

# Computer use in social forecasts

By Roger Simon

Computer experts remember with a sense of creeping horror that election night in 1968 when the television network tote boards began blinking results from Pennsylvania.

Dick Gregory, the Peace and Freedom candidate, had tallied some 6,500 votes at one point, and then seven minutes later the computer told the country that Gregory now had 9.7 million votes. Because that represented 74 per cent of the entire vote in Pennsylvania, it looked like quite a trend was forming.

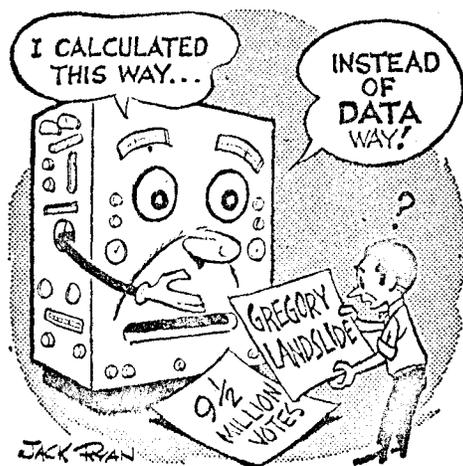
However, it seemed there was a little error somewhere, and the entire computer operation shut down at about midnight. Although the system worked well four years later, it is still not known what caused it to report the bogus Gregory landslide.

What the computer was trying to do was to predict human behavior.

Having been programmed with past voting trends from certain areas, the computer was evaluating current vote results, comparing the two and then projecting what would happen if the trend continued. That was all so the announcer could say to the waiting millions: "With 3 per cent of the vote in, we project Richard Nixon will win Pennsylvania."

That's fairly simple, and although there have been some arguments over whether early projections cause those who have not yet voted to change their minds, it all has seemed fairly harmless.

There are some other areas where computers have tried to predict human behavior, however, that have caused much more controversy and where mistakes could be much more costly.



William J. Bowe, a Chicago lawyer, sat in the War Room of the Pentagon from 1968 to 1971, along with a whole team of men, trying to predict where the next riot would take place in the United States so Army troops could be dispatched there.

"Part of the Army's concern was valid," Bowe said. "If the Army knew what it was doing out on the streets during a riot, they were less likely to kill innocent U.S. citizens."

But things got out of hand.

"The kind of thing that the Army ended up doing was a good deal more than it should have done," Bowe said. "Everyone was surprised at the degree of the direct collection of unevaluated information and the wide range of excesses."

A Senate committee headed by Sam J. Ervin Jr. (D-N.C.), the man now heading the Watergate investigating committee, looked into the Army spying in 1971 and specifically the Army's use of computers and data banks.

The committee learned that the Departments of State; Health, Education and Welfare; Housing and Urban Development; Transportation;

Justice, and Defense maintain huge computer files, along with the Federal Bureau of Investigation, the Census Bureau, Civil Service Commission, Secret Service and Internal Revenue Service.

The Defense Department said its central index bank in Baltimore contained separate files on 25 million persons and 760,000 organizations and incidents and processed 12,000 information requests a day. The number of files in the data bank was growing by 2.5 million a year.

The Army records contained files on 7.9 million persons, the Navy had 3 million and the Air Force 2.6 million.

By their admission, literally millions of these files were dossiers on U.S. residents for noncriminal political reasons.

"It is clear that Americans are concerned about the growth of government and private computer record-keeping on individuals and that existing laws do not protect their privacy against the informational power of the government," Ervin said in 1971.

William H. Rehnquist, then assistant attorney general, had the following exchange with Ervin on March 17 of that year:

ERVIN: Does a serious constitutional question arise when a government agency places people under surveillance for exercising their 1st Amendment rights to speak and assemble?

REHNQUIST: No. The practice is undesirable but not in violation of 1st Amendment rights.

(Two interesting points emerged from the hearings. Rehnquist was appointed to the Supreme Court and later sided with the majority in a 5-to-4 decision that the Army file-keeping was not unconstitutional, and Ervin's current committee just hired a computer from the Library of Congress to keep track of all the Watergate testimony.)

"The computer was an incredible adaptation of technology to the rather arcane job of spying," Bowe said. "It was an example of how paranoid and out of touch the Nixon administration was at the time."

