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PROPOSAL FOR A DEMONSTRATION PROJECT ON

COMPUTER-ASSISTED OPERATIONS

IN THE AMERICAN CONGRESS

(1966) By Alfred de Juega

with the collaboration of Prof. Kenneth Janda
~~based on the work of~~ (Northwestern University)

To be conducted by a technical and professional research team working under the auspices of the American Enterprise Institute for Public Policy Research in cooperation with members of Congress.

consultation
with
~~Prof Alfred de Juega~~

I. SUMMARY OF PROPOSAL

The power and competence of Congress can be enhanced by the inventive and skillful use of computers in connection with many legislative tasks. The time lag between now, when experts and Congressmen already are aware of the need, and the future, when the need will be fulfilled, can be reduced and a number of uncertainties eliminated if, at this time, a research team were to begin work on a demonstration or pilot basis. A scientific committee would supervise a small team of several members, including technical and Congressional scholars, who would work for at least one year in the offices of two Congressmen, setting up and operating machine-assisted systems for quick retrieval and analysis of data on Congress, on the Congressman's constituency and on the Executive branch of government. Total costs of the project would approximate \$415,000 dollars. The ultimate savings are expected to be many times this amount and the rationality of public policy should be increased at the same time.

II. DEFINITIONS

Computer-assisted operations means all activities of Congress that can be made more reliable, faster, inexpensive and effective by partial or total redesign using the capabilities of computer hardware and software.

By Activities of Congress are meant the following categories:

- constituent relations
- committee work
- decision-making (legislation)
- internal office administration
- information about domestic and foreign affairs relevant to issues before Congress
- information about and control over executive agency operations

By a Demonstration Project is meant an actual operating model installed in two congressional offices in such a way as to:

- a) assist actual operations
- b) permit research and adjustments of the system under operating conditions
- c) exhibit the possibilities of the system to other Congressmen, experts, the press, and the public.

III. BACKGROUND OF PROJECT

The American Enterprise Institute for Public Policy Research sponsored, in 1965, a study of the organization of Congress by twelve scholars under the direction of Professor Alfred de Grazia of New York University. One part of the study consisted of a theoretical study by Professor Kenneth Janda of Northwestern University, entitled "Information Systems for Congress." Coincidental with the AEI study, the Joint Committee on the Organization of Congress held hearings during which witnesses attested to the increasing possibility of and interest in computer systems for Congress.

On April 6, 1966, the Legislative Reference System of the Library of Congress issued a special report on the subject of "Automatic Data Processing for the Congress" in which appears the following passage:

"In considering those potential applications areas where automatic data processing could assist the Congress and its members both in decision-making and housekeeping, it is worthwhile to take note of the attitude of the members themselves. In a survey reflecting general categories of problems as articulated by 80 members of the House of Representatives, 78% mentioned the 'complexity of decision-making; lack of information.' A growing awareness of the imperative need to do something is implicit in the growing number of bills submitted during the past several years,..."

The same report asserts that:

"It is imperative that further analysis of Congress' needs for information be performed prior to any implementation of an ADP-supported information

system. The subtleties of the requirements of the Congressmen necessitate a particularly careful approach to a systems study. The definition of Congress's needs (collective and individual), the selection of criteria to guide the analysts in their complex task, an awareness of non-technical considerations during each step of analysis and design--these factors must be acknowledged and adhered to by all persons involved in the study effort. Alternatives that are meaningful in terms of overall systems' impact, inter-element relationships, performance at all levels of Congressional operation, and cost effectiveness must be clearly defined."

The States of Florida and Illinois are already on their way to use of computers in legislative operations. Others will soon follow.

Vice President Humphrey came out strongly for computer aid to Congress in a speech before the Spring Joint Computer Conference:

"The legislative branch should itself, take the lead. Few groups of men and women in the world need more, better or more varied information than the 535 elected Representatives and Senators. Congress' committees and sub-committees and Members need push-button, preferably display-type access, to specialized 'banks' of information. Each major 'bank' should serve the interested committees--Agriculture, Appropriations, Armed Services, Banking and Currency, Foreign Relations, Interior-- and so on, down the alphabetic line."

To practically all observers it appears that Congress must very soon act decisively to acquire, test, and use automatic equipment on a large scale. The number of computers in 1956 in use by the federal government amounted to ninety. In 1965 this number had reached 2188. Not one of these is employed for the vital policy-making activities of the "First Branch of Government" -- Congress.

