

RESULTS

PREPARED UNDER A GRANT FROM THE NATIONAL SCIENCE FOUNDATION

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The growing use of computers to store sensitive, private, and classified information makes it increasingly important to be able to determine with a very high degree of confidence the identity of an individual seeking access to the computer. This report summarizes preliminary efforts to establish whether an individual can be identified by the statistical characteristics of his or her typing.

The investigation was carried out under the joint direction of Stockton Gaines and Norman Shapiro, who are responsible for the central idea of using keystroke timing as the basis for an authentication system. They also developed the textual material upon which the experiment was based, and they conducted the experiment. James Press developed the statistical model for authentication, directed the analysis of the experimental data, and drafted the report. William Lisowski programmed the authentication procedure for the computer, developed programs for analyzing the data, and ran the data through the routines.

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