Chapter 13

Progress Report

13.1 Goals—writing progress reports, making sure there is progress

This assignment is an opportunity for you to tell us, in writing, how you are doing on your final project. Put your progress report into the form of a memo.

The example in Figure 13.1 shows the format, but not, we hope, the content of a progress report. The body of the memo was written by William Cohen of China Lake, California, as an example of the many cliches and circumlocutions that appear in technical reports. Translations of the phrases appear in parentheses.

13.2 Audience assessment—instructors and supervisors

Your audience for this assignment is your instructors, and your purpose is to tell us what progress you’ve made on the final project. In industry, you will often need to file progress reports with your supervisor. The goal of such progress reports is either

- to convince your audience that you are making progress, that it’s the proper progress, and that you will finish on time, or
- to explain problems and to request assistance or guidance.

13.3 Writing process—short progress reports

Even a brief, one-page memo requires planning and perhaps a simple outline. Make notes or an outline of all the things that your supervisor (namely us) would want to know. You should include a brief description of the general outline of the report, whether you are writing a proposal, reporting an investigation, writing documentation, or doing a library research project. Next, include the subject and scope of your report, including the major areas your table of contents will cover, and then tell us how you’re doing on it. Talk about any research you’ve done, how the actual writing is going, and any problems you’ve run into. Don’t be afraid to mention problems—there may be something we can help you with. Include any information you find relevant.

For joint projects discuss how the division of the work is working out, if you think changes should be made, and if so, what.

Be sure to tell us, right at the beginning, if you have changed the topic or the scope of your report in any substantial way since we approved your proposal for a final report. These are the kind of changes that we need to know.
To: Kevin Karplus and Sharman Murphy, Instructors  
From: A panicky student  
Date: 26 Feb 1993  
Subject: Progress on the report that hasn’t been started  

During the current reporting period, considerable progress has been made in the preliminary work directed toward the establishment of the initial activities. (We are getting ready to start, but we haven’t done anything yet.) The background information has been surveyed and the functional structure of the component parts of the cognizant organization has been clarified. (We looked at the problem and decided that George would do it.) Considerable difficulty has been encountered in the selection of optimum materials and experimental methods, but this problem is being attacked vigorously, and we expect that the development phase will proceed at a satisfactory rate. (George is looking through the handbook.) In order to prevent unnecessary duplication of previous efforts in the same field, it was necessary to establish a survey team which has conducted a rather extensive tour through various facilities in the immediate vicinity of manufacturers. (George and Harry had a nice time in New York.) The Steering Committee held its regular meeting and considered rather important policy matters pertaining to the overall organizational levels of the line and staff responsibilities that devolve on the personnel associated with the specific assignments resulting from the broad functional specifications. (George and Harry were complaining about their jobs at the corner bar again.) It is believed that the rate of progress will continue to accelerate as necessary personnel are recruited to fill vacant billets. (We’ll get some work done as soon as we find someone who knows something.)

Figure 13.1: Example of good memo form and bad style in a progress report (by William Cohen).

13.4 Professional Ethics

13.4.1 Honesty is the basis of professional ethics

Progress reports call for complete honesty. If you have good reason to believe that a project will not be completed on time, say so, and explain what additional resources would be needed to be able to complete it. Your manager may want you to write glowing progress reports, then when the project falls apart, he can point at the reports and say that so far as he knew everything was on track, and that the whole mess is the fault of lying subordinates. Don’t get stuck with the blame!

Even when routine progress reports are not required, you may want to write one when a project is going badly, to inform management of a problem. There is always some risk in being the bearer of bad news, as the managers will start looking for someone to blame long before they start looking for a solution.

Sometimes you will be asked, with more or less subtlety, to aid in a deception—to make things look better either to higher management or to a customer. Resist such requests! A firm “I can’t do that, it would be dishonest” is often all it takes to avoid some very messy situations. As an honest, competent engineer, you are far more employable than the dishonest managers who would ask you to compromise your principles—if they insist, you can walk away from the job, writing a letter to higher management explaining why you cannot work for the company any more. It is much easier to resist pressure if you have enough money in the bank to live for six months without a job. Build up that cushion before you buy a new car, a new stereo, or a new house. Even if you never have to quit for ethical reasons, layoffs are common in the computer and electronics industry. Usually you can get re-hired somewhere else fairly soon, but having some money in the bank allows you to pick your job a bit more carefully.

