Building the right way: The need and importance of an ethicist in construction engineering

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ABSTRACT

Historically, the construction industry has been plagued by substantiated unethical business practices that lead to loss in construction quality, economic damage, loss of reputation, and increased risks in public health and safety. These unethical acts draw negative attention to the industry. In order to curtail unethical business practice in the construction industry, it is critical to make ethical education a cornerstone of the construction engineering curriculum. Students within the discipline must have comprehensive ethics education to ensure that they are capable of making informed, responsible decisions on projects when on the job. Ethics education is important to rectify the issues of unethical practices; it is also a key component to academic program accreditation. Accreditation requires departments and programs to have qualified instructors to develop and teach ethics and integrate it into the core curriculum.

The authors posit that departments and programs in construction engineering have an ethicist among their faculty. This scholarly paper outlines the role and characteristics of an effective ethicist using existing literature from within and outside the discipline. The authors suggest that qualified instructors should be ethicists who can fulfill these roles: (1) having a foundation in construction ethics philosophy, (2) teacher/consultant, (3) consultant/teacher, (4) versatility as an educator, and (5) stranger characteristics. Ethicists should master these roles to be effective conveyors to disseminate the information to students. As an ethicist, one must possess the ability to not only be a versatile educator, but one must also have “stranger” characteristics. The authors of this paper seek to facilitate a broader discussion about the need and importance of employing an ethicist in the discipline and also inspiring new and innovative research around the subject matter.

Keywords: construction, ethicist, engineering education, ethics education

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The construction industry is considered one of the most susceptible industries to unethical practices. These practices take place at every phase of a construction project, i.e., during planning and design, pre-qualification, tender (bidding), project execution, and operation and maintenance. Unethical practices can result in unnecessary, unsuitable, and overly complex, delayed or overpriced construction projects. There are a number of factors that make construction more susceptible to unethical behavior. Some of the factors are: competition for contract; bureaucracy for obtaining official approval and permits; project uniqueness which makes price comparison difficult; opportunities for delays and overruns; and that most work is concealed with external finishes and cladding. Unethical behaviors and practices come with a fair amount of risk, i.e., loss in quality, environmental damage and health and safety issues. Unethical practice can have a detrimental impact on a construction organization such as “wasted tender expenses, tendering uncertainty, increased project costs, economic damage, blackmail, criminal prosecutions, fines, blacklisting and reputation risk. These risks project an image that the construction industry is one that is dangerous, patriarchal, and opportunistic.

Ethical awareness and practice may increase financial returns of organizations, e.g., from repeat business and an increased client level of trust. It is important that organization members be aware of ethical issues that arise in practice, especially neophytes of the profession who may be susceptible to the manipulation of “common practice.” An individual with vast knowledge of construction ethics philosophy can be a teacher, consultant, and confidant to those who plan to enter the construction industry.

PURPOSE STATEMENT
The purpose of this paper is to present the idea that the position (full-time or part-time) of an ethicist within construction engineering departments and programs is necessary due to the complexity of ethics in the construction industry. We will also describe the necessary roles and characteristics for a successful and effective construction engineering ethicist.

CONSTRUCTION ENGINEERING ETHICS EDUCATION: WHY?
In a study based upon the rankings by US construction organizations, there were 14 key competencies that construction engineering graduates needed to be successful. The competency in ethical issues received the highest ranking. Construction organizations, specifically those international operations, are recognizing the importance of ethics to their workplace and business operations. Students graduating in the 21st century global markets must understand ethics in the construction industry. There is a mandate of the construction accrediting bodies for literacy of both ethics and sustainability in the curriculum. The American Council for Construction Education (ACCE) requires integration of ethics into the construction curriculum. The ethics education requirement must have oral presentations, business writing and ethics throughout the curriculum. ACCE also set minimum academic requirements of eight semesters of oral and writing communications, and one semester of ethics.

Additionally, the Accreditation Board for Engineering and Technology (ABET) has ethics education requirements for construction engineering programs. In the 2012-2013 ABET criteria for accreditation, there is a list of student outcomes (listed a through k) and two of those outcomes directly speak to ethics education. ABET states that students should process to meet desired needs within realistic constraints—such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability—and have an understanding of professional and ethical responsibility. 

Ethics has to be in the curriculum in some manner. Construction engineering programs must meet the ethical requirements of accreditation while also providing technical training. There are no official guidelines on how the ethical component can be integrated into the construction engineering curriculum. The task of teaching ethics is “particularly difficult given the traditional mindset of technically trained professionals who may view social impact and ethical issues as ancillary topics compared to the foundational material.”

The ethicist is not a new idea in academia. There are ethicists in a number of disciplines. In a business, the ethicist's role is to be philosophical. The clinical ethicist in the health care industry must be able to negotiate a compromise and “contribute to the construction of moral rules and principles.” Engineering ethicists can improve technological design functionally and morally. The ethicist goes
beyond policing behavior and giving orders on what to do and what to avoid. The ethicist can highlight overlooked issues.

THE ETHICIST IN CONSTRUCTION ENGINEERING

Ethicists are philosophers and others that teach ethics that is essential to professional education. For the purpose of this paper, an ethicist has a strong foundation of the knowledge and understanding of discipline-specific moral issues and how these issues impact stakeholders, the organization, the practitioner and society.

