Abstract SEFI 2013

The Grand Challenge of Engineering Ethics Education

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Engineering ethics has in multiple contexts risen to the status of a theme in engineering education. This presentation reviews the emergence in select regional, national, and cultural contexts (in North America, in Europe, and in some developing countries, using China as an exemplar). It notes the quite different understandings of what engineering ethics can be in such different contexts and describes a spectrum of approaches to engineering ethics education in different institutions. Where engineering functions as a semi-autonomous profession and most engineers work as individuals for private corporations, as in the United States, engineering ethics is not the same as in countries where professional engineering societies may function in different ways or engineers occupy different social roles, as in France or in China. At the same time, there also exist emerging efforts to articulate something like a global engineering ethics and to incorporate such an ethics into a broad spectrum of engineering curricula in many countries. Adapting the model of grand challenges for science and engineering, the presentation further seeks to identify what might reasonably be construed as the grand challenge for engineering ethics and engineering ethics education. This is summarized as the challenge of a duty *plus respicare*, to take more into account, that includes an effort to bridge ethics and politics or policy. The presentation concludes with suggestions for ways such a grand engineering educational challenge may be met.