Huckin and Olsen also have some mention of ethical issues for engineers [HO91, Chapter 2].

The next section includes the 1979 text of the IEEE Code of Ethics for electrical engineers. The Code was revised recently, mainly in attempts to strengthen the wording about engineers’ responsibility to society (see Section 13.4.3). Other than some rather obvious self-serving provisions, the 1979 code is still a pretty good one. We will discuss aspects of the code in class—please read it carefully to identify parts that you disagree with, that are open to misinterpretation, or that emphasize one aspect of integrity at the expense of another.

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13.4.2 1979 IEEE Code of Ethics

Preamble

Engineers, scientists, and technologists affect the quality of life for all people in our complex technological society. In the pursuit of their profession, therefore, it is vital that the IEEE members conduct their work in an ethical manner, so that they merit the confidence of colleagues, employers, clients, and the public. This IEEE Code of Ethics represents such a standard of professional conduct for IEEE members in the discharge of their responsibilities to employers, to clients, to the community, and to their colleagues in this Institute and other professional societies.

Article I

Members shall maintain high standards of diligence, creativity, and productivity and shall
1. Accept responsibility for their actions;
2. Be honest and realistic in stating claims or estimates from available data;
3. Undertake technological tasks and accept responsibility only if qualified by training or experience, or after full disclosure to their employers or clients of pertinent qualifications;
4. Maintain their professional skills at the level of the state of the art, and recognize the importance of current events in their work;
5. Advance the integrity and prestige of the profession by practicing in a dignified manner and for adequate compensation.

Article II

Members shall, in their work,
1. Treat fairly all colleagues and co-workers, regardless of race, religion, sex, age, or national origin;
2. Report, publish, and disseminate freely information to others, subject to legal and proprietary restraints;
3. Encourage colleagues and co-workers to act in accord with this Code and support them when they do so;
4. Seek, accept, and offer honest criticism of work, and properly credit the contributions of others;
5. Support and participate in the activities of their professional societies;
6. Assist colleagues and co-workers in their professional development.

Article III

Members shall, in their relations with employers and clients,
1. Act as faithful agents or trustees for their employers or clients in professional and business matters, provided such actions conform with other parts of this Code;
2. Keep information on the business affairs or technical processes of an employer or client in confidence while employed, and later, until such information is properly released, provided such actions conform with other parts of the Code;
3. Inform their employers, clients, professional societies, public agencies, or private agencies of which they are members or to which they may make presentations, of any circumstance that could lead to a conflict of interest;
4. Neither give nor accept, directly or indirectly, any gift, payment, or service of more than nominal value to or from those having business relationships with their employers or clients;
5. Assist and advise their employers or clients in anticipating the possible consequences, direct and indirect, immediate or remote, of the projects, work, or plans of which they have knowledge.
Article IV

Members shall, in fulfilling their responsibilities to the community,

1. Protect the safety, health, and welfare of the public, and speak out against abuses in these areas affecting the public interest;

2. Contribute professional advice, as appropriate, to civic, charitable, or other nonprofit organizations;

3. Seek to extend public knowledge and appreciation to the profession and its achievements.

13.4.3 1990 IEEE Code of Ethics

The Board of Directors of the IEEE approved a new code of ethics at their August 1990 meeting [IEE90], to replace the rather wordy 1979 one. Note how the writing style has changed, and how much terser and crisper the new code is.

We, the members of IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to conduct of the highest ethical and professional conduct and agree

1. to accept responsibility in making engineering decisions consistent with the safety, health, and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;

2. to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;

3. to be honest and realistic in stating claims or estimates based on available data;

4. to reject bribery in all its forms;

5. to improve the understanding of technology, its appropriate application, and potential consequences;

6. to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;

7. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;

8. to treat fairly all persons regardless of such factors as race, religion, gender, disability, age, or national origin;

9. to avoid injuring others, their property, reputation, or employment by false or malicious action;

10. to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.

13.5 Assignment—final draft only

The progress report is short enough that we do not expect you to take several days preparing it. Because the progress report has significant time value (we want to know the current progress—not last week’s), we do not ask that you bring in a draft for comments before turning in the final memo.

Please use standard memo format [HO91, Chapter 13].

Don’t forget to tell us the title of your project, preferably in the “Subject” field at the beginning of the memo—we can’t remember exactly what everyone is doing!