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- mr Lewis Blair (Chr)
mr Sol Sherr (moderator)
mr John Edgbert

REMARKS

THE HONORABLE HUBERT H. HUMPHREY

THE WASHINGTON D.C. CHAPTER

SOCIETY FOR INFORMATION DISPLAY

WASHINGTON, D.C.

MAY 27, 1969

We are here today to share in inventing a better future for mankind.

"Futurology", as it has been called, need not be an academic exercise. It can be the launching point for pragmatists determined to build a better world.

The "games computers play" indicate that man might successfully make a mathematical model of a world of peace, of progress, of prosperity, of plenty.

Computers have enabled man to simulate voyages to the stars -- and, at last, in Apollo 11, he will bring the scenario into reality. A decade of planning -- 1960 to 1970 -- has enabled us to reach this point -- to accomplish unprecedented goals in the physical and engineering sciences. Now we must plan in the next decade to use our emerging science and technology -- both physical and social -- in ways that uplift the human condition.

"Intellect annuls fate," Ralph Waldo Emerson wrote. The brain can nullify any form of human bondage -- bondage to fear, to disease, to premature death, to ignorance, to deprivation, to war.

The presence here today of so many distinguished scientists and technicians from overseas attests to our mutual desire to exchange the best within our capacity for the solution of common probems.

This international cooperation in information science is not just a recent phenomenon. Eleven years ago as Chairman of a U.S. Senate Sub-Committee, it was my privilege to be a part of what might be termed the "first wave" of the international information revolution.

I proposed at that time that we replace the "horse and buggy" techniques of manual indexing, abstracting, storage, retrieval and dissemination of information by setting up national and international electronic information networks.

I suggested, too, a National Institute of Mathematics, together with other specialized Institutes in the physical sciences.

And I proposed a U.S. Department of Science -- not as a centralized monolith, but as a rational "home" for many widely-scattered research programs which did not have to be housed in mission-oriented cabinet departments, such as Defense.

Since then, enormous strides have been made in information science, and the pace of discovery has accelerated.

But the executive branch of the U.S. Government is just beginning to reorganize its widely dispersed science activities and it has yet to make significant use of systems engineering in fields other than military and space science.

Two years ago when Fortune magazine looked at 'The Road to 1977", it commended the "systems approach" as "the greatest advance in the art of government since the introduction nearly a hundred years ago of a civil service based on competence."

But the application of this approach in meeting the great domestic problems of our time has proceeded at a snail's pace. The delay is usually attributed to the "budgetary pinch" -- and another reason commonly given is the shortage of skilled, inter-disciplinary manpower.

But the real problem is simply this -- the failure to set proper priorities.

I urge that the Congress and the executive branch mobilize task forces of systems engineers to come to grips -- in experimental pilot programs -- with each of the most pressing problems of our time, especially the crises in our nation's cities.

Crises in such areas as crime, welfare, health care, and environmental pollution cannot be solved by the patchwork of narrow-minded specialists with tunnel vision.

Thus, the answer to the traffic congestion which paralyzes virtually every major city in our country today is not just to build more freeways or more parking lots, or install more traffic lights or recruit more policemen or give out more tickets, but to restate the overall problem in its fullest dimensions and examine every possible alternative and combination of alternatives -- their costs, their effectiveness -- in a bold and streamlined system.

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By sheer necessity, our crowded skyways have applied systems technology at least to air traffic control. The number of airline passengers has more than tripled in 10 years -- it will double again by 1975 and triple by 1980. To move that many people, as well as baggage and general cargo efficiently and safely, is a monumental challenge to advanced systems technology.

Airline collisions and other crashes are the most dramatic illustrations of a failure within the system. But every day in other realms there are literally millions of other failures -- more subtle, less publicized, but often tragic in cost to society.

For example, we see a law enforcement and penal system which generally does not deter crime, which is so ineffective it solves only a small proportion of reported crimes. When criminals are caught, tried and convicted, the system is still almost totally ineffective in rehabilitating them.

NDEA SSSA

Within the nation's ghettoes, we see such inferior education that slum children fall further and further behind their more fortunate neighbors, and drop out of school at rates which doom vast numbers to life-long second-class existence.

We see welfare programs for the indigent which offer little or no incentive, much less means, to help break the cycle of dependence from generation to generation.

