

if you change your mind constantly about what the system is to do. Computer programs can start to do strange things if they are constantly changed and amended.

The third reason systems fail is that the analysis is not properly done. Failure to do a proper needs analysis can result in a waste of both money and people. It can also create negative attitudes that take years to overcome. For example, suppose that machinery is purchased before the needs are clearly established; it may turn out that software is not available or that it is an inappropriate project to automate. Perhaps a word processor is acquired when a personal computer is needed. Users get some but not all of what they hoped for. Very often not all of the needs will be adequately defined. Some, but not all, potential users of a system may be identified. Some users either lack creativity in defining future uses or they will say anything on the theory they don't believe in computers anyway. (The system probably won't work anyway attitude can easily become a self-fulfilling prophecy). It is not enough to define what you would like to have on a system, you must be able to get that information. That means having a steady, willing, accurate source of information that comes in a constant format. If you can't capture the data on time you can't produce the reports on time. On the whole, it is easier to successfully automate a process if you already have a successful manual operation in place. Making a lot of changes from your manual system when you automate can also decrease your chances of success. Another point to consider in your needs analysis is who your users are going to be. Buying a word processor is not the same as buying a micro computer. They may have different users. For example, an officer may wish to keep information on a group of contacts whereas his secretary may want to be able to send them more personal looking form letters. Similarly, the Head of Post will have different financial information needs from the senior accountant. If not careful, you can miss potential users or have the wrong users on the wrong system.

The fourth reason systems fail is technical failure. The software is poor or the machinery is not adequate. Perhaps the system does not meet the original design specifications. In the early days of computing, these were the most commonly given reasons for system failure. Today machinery is becoming smaller, cheaper and more reliable. Technical failure is now the least common cause of system failure.

The fifth and perhaps most common cause of system failure is the flow of data into and out of the computer. Data to be fed into the system is poor, slow or inaccurate. Reports out of the system do not meet the users' needs. This too is a problem that has been present from the early days of automation. The underlying reason may be a poor needs analysis as mentioned