We have determined that there are five functionalities that are pertinent to the construction engineering ethicist. Glover’s five roles of an ethicist and Churchill’s stranger definition was modified and expanded for this paper: (1) a foundation in construction ethics philosophy, (2) ability to serve as a teacher/consultant, (3) ability to serve as a consultant/teacher, (4) ability to be versatile as an educator and (5) “stranger” characteristics.

First, a foundation in construction ethics philosophy is a complex area of expertise. A construction engineering ethicist must possess vast knowledge about the dynamics of the construction industry and how these dynamics make the construction industry vulnerable to unethical behavior by its members. A meta-review of construction ethics literature highlighted construction ethical concepts (e.g., bid shopping, bid rigging, collusion, payment and change order games, safety and legal issues). An ethicist must be able to teach these topics effectively. The ethicist must be able to have an understanding beyond professional issues associated with the client/service provider relationship. There must be consideration of other social issues. Those social issues are human resources, discrimination, harassment, and those not, usually, tied to construction ethics philosophy, such as sustainability and stakeholders unable to verbalize displeasure of construction action. The ethicist must be able to convey the complexity of these issues to the students in classroom settings.

The third role of the ethicist is providing consultation to individuals outside of the normal teaching structure. The ethicist is one who can give advice about the ethical dimension of a particular situation. For example, a current or former student of the program is working for a company and has been involved in an issue that has made them feel uncomfortable. The consultant/teacher ethicist needs to be an individual that the student can go to for professional assistance in outlining the situation and highlighting all the dimensions of the issue. The ethicist should only address or outline the moral question. The ethicist cannot answer the question, one can only answer moral questions for themselves. Additionally, if a faculty member requires consultation to teach ethics in a particular class, for example, an estimating class and bid shopping are the topics of interest. The ethicist should have the resources and the ability to brief the faculty member on that issue. The ethicist should also suggest pedagogical techniques that would assist in its instruction based on the style possessed by the faculty member and the atmosphere of the class environment.

As a consultant/teacher, the ethicist must have the understanding of and can present decision-making options to those seeking consultation. If a student presents to the ethicist an ethical dilemma, the ethicist should consider and present arguments to the student to make an appropriate decision. The ethicist should not become a factor in decision-making. The ability to be versatile as an educator is the fourth role of a construction engineering ethicist. The ethicist has a niche as a construction ethics philosopher, but this is not their only duty. The construction ethicist must be able to teach of any required technical topic in the construction engineering curriculum.

Lastly, the ethicist must be a “stranger”. A “stranger” is a person that has not adopted the customs, norms, and rules of the social and political interaction. The construction engineering ethicist stranger needs to be one who does not sit idly by while unethical behavior or the instruction thereof is occurring. For example, a guest lecturer is presenting in a construction project management class, discussing competitive advantage and techniques that border on unethical practice in the context of fair competition. The ethicist and the faculty member are responsible for imparting construction ethics philosophy in this space. They are also to ensure that students have an aggregate cognition of the dimensions of not only this faux scenario, but an understanding of all ethical dimensions related to any construction topic.

INTEREST, TRAINING AND ABILITY OF ETHICIST

Construction engineering ethicists must have the desire and the ability to investigate and understand the complexities of ethical issues in the construction industry and how those issues impact the
industry’s stakeholders. Without a moderate interest in construction ethical philosophy, one cannot be an ethicist in construction academe. There must be a desire to investigate and understand the moral complexities that exist in the construction industry and how making moral decisions impacts involved parties and projects. The ethicist must have an interest in pedagogy to share this knowledge with colleagues and students.

The thought of having a doctorate in ethics or philosophy seems excessive when discussing the position of an ethicist in a construction engineering program. However, at a minimum, an ethicist in construction engineering must be trained to take on such a role. Online workshops, workgroups, and networked collaboration tools and databases offer academics a multitude of means to train and empower an ethicist. Electronic databases of literature, video, instructional techniques, and other resources can be created to help the ethicist with resources to carry out the charge of being an ethicist.

CONCLUSION

Engineering is a learned profession. Engineers are expected to have a high level of honesty and integrity. Engineers provide services that require fairness and equity and must be dedicated to the protection of the public’s health, safety and welfare. Engineers must conform to a standard of professional behavior that requires the highest principles of ethical conduct.

Construction engineering departments and programs has an obligation to educate students in construction ethical philosophy. It is beneficial to students to have an understanding of the elements of an ethical issue and the ability to deconstruct the issue and make informed, responsible decisions. Ethics education is a requirement for the accreditation of any program. Construction engineering education needs to ensure that future practitioners understand the consequences of their actions and how they impact their company, the profession, themselves, and society. The ethicist is the faculty member with the charge to ensure that students have a comprehensive construction engineering ethics education.

The desire and need of the construction industry to have better ethically trained individuals, construction engineering departments and programs must decide if the investment in an ethicist is necessary. A department or program having a technically trained academic that understands foundational material of construction engineering and the appropriate pedagogical techniques to teach construction ethic philosophy is not an abstract concept.

REFERENCES