In the field of health, we see millions of patients fall victim to preventable disease or seek medical help long after the first symptoms appear. Grimly, they then thread their way through a maze of costly services, their chances of first-rate medical care dependent more on their bank account, their location, and their luck than on scientific research findings which pile up in a few modern University centers.

All the while, the overall quality of urban man's life deteriorates as the environment is ravaged by pollution, contamination and noise.

It is for good reason that the Congress has received proposals for an Ecological Commission to study systematic redress of environmental imbalances.

But to meet its own expanding responsibilities, the Congress should strengthen its resources for informed decision-making.

Computer technology can surely assist the Congress in mastering the almost $200 billion budget, and in coping with society's interrelated problems which defy the traditional boundaries of Committee jurisdictions.

So, I look forward to the day when every Senator's and Congressman's office, as well as Congressional committees and subcommittees will have their own terminal connection to a Federal Information Bank. By teletypewriter, by light pen and video screen, the people's representatives will be able to draw instantaneously upon the deposits of facts which are needed for effective evaluation and decisions.

Another frontier of opportunity is the graphic, large-scale presentation of public problems. The Pentagon finds indispensible for purposes of command and control -- a "War Room" -- with giant blinking maps and moving symbols, fed by computers.

So, too, the Congress should consider establishing a giant, computerized display, so that visitors from all over America might see -- at one glance -- the panoramic scope of changing problems and opportunities confronting the nation.

The same concept could be applied at United Nations Headquarters in the form of a "Peace Room". There, both diplomats and onlookers could grasp in one view the enormous range of ever-changing problems -- security, economic, political and others facing mankind.

In our own land, from grade school onward, we should educate our children so they are at home with inter-disciplinary man-machine teamwork.

The classroom of tomorrow can be more than the site of teaching machines and individualized instruction. It can be a social laboratory in which student teams deal with real-life problems of man and his environment.

Every part of society can be linked in an information grid which transmits voices, data, pictures, live images, diagrams. What is more, the communication can be two-way -- by dial and touch-tone telephone, television and especially cable television with feedback buttons. The classroom, the home, the office, the store, the factory, the bank are tomorrow's input-output centers -- in ways we are only beginning to develop.

To be sure, the future does not offer unmixed blessings. Perils of monopoly or excessive power or infringement of privacy do loom ahead, but so also do unprecedented promise and hope and opportunity for building a better world.

The impetus to achieve great goals from the judicious use of software and hardware should come in large part from you -- the pacesetters in information science.

I urge, therefore, that each and every professional and technical organization which is represented here, organize a task force with the responsibility to help interpret and apply information science to the solution of society's ills.

America could surely use what might be called a computer corps. It would be composed of both skilled manpower and computer time donated to voluntary agencies and to social service institutions.

The existence of a computer corps would not in any way relieve governments -- Federal, State or local -- of the responsibility to pay their way in utilizing the new technology. Public research and development budgets in human and environmental engineering will have to be increased.

No city in the nation is today investing as much as 1% of its budget in research and development -- a statistic which would be intolerable in any modern corporation.

Instead, the cities keep applying band-aids to their social cancers.

"Miracle" cures are not possible, but definite improvements are not only feasible but crucial.

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Let us reach for the stars in human goals -- just as we have reached the stars in physical conquest.

Five years ago, Norbert Wiener said, 'The future offers very little hope for those who expect that our new mechanical slaves will offer us a world in which we may rest from thinking."

Thinking -- boldly, clearly, systematically -- and bringing our thoughts into reality -- must be our program for tomorrow.

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~~SOCIETY FOR INFORMATION DISPLAY~~

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~~MAY 27, 1969~~

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This ~~international~~ cooperation in information science is not just a recent phenomenon. Thirteen years ago as Chairman of a U.S. Senate Sub-Committee, it was my privilege to be a part of what might be termed the "first wave" of the ~~international~~ information revolution.

I proposed at that time that we replace the "horse and buggy" techniques of manual indexing, abstracting, storage, retrieval and dissemination of information by setting up national and international electronic information networks. I suggested, too, a National Institute of Mathematics, together with other specialized Institutes in the physical sciences.

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Since then, enormous strides have been made in information science, and the pace of discovery has accelerated.

But the executive branch of the U.S. Government is just beginning to reorganize its widely dispersed science activities and it has yet to make significant use of systems engineering in fields other than military and space science.

Four years ago when Fortune magazine looked at "The Road to 1977", it commended the systems approach as "the greatest advance in the art of government since the introduction nearly a hundred years ago of a civil service based on competence."

