

The engineering profession and communication



THE ENGINEERING PROFESSION Engineering has been called an applied science that has as its goal the creation or improvement of products or technologies with immediate practical application. Unlike scientists, engineers typically work on projects assigned by their management, most often work in industry or government, conduct projects in teams, and focus their goals on company or organizational success (Von Seggern and Jourdain, 1996). Engineers tend to be specialists who work to solve technical problems collaboratively with other engineers and with scientists. Typically engineers in both industry and academia need more information than they generate, rely on personal information and experience, seldom use libraries, and use more texts, technical reports, catalogs, and trade journals rather than scholarly journals or conference papers (Leckie, Pettigrew, and Sylvain, 1996). The engineering profession is unique in many ways. For example, engineering is context-specific and often involves proprietary information and, as a result, engineers tend to rely on conversations with internal colleagues and clients (Veshosky, 1998). Scientists, on the other hand, are accustomed to external communications sources, including academic journals and free exchange with colleagues at other organizations. Engineers also communicate some with external colleagues, but to a much more limited extent.

The thinking process required in engineering requires more complex and abstract problem solving than most disciplines, so communicating with non-engineers may be difficult (Li, 1994). Although projects are assigned, engineers typically have freedom in deciding how to do their work and they are expected to make informed decisions in a number of situations

where many possible solutions are available??? (Hertzum and Pejtersen, 2000). The choices that engineers make in deciding how to approach their tasks and solve problems depends on their ??? understanding of the context of the task and, consequently, on their success in obtaining information about this context??? (Hertzum and Pejtersen, 2000).