"And what's more it was all garbage. All this stuff was in the computers, but it was all worthless for predicting what the Army wanted to do with it."

was all a game."

When stories of the Army spying broke in the press, Melvin Laird, then secretary of defense, ordered closer civilian control of the operation and the "purging" of some of the files.

Bowe helped the Ervin committee investigate the subject. "The Army operation was worthless because all sorts of worthless information about people and their activities was thrown in," he said.

"They ended up with a huge data bank of names that could be summoned by a variety of persons, and that's all. It was worthless for predicting riots, which are mainly a psychological spasm anyway."

Bowe said that after John Kennedy's assassination, the Secret Service tried to identify potential assassins with its computers and came up against the same problem.

"Since you can store and summon up such huge

amounts of information it is tremendously tempting," Bowe said. "But it is a fascinating and powerful tool that people have not learned to use with much finesse."

"The real problem is that even though the Army information was useless for predicting riots, all that information was sitting there," Bowe continued. "If people know that their actions, or attendance, at a political rally are going to end up in a data bank, they are going to limit their activities and that's an infringement on the 1st Amendment freedoms."

There are, however, other uses for such information, and some areas where the prediction of human behavior may be done with greater success.

One of the more obvious is in the field of politics. Politicians have taken polls for years, and the business of having tailor-made computerized letters sent to voters based on their interests or history was done in 1968 to the tune of 100 million pieces of mail.

There are now computerized phone banks that can place 72,000 personal calls a day with tailor-made messages: emphasizing antiabortion issues to Roman Catholics or proenvironmental stands to subscribers of certain wildlife magazines, for instance.

But now the field is being pushed even further down to the prediction of what voters will be thinking in five or 10 years.

The National Opinion Re-

search Center, affiliated with the University of Chicago, recently received a grant from the National Science Foundation to predict political and attitudinal trends in the United States.

"We will try to collect existing data from archives on questions that have been repeated over long periods of time," director James A. Davis said. "For instance, people have been asked how they feel about the President every month since 1936.

"We will then assess certain trends and with a computer model — a computer simulation, actually — we will try our hands at prediction," he said. "We will try to predict how people will feel in five or 10 years."

Davis cited a previous computer study that showed that the population was growing more liberal in its attitudes toward race relations at the rate of a 1 or 2 per cent increase a year over the last 20 years.

By weighing certain factors such as deaths the older (and assumedly more conservative) segments of the population and the increasing educational level, a computer can predict what the country may feel about race relations in any given future year.

"In theory, you could use this procedure to project any political issue that you have enough data to get a trend from," Davis said.

Social scientists have been using computers for years to gather and compare data, of course,

but the field of predicting social trends is relatively new.

"From what I know, there has not been a lot of work done that is tremendously valid," said Robert L. Ashenurst, director of the Institute of Computer Research at the University of Chicago.

"The more ambitious projects have not worked out very well, and even the use of computers for surveillance, like the Army did, was a pretty crude thing."

Philip Katz, assistant professor of information engineering at the Chicago Circle campus of the University of Illinois, said that purely from his personal viewpoint, three-quarters of the information produced by computers for social-science purposes is nonsense.

"I wouldn't touch it with a 10-foot stick," Katz said. "Personally speaking, I think it's witchcraft and black magic and the whole field is a morass."

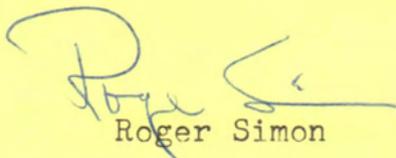
Katz said that both as a scientist and citizen he is worried about the government data banks and even the use of computers for political purposes.

"The trouble with the use of computers is that it heavily depends on money, and that favors the richer candidate," he said. "If you have the money, you can buy the hardware and the talent and examine anything or anyone you want.

"It's not that we're worried about us, but now—the first time—it is able to do something about it."

Dear Bill:

Sorry for the delay, I got a little sidetracked. Thanks  
for the stuff.

  
Roger Simon

6/22/73

From the desk of:

WILLIAM J. BOWE

May 31, 1973

Roger,

I hope these will  
be of some use.

I would appreciate  
having them returned  
at your convenience

Bill

CD Threat Study