But the application of this approach in meeting the great domestic problems of our time has proceeded at a snail's pace. The delay is usually attributed to the budgetary pinch -- another reason commonly given is the shortage of skilled, inter-disciplinary manpower. (plenty available)

But the real problem is simply this -- the failure to set proper priorities. — Cost-no program — No planning congress — No Nat. Growth Policy

I urge that the Congress and the executive branch mobilize task forces of systems engineers to come to grips -- in experimental pilot programs -- with each of the most pressing problems of our time, especially the crises in our nation's cities + rural areas.

Use our Aero-Space Personnel -

Crises in such areas as crime, welfare, health care, and environmental pollution cannot be solved by the patchwork of narrow-minded specialists with tunnel vision.

Thus, the answer to the traffic congestion which paralyzes virtually every major city in our country today is not just to build more freeways or more parking lots, or install more traffic lights or recruit more policemen or give out more tickets, but to restate the overall problem in its fullest dimensions and examine every possible alternative and combination of alternatives -- their costs, their effectiveness -- in a bold and streamlined system.

In fewer than half a dozen cities on the North American continent has there even been an attempt to apply a digital computer to overall traffic management. In only one -- Toronto, Ontario -- is there control over an entire metropolitan area.

By sheer necessity, our crowded skyways have applied systems technology at least to air traffic control. The number of airline passengers has more than tripled in 10 years -- it will double again by 1975 and triple by 1980. To move that many people, as well as baggage and general cargo efficiently and safely, is a monumental challenge to advanced systems technology.

Airline collisions and other crashes are the most dramatic illustrations of a failure within the system. But every day in other realms there are literally millions of other failures -- more subtle, less publicized, but often tragic in cost to society.

For example, we see a law enforcement and penal system which generally does not deter crime, which is so ineffective it solves only a small proportion of reported crimes. When criminals are caught, tried and convicted, the system is still almost totally ineffective in rehabilitating them.

Within the nation's ghettoes, we see such inferior education that slum children fall further and further behind their more fortunate neighbors, and drop out of school at rates which doom vast numbers to life-long second-class existence.

We see welfare programs for the indigent which offer little or no incentive, much less means, to help break the cycle of dependence from generation to generation.

In the field of health, we see millions of patients fall victim to preventable disease or seek medical help long after the first symptoms appear. Grimly, they then thread their way through a maze of costly services, their chances of first-rate medical care dependent more on their bank account, their location and their luck than on scientific research findings which pile up in a few modern University centers.

Rural America
Population growth

All the while, the overall quality of urban man's life deteriorates as the environment is ravaged by pollution, contamination and noise.

It is for good reason that the Congress has received proposals for an Ecological Commission to study systematic redress of environmental imbalances.

But to meet its own expanding responsibilities, the Congress should strengthen its resources for informed decision-making.

Computer technology can surely assist the Congress in mastering the ~~almost~~ over $200 billion budget, and in coping with society's interrelated problems which defy the traditional boundaries of Committee jurisdictions.

So, I look forward to the day when every Senator's and Congressman's office, as well as Congressional committees and subcommittees will have their own terminal connection to a Federal Information Bank. By teletypewriter, by light pen and video screen, the people's representatives will be able to draw instantaneously upon the deposits of facts which are needed for effective evaluation and decisions.

Another frontier of opportunity is the graphic, large-scale presentation of public problems. The Pentagon finds indispensible for purposes of command and control -- a "War Room" -- with giant blinking maps and moving symbols, fed by computers. So, too, the Congress should consider establishing a giant, computerized display, so that visitors from all over America might see -- at one glance -- the panoramic scope of changing problems and opportunities confronting the nation.

The same concept could be applied at United Nations Headquarters in the form of a "Peace Room". There, both diplomats and onlookers could grasp in one view the enormous range of ever-changing problems -- security, economic, political and others facing mankind.

In our own land, from grade school onward, we should educate our children so they are at home with inter-disciplinary man-machine teamwork.

The classroom of tomorrow can be more than the site of teaching machines and individualized instruction. It can be a social laboratory in which student teams deal with real-life problems of man and his environment.

I AM CONSIDERING THE FEASIBILITY OF ESTABLISHING A "HUMPHREY COMPUTER CORPS." WE COULD MOBILIZE TASK FORCES OF SYSTEMS ENGINEERS AND DATA INPUT EXPERTS TO DEVELOP PILOT PROGRAMS FOR HEALTH, EDUCATION, WELFARE, TRANSPORTATION, HOUSING, URBAN-RURAL DEVELOPMENT, AND ENVIRONMENTAL PROTECTION.

