

Social value of scientific and technological enterprises

[Science](#), [Social Science](#)



Social Value of Scientific and Technological Enterprises There would be no scientific or technological enterprises if they did not generate some form of value socially; the purpose of this essay is to provide a brief summary of the types of social value generated by these respective types of enterprises and to speculate as to which type is more valuable in a comparative sense.

As an initial matter, scientific enterprises generally refer to research rather than applications as manifest in the commercial world. This is not to suggest that the research and development that is conducted in research

laboratories is not commercially motivated, most of it certainly is, but to simply note that it is a preliminary step rather than an outcome. There are many types of social value associated with research. International Business Machines, for instance, has stated that “ Our research needs not only to attract the attention of academia but also to have an impact on a wide range of sectors in society. Fortunately, IBM has various systems to utilize research results for the benefit of society” (Research Value to Society, 2008: n. p.).

First, IBM intends to convert its research into products. This creates social value in the form of employment, increased tax revenues for social services, business stability and expansion, and a better standard of living. Second, though the research is protected by intellectual property rules, it does become disseminated in many ways as public knowledge. Although others may not violate the research protected the intellectual property laws, they may learn how to build on the newly discovered knowledge. Finally, research enterprises tend to be rather collaborative in modern times and this means that knowledge is being shared commercially and socially; as an illustration, IBM has stated that “ IBM supports the promotion of open systems that

optimize open standards and open sources with the goal of realizing collaborative innovations. TRL is working with governments and corporations to conduct research in open technologies, including open document formats (ODF)” (Research Value to Society, 2008: n. p.). The significance of research is fundamentally the dissemination of knowledge which is most often commercially-oriented but which is increasingly being used to promote social values such as public health and safety and other social objectives.

The National Oceanic and Atmospheric Administration’s Office of Oceanic & Atmospheric Research, for instance, has stated that they provide “ value to society through improved weather forecasts, and enhanced navigation and aviation safety, as well as improved ocean and coastal services. Ultimately, the information NOAA Research provides is used by decision makers to prevent the loss of human life and manage natural resources, while maintaining a strong economy” (2006 Key Accomplishments, 2006: n. p.).

What is notable is how pervasive these benefits are, applying to fundamental issues of public health as well as the economy.

Industrial processes, or technological enterprises, can also add value to society. A popular industrial process today is the manufacture of the hybrid vehicle. Proponents have claimed that this dual-powered motor vehicle can provide social value in terms of less pollution, less dependence on foreign oil, better fuel efficiency, and quieter cities. As noted by Delucchi and Heffner et al., however, not all of these social benefits can be achieved because the industrial processes and the technologies are not yet perfect (2006: 1). It is here that one can weigh the relative importance of scientific enterprises versus technological enterprises; more specifically, industrial processes are

always dependent on research and that would seem to make the work going on in research laboratories more important. The hybrid car context is illustrative because the deficiencies must be resolved in the laboratories or not at all.

In the final analysis, both scientific and technological enterprises provide different types of social value. In my view, however, because industrial processes are dependent on research, it would appear that scientific enterprises are slightly more important or valuable.

Works Cited

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