IV. OBJECTIONS TO CONGRESSIONAL INTEREST IN COMPUTERS

Incredible as it may seem, there are voices raised even against experimentation and testing of computers in the legislative branch of government. The reasons for the objections are somewhat obscure, but they include several allegations:

- a) Congress itself will be automated. (Reply: Computers assist decision-making; they cannot make decisions unless they are used like dice-casting.)
- b) Computers are useless for the problems of Congress. (Reply: Computers are a form of orderly, rapid, and systematic inquiry and administration. If these qualities are not desirable in a legislature, then computers are not wanted.)
- c) Computers will give the president control of Congress. (Reply: Congress therefore should have its own system.) They will give the executive agencies control over Congress. (Reply: That is what is happening and will happen unless Congress gets its own system underway.) They will give Congressional leaders control over the members. (Reply: This depends upon how the computer systems are designed. They can work to any end.)
- d) Computers are costly. (Reply: If Congress can use them, Congress should have them. Even a minimal system should produce great savings of time and, by making supervision easier, money.) A total Congressional computer system will perhaps cost one hundred million dollars annually fifteen years from now. This would be less than one-thousandth part of the annual budget.
- e) Congress should set up the system when we know what it is all about. (Reply: True, but the only way to know is to practice and the best way to practice is on a small but increasing scale, and the time to practice is now.)
- f) Congress can afford its own experiments. (Reply: True, but years can be saved by non-Governmental experimentation. In fact, there have been many millions put in already from all sides that will go towards making the proposed experimentation a success. Moreover, there are important political, social and

and liberty questions in the use of computer systems that should not be left entirely to the kind of system that would be set up by the government. Everybody should be made aware of all of the options that are possible in the system.

- g) Congressmen are not interested in computer-assistance. (Reply: The Janda report, see Background, above, went out of print almost immediately. Numerous questions were directed at the Joint Committee on the Organization of Congress both to wonder how computers could be used and to discover advantages or express fears. A computer manufacturer's exhibit, especially held for Congressmen in early Spring of this year, was crowded by Congressmen and their staffs.

V. AREAS OF PROBABLE USE

Computer-assistance can be afforded Congressional activities in every general sector. A list of types of tasks to which computers appear adapted include the following (based on the Library of Congress report referred to above).

A. The Individual Congressman

His own Speeches File and Index Analyses of
 other leaders' speeches
 Contents of District Press
 Selected readings of interest to Congressmen
 National Media Analysis
 Constituent information
 a) on groups
 b) on his nuclear constituents
 c) statistics on district (which can also
 be compared with the general districts'
 file

B. Plus access to B,C,D.

B. The Committee or Subcommittee

Current schedule of committees' meetings and hearings
 Histories of committee action
 Exclusive file for each Committee
 Information on Federal contract awards
 Appropriations statistics and information
 Plus access to A,C,D.*

C. Each Chamber as an Entity

Current information on issues up for vote
 Post-vote analytical information
 Electronic (remote) voting by Congressmen
 Districts information (socio-economic)
 Plus access to A,B,D.*

*The individual Congressman (A) would probably restrict access to some of his own tapes.

D. The Congress as a Unit

Status of pending legislation
 Statistics on the activities of government: personnel,
 spending, subjects, including all kinds of trend data.
 Lobbyist activity information
 Direct access to legislative research
 Legal literature/information
 Automated index/catalog of congressional documents
 Payroll accounts of employees of Congress
 Up-to-date Legislative telephone directory (by
 direct relay from national social science data
 banks as at the University of Michigan and
 Yale University.)
 Public Opinion poll data (national, state, local)
 Plus access to A,B,C*

VI. AREAS WITHIN THE SCOPE OF THE PROPOSED PROJECT

The proposed project would seek to provide the following systems operating out of the offices of two Congressmen.

1. Components

- A. Congressman 'A' only system.
- B. Congressman 'B' only system.
- C. System 'C' serving both A and B.
- D. System 'D' outside--consisting of control, observation and feed-in system.
- E. Systems $X_1, X_2 \dots X_n$ -- outside systems, e.g. data banks, tied into A,B,C,D.

2. Subject Matter

- A. Speeches file and index analyses of other leader's speeches
- B. Contents of District Press
- C. Selected Readings of interest to Congressmen
- D. National Media Analysis
- E. Constituent information
 - 1/on groups
 - 2/on nuclear constituents
 - 3/statistics on district
- F. Status of pending legislation
- G. Statistics on the activities of government: personnel, spending, subjects, including all kinds of trend data.
- H. Lobbyist activity information
- I. Automated index/catalog of congressional documents
- J. Public Opinion poll data (national, state, local)
- K. Current schedule of committees' meetings and hearings
- L. Histories of committee action
- M. Appropriations statistics and information

*The individual Congressman (A) would probably restrict access to some of his own tapes.