SYSTEMS ENGINEERS ALONG WITH SOCIALOGISTS, PSYCHOLOGISTS, ECONOMISTS, AND OTHER SUBJECT MATTER EXPERTS, MUST WORK TOGETHER TO PRESENT VIABLE PLANNING AND PROGRAMMING ALTERNATIVES TO POLICY MAKERS. IT MUST BE DONE AND DONE SOON.

SOCIETY INCREASINGLY IN CONNECTED BY COMMUNICATION LINKAGES.

Every part of society can be linked in an information grid which transmits voices, data, pictures, live images, diagrams. What is more, the communication can be two-way -- by dial and touch-tone telephone, television and especially cable television with feedback buttons. The classroom, the home, the office, the store, the factory, the bank are tomorrow's input-output centers -- in ways we are only beginning to develop.

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I urge, therefore, that each and every professional and technical organization which is represented here, organize a task force with the responsibility to help interpret and apply information science to the solution of society's ills.

America could surely use what might be called a "computer corps." It would be composed of both skilled manpower and computer time donated to voluntary agencies and to social service institutions.

The existence of a computer corps would not in any way relieve governments -- Federal, State or local -- of the responsibility to pay their way in utilizing the new technology. Public research and development budgets in human and environmental engineering will have to be increased.

No city in the nation is today investing as much as 1% of its budget in research and development -- a statistic which would be intolerable in any modern corporation.

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Remarks
The Honorable H H H
The Washington D.C. Chapter
Society for Information Display
Washington, DC
May 27, 1969

DRAFT FOR M. E. D. I. A.
May 27, 1969

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in the physical and engineering sciences, ~~now, let us~~ plan for the next decade ~~for fullest use of~~ emerging technology -- both physical and social -- in ways that ~~so that the life and behavioral sciences can~~ uplift the human condition.

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But the real problem is simply this -- the failure to set proper priorities. I urge that the Congress and the Executive Branch

place high on the agenda, the mobilizing of task forces of systems engineers to come to grips -- in pilot programs -- with each of the most pressing human problems of our time, especially the crises in our nation's cities.

The transportation crisis, the crime crisis, the welfare crisis, the hospital crisis, the waste disposal crisis and many others will not be solved by the patchwork of narrow-minded specialists with tunnel vision.

Thus, the answer to the traffic congestion which paralyzes virtually every major city in our country today is not just to build more freeways or more parking lots, or install more traffic lights or recruit more policemen or give out more tickets, but to re-state the overall problem in its fullest dimensions and examine every possible alternative and combination of alternatives -- their costs, their effectiveness -- in a bold and streamlined system.

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But to meet its own expanding responsibilities, the Congress should strengthen its resources for informed decision-making.

Surely
Computer technology can assist the Congress in mastering the almost $200 billion budget, and in coping with society's inter-related problems which defy the traditional boundaries

THE VICE PRESIDENT
WASHINGTON, D.C. 20510

Amnesty International of the USA

ACLU

Prisoners of Conscience Shoreham

Frances Biddle award

dinner

Max Kampelman

Shoreham Palladian Room

Jim Rowe

Ramsey Clark speaker

Trong Doung Dzu

(1) ~~South~~ V-Nam

Rajat Negoy

Last ~~[illegible]~~ will accept award

(2) Wale ~~Wally~~ Soyinka

Nigerian playright

collaborated with Biafra

(3) Laisa Daniel

Russian Criticized Czech Invasion

4443

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at United Nations Headquarters in the form of a "Peace Room". There, both diplomats and onlookers could grasp in one view the enormous range of ever-changing problems -- security, economic, political and other facing mankind.

This and a myriad of other information can be disseminated via Satellite communications in today's "global village". What awesome opportunities we possess in working with industrialized as well as developing nations to conquer illiteracy, ignorance and other problems with the aid of new technology.

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To be sure, the future does not offer unmixed blessings. ~~Most technical advances have involved some degree of danger of misuse or abuse.~~ Perils of ~~potential~~ monopoly or excessive power or infringement of privacy do loom ahead, but so ~~does~~ also do unprecedented promise and hope and opportunity for building a better world.

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Minnesota
Historical Society