

DATABANKS ARE NOT SAFE

Editorial by Dr. Gerhard Maurer, Computerwoche, October 1, 1976, Page 7

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The bibliography associated with the talk "Technical Possibilities and Problems in Protecting Data in Computer Systems," which was given by Professor Jerome H. Saltzer at Linz, Austria points out that the problem of information protection is being seriously discussed in scientific circles. The most often cited sources are: protocols of the ACM and IEEE conferences, dissertations from M.I.T. and Stanford, Air Force reports, etc. Professor Saltzer and his co-workers at the Laboratory for Computer Science at M.I.T. (which has since early 60's been a ground breaking facility for time sharing systems under the name Project MAC) count as authorities in the field of data security in computer systems. Saltzer is not just anyone speaking; he is to be taken seriously when he warns of the inadequacy of presently available on-line systems which base their security against penetration by highly qualified system specialists on passwords and subscriber lists. Saltzer said in Linz "so far all attempts by so called "Tiger Teams" to penetrate the security measures of interactive systems have proved successful even in the case of systems considered to be most secure."

Appearances Deceive

The Pentagon and giant firms are appropriately disturbed. Accordingly very large sums -- multi-million dollar contracts -- are given to a number of research teams in the United States, among them Saltzer's famous laboratory, in order that help may be found -- and Saltzer is optimistic.

As for the possibility that information may be "protected" on the level of operating systems (and of necessity also on the level of micro programs and restricted access techniques) similar results are reported in a recently completed and strongly classified study for the military by IABG of Ottobrun. They too issue an urgent warning not to rely on false security.

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Two consequences

1. Until further developments, information whose acquisition is worth the application of considerable know-how, even in the face of great risk, is not to be stored in giant interactive time sharing systems. The payroll records of executives of large firms are in any case generally stored in medium data processing installations, administered by special sections of the firms' personnel departments. In fact dedicated systems can also provide a temporary solution to the problem faced by the research and special documentation sections of firms. As Saltzer himself mentioned in side remarks, such systems can at least be physically secured behind locked doors.
2. The credibility of manufacturers has once more collapsed. Have those who write in the slick house-organs understood that all that appears there about access protection and password controls is of no help whatever against highly motivated and competent system invaders? Naturally not. Such honest statements would be damaging to their businesses.