which the author shows a firm and accurate grasp of software engineering concepts covered in the course.	/ 25
Degree to which the author illustrates the practices they describe based on case studies and industrial application.	/ 20
Degree to which the author describes and explains the business context and forces acting on the situation - the *why* as well as the *what*.	/ 20
Degree to which the author shows critical thought and insight based on their investigation.	/ 20
Appropriate references are cited to back up the points being made.	/ 5
Total	**/ 100**