

The Growing Need for High Ethical Standards in Engineering¹

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Introduction

A significant feature of contemporary life is the combination of the accelerating development of scientific knowledge in a variety of fields and the rapid application of much of this knowledge in the form of new consumer products and services, as well as in various commercial and industrial processes. We hear regularly about progress in genetics—for example, the cloning of mammals. Chemists report on new ideas concerning buckeyballs. Applications obvious to all are cell phones, laser eye surgery, the world-wide web, genetically modified foods, and low cost GPS devices. New pharmaceutical products appear regularly. Much of the new work was made possible by the use of computers. In return, many of the new ideas in chemistry and physics are directed at maintaining the exponential growth of computer capabilities, which has been on going for about two decades and is considered normal.

In the past, scarcely any effort was made even to *assess* proposals for new technology, much less to try to *control* its introduction in such a way as to minimize harmful effects. No significant study was made a century ago of the environmental or societal impacts of the automobile. Three decades ago, in the US, there was a surge of activity along these lines, stimulated by the creation of the Environmental Protection Agency and the Office of Technology Assessment. More recently, the trend has gone the other way.

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