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Controlled Accessibility Bibliography

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CONTROLLED ACCESSIBILITY BIBLIOGRAPHY

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A bibliography of 96 references on controlled accessibility has been compiled. The purpose in compiling this limited bibliography was to free the effort to solve the problems of controlled accessibility from domination by discussion of the issues of privacy. Insofar as possible, except when the two subjects are referred to in the same work or for overriding historical considerations, references dealing with privacy have not been included.

Key words: Confidentiality; controlled accessibility; data integrity; data security; security.

1. INTRODUCTION

The purpose in publishing this bibliography on Controlled Accessibility when several fine ones already exist in the field of privacy and security is to segregate the work on controlled accessibility from the larger field. Although controlled accessibility is an integral part of the privacy and security field, it often is not afforded the attention it deserves as the instrument of accomplishment of the objective because discussion of the entire field tends to hover over the emotionally charged privacy issue instead of coming to grips with the technological problems of providing security for computer based data.

No claim to exhaustiveness is made for this bibliography. The intent is to provide references to readily available material, therefore classified documents and articles published in journals of limited distribution have been omitted. Omission is not meant to be a commentary on the value of the work. This bibliography is aimed at those who wish to move past or avoid the privacy considerations and concentrate on the methods through which computer technology can protect data from accidental or intentional loss, disclosure or modification.

Because some of the terms basic to the field of privacy and security have been loosely used in the past to refer to either the privacy or the security aspects of problems, thus contributing to the confusion of the issues, it would be well to define some of them here and indicate their relationship to each other. These definitions have been distilled from the works listed.

Privacy is a concept which applies to an individual. It is the right of an individual to decide what information about himself he wishes to share with others and also what information he is willing to accept from others; i.e. he is freed from observation by others when he so wishes and he is free to select from the universe the information he wishes to assimilate unto himself. This concept is in direct conflict with the present trend toward collecting and storing a large amount of information about everyone and then using it for a number of different purposes. The resolution of such matters will have to be achieved through legal channels and is not within the purview of controlled accessibility. The privacy issue has not resulted from the development of computers, but the heightened interest in it can be laid to the capability of computers for storing vast amounts of readily usable data.

Confidentiality is a concept which applies to data. It is the status accorded to data which has been agreed upon between the person or organization furnishing the data and the organization receiving it and which describes the degree of protection which will be provided. It is the confidentiality of data that requires protection, not the privacy.

Security in the computer community is the realization of protection for hardware, software and data.

Data security is the protection of data against accidental or intentional destruction, disclosure or modification using both physical security measures and controlled accessibility.

Physical security, as it pertains to computers, does not differ from physical security for other installations. It is achieved through the use of locks, guards, badges, personnel security clearances and administratively controlled measures outside the computer as well as measures required for the protection of the structures housing the computer and related equipment against damage from accident, fire and environmental hazard, thus ensuring the protection of their contents.

Controlled accessibility is the technological measures of hardware and software available in a computer system for the protection of data.

Data integrity is the guarantee of the organization maintaining data that it is free from error, i.e. it does not differ from its source documents, and that it has not been exposed to accidental alteration, disclosure or destruction.

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