Team 28: DocuSign Integration

5 Professionalism

This discussion is with respect to the paper titled " Contextualizing Professionalism in Capstone Projects Using the IDEALS Professional Responsibility Assessment", *International Journal of Engineering Education* Vol. 28, No. 2, pp. 416–424, 2012

5.1 Areas of Responsibility

Pick one of IEEE, ACM, or SE code of ethics. Add a column to Table 1 from the paper corresponding to the society-specific code of ethics selected above. State how it addresses each of the areas of seven professional responsibilities in the table. Briefly describe each entry added to the table in your own words. How does the IEEE, ACM, or SE code of ethics differ from the NSPE version for each area?

We chose the SE code of ethics.

Work Competence: This is covered in Principle 2 of the SE code of ethics, as it promotes honesty about one's limitations and work they can do. Principle 8 (Self) also promotes self improvement and knowledge about an engineer's areas of expertise.

Financial Responsibility: Principle 4 (Judgement) relates to financial responsibility as it talks about professional objectivity, deceptive financial practices, and proper disclosure of billing. Both the SE code and NPSE cite trust and honesty in financial agreements.

Communication Honesty: Principle 7 (Colleagues) and Principle 5 (Management) speak on appropriate interactions between management and developers and in between colleges. Highlighting the importance of ethical interactions and management of software products. Included in this is honesty between levels of management and within the project itself.

Health, Safety, Well-Being: Principle 7 (Colleagues) and Principle 2 (Client and employer) discuss the importance of respecting your colleagues and acting in the best interest of the company and the clientes. These don't relate very strongly to Health and Safety as software engineering is not particularly dangerous, but morals must be kept in mind.

Property Ownership: Principle 2 defines a good relationship between engineers, clients, and employers. It requires that confidential information be kept private and that engineers should not pursue efforts that compromise their employer's interests. It also discusses the proper use of software - an engineer should not use illegal software or software without authorization.

Sustainability: The SE code doesn't specify much about environmental sustainability, but Principle 3 (Product) mentions creating high quality, sustainable software.

Social Responsibility: Principle 1 (Public) describes a fair approach to disclosing work to the public and making socially responsible decisions within software. It also asks that engineers take full responsibility for their work. This is important to the interests of the business as well as the users. The SE code of ethics goes into more detail about creating a good, moral user experience while the NPSE version wants to "enhance the reputation of the profession".

5.2 PROJECT SPECIFIC PROFESSIONAL RESPONSIBILITY AREAS

For each of the professional responsibility area in Table 1, discuss whether it applies in your project's professional context. Why yes or why not? How well is your team performing (High, Medium, Low, N/A) in each of the seven areas of professional responsibility, again in the context of your project. Justify.

Work Competence. Yes, every member of the team has completed at least one internship with a professional software company. We have a high level of experience with the required skills and are capable of carrying out a plan to completion in a way that will lead to success. Every team member has already proven valuable to our team.

Financial Responsibility. Not directly, by BuilderTrend giving us specific deliverables, the burden of financial responsibility does not rest with us as we did not choose what our end product would be. Additionally, no team members are being paid, and other than bi-weekly meetings with the BuilderTrend liaison, our project will have no costs for BuilderTrend.

Communication Honesty. Yes, this is likely our most important **professional responsibility area**. The success of this project is dependent on us taking full advantage of the resources provided such as our Faculty Advisor and our BuilderTrend liaison. Without honesty and communication, failure is almost inevitable. The current performance is not indicative of our long term success in this area, but the high level of **work competence** on the team suggests that we will honestly communicate with our connections.

Health, Safety, Well-Being. Somewhat. This project will have a neutral to positive impact on stakeholders. It is highly unlikely that events that occur will have a negative effect on stakeholders. Public safety will inevitably be improved as the project directly reduces the personal contact between people and increases communication and understanding between parties. Relative to the **professional responsibilities** of the team, any successful completion of the project will result in a positive impact on the public and the company. Thus, there are limited specific actions needed to be carried out by the team other than completing the project.

Property Ownership. Marginally, BuilderTrend and Docusign have provided resources for us to use, but none of the resources are consumable or damageable. The project itself will need to protect the information of BuilderTrend and their customers. This is a concern we have held in mind throughout the entire design process. During project completion, we will not have access to confidential data. This significantly reduces the risk of a data breach and thus reduces the severity of compromising actions a team member could accidentally take. Thus the only risk we face in this **professional responsibility area** is the project itself and any related documentation.

Sustainability. No, this project is entirely electronic, and will not be irresponsibly electrically demanding. In fact, completion of this project will reduce paper use and the need for physical delivery of documents.

Social Responsibility. Yes, completion of this project will improve the lives of those who use it, and will have no impact on those who don't. The project will need to ensure the safety of confidential information. This is something that we have been aware of throughout the design process.

5.3 MOST APPLICABLE PROFESSIONAL RESPONSIBILITY AREA

Identify one area of professional responsibility that is both important to your project, and for which your team has demonstrated a moderate or high level of proficiency in the context of your project. Briefly describe what this responsibility means to your project, the ways in which your team has demonstrated the responsibility in the project, and specific impacts to the project that you have observed

One area that is important to both our project and our team is work competence. This means a lot to our project because we want to keep BuilderTrend's customer's information secure as they interact with each other. We will be delivering work of high quality and integrity by making sure to securely store and manage customer's information within our deliverable.

Although we might not deal with sensitive information directly, we are providing a complete blueprint and proof of concept for Buildertrend's DocuSign integration. Thus, it is necessary to provide a safe and secure solution, while also documenting possible risks related to security. Mainly this would involve securing customer's information and contractor's information while sending contracts to and from each other. Then, Buildertrend can confidently implement our solution into their products knowing that we have accounted for data security.