Tutorial 7 – Professionalism in Practice

1. Online safety in School

Safety Plus is an automated Internet content filter designed to help schools block inappropriate content. Safety Plus has a centrally controlled blacklist, which is maintained by purchasing a stoplist from an external company. Over the summer, this producer merged with another company. The new company had a great product, but it was more expensive, so the CIO of Safety Plus asked an in-house development team to automate the identification of inappropriate content using machine learning techniques. There weren't any ML specialists in that team, but the team lead wanted to run the project, so they didn't flag the issue and asked one of the junior developers to do it, as she was a talented programmer and always keen to take on challenges. While making changes, the team combined input from both school and library users to aid in the classification of content. The CIO was pleased with the initial results and decided to deploy the new system. The team lead had concerns that the system hadn't been tested enough, but didn't say anything because he wanted to be promoted. Soon after going live, the team started receiving complaints from schools about climate change content being blocked inappropriately. It seemed that activist groups had exploited the feedback mechanism to corrupt the classification model. The CIO was furious and asked the team lead for an explanation. The team lead blamed the junior developer, saying she had signed it off and clearly wasn't competent. As a result, the CIO sacked the junior developer.

a) Pick one of the 3 professional codes of practice we looked at in the lecture (BCS, ACM or IEEE).
b) Pick out 5 relevant points from the code and use them to identify the responsibilities you would need to consider as a software engineer in this scenario.

2. Car sharing scenario

As a new graduate, you get a job working for a start-up company that has spotted a gap in the market for developing apps for small businesses in the Glasgow area. There is a lot of local business innovation and a need for speedy and competitively priced software and tech maintenance to help new businesses thrive. One of the first projects you work on is a car-sharing app for a start-up wanting to encourage sustainable resource-sharing. The idea is that local members pay a small annual registration fee and then have access to a bank of electric cars that they can hire at a reasonable rate for any amount of time from 1 hour to 2 weeks in hourly/daily increments. The app will need to help members register, log in, select and book cars, change and delete bookings, and make payments.

As a group, read the statements overleaf and fill in the Q-sort grid, finding one space for each statement (this is developed from Schwartz' values model)

1. What statements are most important to your project?
2. Why did you choose them? What agreements and disagreements were there?
3. What statements are least important and why?
4. Did you identify any missing statements? Add them to the side of the grid

It is important to me to be given the freedom to produce new ideas, inventions and creative works 1	It is important to me the software I develop is robustly and usably secure 2	It is important to me to enjoy the process of developing software 3	It is important to me that I do not annoy or upset anyone in the course of my work 4	It is important to me that the public good is the central concern of all professional computing work 5
It is important to me that the software I develop Influences the end user 6	It is important to me that I credit fully the work of others and refrain from taking undue credit 7	It is important to me that I identify and address any environmental issues related to my work 8	It is important to me that my work is respected 9	It is important to me that I am allowed to take risks when developing software 10
It is important to me to improve public awareness and understanding of software 11	It is important to me that the software I develop is commercially successful 12	It is important to me that my workplace promotes my physical safety and psychological well-being 13	It is important to me that I do not discriminate against others when developing software 14	It is important to me that I know and apply industry rules when developing software 15
It is important to me that I make my own decisions when developing software 16	It is important to me that I personally achieve high quality in software design and production 17	It is important to me to uphold, promote and respect the principles of my industry 18	It is important to me to be an honest and trustworthy colleague 19	

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Less Important

More Important

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