NOTE: The degree to which any subject or operation will be completely automated will vary greatly. Thus, a complete automatic analysis of contents of the district press would be impossible within the limits of the proposed research; also the history of committee action could be read into the system only to the extent necessary to show what might be done. The actual use of the automated material will of course be limited by the scope of the project: for example, it cannot be expected that the system will give the congressmen chosen much of a personal advantage although it might indicate to those congressmen (and all others) how the system would be more useful if fully applied.

VII. SELECTION OF PARTICIPANTS

A. Scientific personnel

1. Supervising Committee (possible)

Professor Julian Feldman: Associate Dean, Social Science Division, University of California at Irvine, formerly in Political Science and Business Management at Berkeley, sometime consultant to System Development Corporation; first person to apply keyword indexing to political science literature, conducted a selective dissemination of information experiment for the social sciences at Berkeley, contributor to Boroko (ed.) **COMPUTER APPLICATION IN THE BEHAVIORAL SCIENCES.**

Ralph Bisco: Director of Technical Services, Inter-University Consortium for Political Research and the Institute for Social Research, University of Michigan; developer of the ICPR survey data management and retrieval system, knowledgeable on both computer hardware and software, strong interests in information retrieval, graduate training was in political science.

Dr. William Kehl: Director of Computing Center, University of Pittsburgh, will become Director of the Computing Center at MIT; strong interests in retrieval of statutes and legal documents, active in project at Pittsburgh involved in retrieval of statutes on public health, knowledgeable of administrative problems in running computing centers, deeply interested in time-sharing procedures.

Professor Philip Stone: Department of Social Relations, Harvard University; pioneered in development and use of the General Inquirer, a computer program for content analysis; well-versed in information retrieval and computer programming generally.

Dr. Edward Wenk: Chief, Science Policy Research Division, Legislative Reference Service, Library of

Congress; concerned with information services for congressmen, provides desirable liaison with the Library of Congress work, has already shown interest in automation of Congress.

Professor Kenneth Janda.

Professor Alfred de Grazia.

2. Personnel (possible)

Professor Kenneth Janda, Director.

(others are not named here)

B. Congressional personnel

For obvious reasons, one Democrat and one Republican should be selected. For reasons of economy, only members of the House should be considered. Further selection of individuals should be based on several suggested criteria, which are given below in order of decreasing importance.

1. Interest in and support of the project: We definitely want to work with congressmen who are sympathetic to the goals of the project and who will give us complete cooperation. One way to identify such congressmen is through previous statements of support for information processing aids in government. Another is to inquire first-hand of likely candidates.

2. Not possessing leadership status in the House: The pilot project's information system should be judged solely on its merits in solving some of the information problems confronting individual congressmen. Therefore it should be tied to the activities of the typical congressman, and the success of its performance should not be confounded with the prestige and effectiveness of anyone in a leadership position. The Speaker, floor leaders, whips, conference or caucus chairman, steering committee chairmen, and standing committee chairmen ought to be declared ineligible for selection.

3. Election to congress no later than 1962: This criterion insures that we select congressmen with at least two full terms of service by 1967 and at least two experiences running for re-election.

4. Not coming from a completely "safe" constituency: In view of the fact that about 80% of the congressmen received more than 55% of the vote in 1964, standards of competitiveness cannot be very severe. Perhaps a percentage plurality of 60% or less would suggest sufficient competition at the general election stage.

5. Committee assignment: Most committees would appear to have an obvious place for data processing application. Perhaps those that do not are Rules, Un-American Activities, District of Columbia, Merchant Marine, Judiciary, and Post Office. Any other assignments seem acceptable.

C. Administrative support

American Enterprise Institute for Public Policy Research, which sponsored Project Politist, that produced Congress: First Branch of Government, and which produces regularly legislative Analyses for Congress. AEI offices in the American Psychological Association Building are adequate to house the project.

VIII. Costs of the Research

Supervising Committee	\$25,000
Director of Research	15,000
Associate Director of Research for Programming	15,000
Associate Director of Research for Subject Matter and Con- gressional Information	15,000
Design and other consultants	20,000
Data Gathering	80,000
Data Processing	70,000
Equipment lease and purchase	40,000
Operating personnel, clerks, etc.	30,000
Film Production	30,000
Publication	25,000
Miscellaneous and Contingency	20,000
Overhead (including space, secretarial, phone, etc.)	30,000
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TOTAL	\$415,000

IX. RESULTS AND THEIR DISSEMINATION

A final report of the project's method and findings will be published two years following the inception of the study.

A popularization of the report will be prepared for wide dissemination to the press, Congress, the states, libraries, the computer industry, and the public.

The computer systems themselves will be on exhibit to Congressmen and selected interested parties under actual operating conditions.

Motion picture films will be made of the processes.