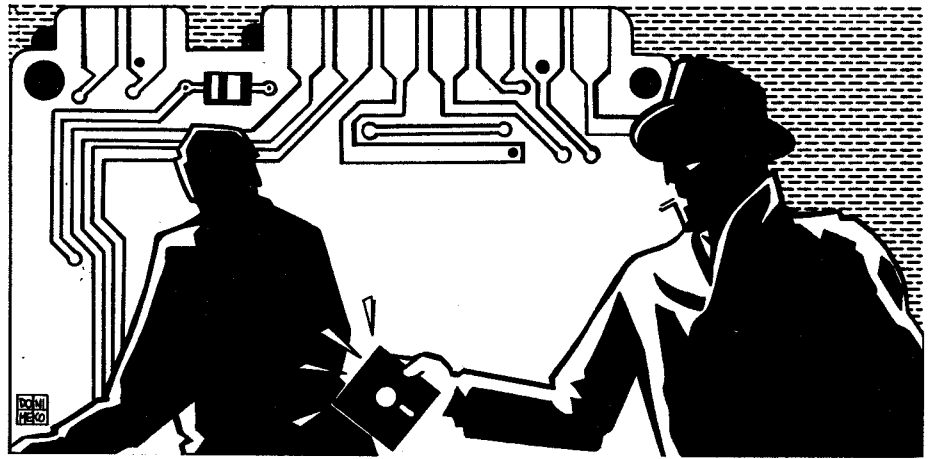# The victimization of computer crime

Carlo Sarzana

The most likely victims

Studies conducted into informatics crime in different countries have tried to identify the categories of corporations or organizations which are most likely to fall victim to informatics crimes.
In the United States, the research into computer abuse conducted by D.B. Parker has shown that most of the organizations which have fallen prey to informatics crimes are in the banking and insurance industries — both service industries. The General Accounting Office survey showed up the high rate of informatics crimes committed against federal government organizations.
According to research carried out in Australia by the CIT-CARB Chisholm Institute of Technology, government agencies and financial institutions are the most likely victims.
A recent survey in Sweden carried out by A. Solarz for the National Council for Crime Prevention found that the vast majority of companies falling victim to computer crimes are banks and the post office.

The reluctance to report

Surveys and research conducted in various countries - Australia, Sweden, the UK, and the US — on computer-related crimes have all stressed that the actual number of computer-crime victims is probably far higher than officially recorded because organizations are extremely reluctant to report the crimes.
The survey recently conducted by the American Bar Association is very enlightening in this regard. Almost two-thirds of the individuals questioned said that they had not reported the computer crimes discovered in their organizations, or that only some of these crimes had been reported. In other words, there is a kind of "rule of silence" among managers, which leads them to sort matters out internally. The person discovered committing a computer crime is transferred to some other area of the organization and, in quite a number of instances, as D.B. Parker has pointed out, the guilty person is actually bought off by a raise in his salary to keep him quiet. Sometimes, the perpetrator of the deed is simply sacked, but, as Ken Wuong concluded in his 1981-survey in the UK, "in some cases, with glowing references, or even golden handshakes".
It is an open secret that, of all the organizations falling victim to computer crimes, financial institutions, particularly banks, are especially reluctant to report them.
Research conducted in Australia by CIT-CARB showed how the solidarity of the banking fraternity had ensured that no information was supplied to researchers.
J. Chamoux, in a recent survey sponsored by the EEC Commission, has said that "embezzlement in the banking world is a daily occurrence.., but bankers prudishly cover up this activity, which does them great damage". The result is that banks tend "to hide the problems at the source and then sort them out on their own".
According to D.B. Parker, however, American banks seem to fall victim to informatics fraud more easily than European banks.
The Bank Protection Act and other US laws require banks to report any fraud or unexplained losses exceeding $1,000 to the authorities who regulate banking, particularly the Federal Deposit Insurance Corporation and the Federal Reserve System. Penalties for failure to report, or for delays in reporting, are very stiff. A questionnaire, entitled "Security Questionnaire", has been designed to deal with cases of fraud related to electronic funds-transfer systems. It must be filled out and returned to the Federal Deposit Insurance Corporation.

Reasons for reluctance

The reluctance of the victims to report computer-related crimes is not irrational by any means. There are several reasons which cause the victims to think very carefully before reacting.
Scholars, such as Parker, Bequai, Norman, Wuong, Sokolik, and others, who have been dealing with the problem in various countries have identified a number of factors which they believe influence this behaviour of victims:
● the fact that the community at large tends to view crimes in the electronic data-processing area as deeds which are irrelevant to criminal law and, at all events, of little relevance to society;
● the fear that the public will lose confidence in, or no longer feel attracted to, the organization and hence cause it financial losses which, it is assumed, would exceed the losses caused by

less related to the link between computers and legal systems mentioned earlier, have been undertaken with some success. They are demonstrating the definite potential for a closer relationship between computers and the law.

For example, research has been carried out at the London School of Economics on the application of logic to language. This has led to the development of a language which is based on the principle that, for knowledge to exist, there must be a "knower" and an action of "knowing". This language may favour a closer relationship between law and informatics.

Another set of very interesting projects involves the research being carried out by Miguel Sánchez Mazas and the Italian Institute for Legal Documentation in Florence. These projects represent an attempt to discover a mathematical model for automated legal analysis and the mathematical processing of laws.

The Micro-Bird Data-Retrieval system is also intriguing. Developed at Queen's University in Belfast by Professor Colin Campbell, with the financial support of the National Law Library, this initiative is designed to offer micro-informatics solutions to the professional needs, in both documentation and management, of jurists. Yet another noteworthy project is the Taxman-II model of MacCarty in the US.

The Saragossa project

The research project currently under development at the University of Saragossa is designed to achieve a viable relationship between legal theory and practice and demonstrate the use of modern microcomputers to render the law more accessible in society. The effort centres around an appraisal of the accessiblity of the relationships among legal norms in legal texts to computer processing. The methodology involves analysis based on an actual code, which has been developed by a multidisciplinary team of jurists. To reduce the difficulty of the project, the analysis has been restricted to the CFA, the Legal Forensics File of Aragón, which has been made available to the team during the projected research period.

In concrete terms, the project involves the creation of a thesaurus, composed of legal concepts which are linked by various interpretations of the legal texts. The thesaurus will be based on an hypothesis which is recognized by modern legal theory. According to this hypothesis, the relationships among legal concepts, both at the time of development and at the moment of application, may not be limited to ties of symbolic and propositional logic or deontology.

The usefulness of the thesaurus is assured because a databank of legal documents will be developed and formated on the same principles. This databank will be accessible to users thanks to the development of a database-management system and an intelligent programming language.

The software developed during the project will be geared to applications on minicomputers, standard personal computers and, if possible, intelligent personal computers. This will satisfy the recommendations being implemented in the ESPRIT programme, the European Strategic Programme for Research and Development in Information Technologies, of the European Community.

The concrete goals of the project include an analysis of the CFA in which the legal structure of the file is transformed into common, everyday language; a compilation of the keywords and descriptors included in the CFA that will be accomplished through research into legal theory and lingustics and computer processing run on a database program; a reorganization of the CFA that will involve the systematic listing of the largest possible number of legal norms; a translation of legal norms into symbolic language in the form of propositions through the use of logical vectors; a recomposition of the CFA into a databank composed of information in symbolic code; the development of software compatible with a databank based on an intelligent language; and an evaluation and eventual adjustment of the thesaurus, the porcedural model and the theories on which the system has been based.

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