the FINITE STRING

NEW MANAGING EDITOR   Donald E Walker has accepted the responsibilities of Managing Editor of AJCL along with those of Secretary-Treasurer of the Association   He needs time to obtain and sort the records and stocks formerly held by the Center for Applied Linguistics, but will soon be ready to provide prompt service to members and institutional subscribers

EDITORIAL BOARD CHANGES   Five new members have joined the Board   Jonathan Allen, Gary G Hendrix, C Raymond Perreault, Jane Robinson, and William C Rounds   See frames 3-5 of this fiche

FORMAT SHIFT   To conserve production money, AJCL now uses blank frames following the text of some contributions for news and other material formerly collected in The Finite String

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EDITORIAL BOARD

In accordance with a new policy adopted by the Executive
Committee of ACL at its 1976 meeting, members of the Editorial
Board are to serve three-year terms   The Editor, whose term
is certainly limited but not to three years, thanks the
members whose terms expired at the end of 1976, and welcomes
those who now join the Board

Jonathan Allen

Dr Allen is Professor in the Department of Electrical
Engineering and Computer Science and the Research Laboratory
of Electronics of the Massachusetts Institute of Technology,
Cambridge. He took his doctorate at MIT in 1968, for a thesis
on specification of prosodic features of speech from grammatical
analysis of text, after studying at Cambridge University on a
Henry Fellowship and at Dartmouth College and the Thayer School
of Engineering. He has also worked at the Bell Telephone
Laboratories

Dr Allen's main fields are man-computer interaction and
computer architecture for digital signal processing He is
concerned with speech synthesis and recognition, natural
language processing, discourse structure, and generally in the
relation of speech to linguistic structures He has published
a number of papers in these fields, and edited a book, _Scientists, Students, and Society_ (MIT Press, 1970)

Dr. Allen is Vice-president of ACL for 1977.

Gary G Hendrix

A research engineer in the Artificial Intelligence Center
of the Stanford Research Institute, Dr. Hendrix was educated at
the University of Texas. His doctorate, 1975, was in computer
science, following a master's degree in the same field and a
baccaulaureate in mathematics

Dr Hendrix's fields are natural language semantics, the
architecture of semantic networks, robot problem solving,
continuous process modeling, and temporal semantics Outside
these fields, he has worked and published in anthropology,
where he developed mathematical models of Indian cultures

C Raymond Perreault

Dr. Perrault took his doctorate at Michigan in 1975 for a thesis on augmented transition network parsers and their relation to tree-manipulating systems. His undergraduate work was in mathematics at McGill University. Dr Perrault is now Assistant Professor of Computer Science at the University of Toronto.

Dr. Perrault is a specialist in artificial intelligence and the theory of computation, and in particular in (computational) linguistics, logic, and the theory of automata and formal languages

Jane Robinson

A senior research linguist at Stanford Research Institute, Dr. Robinson was trained at the University of California, Los Angeles, where she took her doctorate in 1946 She has taught as visiting professor at Harvard and Michigan, and conducted research at the University of Michigan, the IBM Research Center in Yorktown Heights, and The RAND Corporation

Dr. Robinson, a member of Phi Beta Kappa, publishes on pure and computational linguistics. She specializes in syntax, semantics, and discourse, with a taste for case and performance grammars.

William C. Rounds

Dr. Rounds is Associate Professor of Computer and Communication Sciences in the University of Michigan, Ann Arbor He took a doctorate in mathematics at Stanford University in 1968 for a thesis on trees, transducers, and transformations. His undergraduate work was taken at Bowdoin College He taught at Case Western Reserve University before going to Michigan in 1973

Dr. Rounds's fields of interest are formal languages, automata theory, linguistic applications, logic, and programming language semantics.

Dr Rounds, a member of Phi Beta Kappa, has been a member of the Mathematical Social Science Board and a guest editor of the Journal of Computer and System Science

ALEXANDRE LJUDSKANOV

Alexandre Ljudskanov n'est plus   L'Academie des Sciences Bulgare nous apprenait recemment son deces, survenu le 2 novembre 1976.

Chercheur infatigable, il aura été actif jusqu'a l'extrême limite de ses forces, car encore en juillet dernier, apres avoir participe à COLING 76, puis à la reunion du Comite international de l'AILA, il consacrait deux jours a des seances de travail au Secretariat d'Etat avant de quitter le Canada   D'un courage indomptable devant la maladie, il n'aura permis qu'à la mort de mettre un terme a ses travaux

Son départ premature prive la linguistique computationnelle d'un de ses chefs de file internationaux   Le message qu'A. Ljudskanov avait commencé à nous livrer, suite à ses réflexions sur la traduction automatique, demeurera inachevé   Il en est ainsi de ses réflexions sur les problèmes linguistiques que pose au monde moderne la terminologie

Sur le plan international, A Ljudskanov avait su s'assurer des amitiés durables et le respect de tous, grace à son sens aigu de l'analyse critique, à sa profonde honnêteté intellectuelle et à ses qualités d'entregent

Le curriaulum vitae d'A Ljudskanov est trop long pour qu'on puisse en faire ici une mention complète, qu'il nous suffise d'en reproduire les extraits suivants

> Professeur titulaire de la chaire de linguistique générale
> à la Faculté de Philologie de l'Université de Sofia et
> directeur du groupe d'études pour la Linguistique mathéma-
> tique et la traduction automatique à l'Institut de

Mathématiques de l'Académie des sciences Bulgare, vice-président de l'Association internationale de Sémiotique et de l'Association internationale de linguistique appliquée, membre du Comité international de linguistique computationnelle

A Ljudskanov est également l'auteur de nombreux textes scientifiques portant sur la linguistique, la traduction humaine, la traduction automatique et la linguistique computationnelle, publiés en francais, en anglais, en bulgare, en russe ou en allemand

A Madame Ljudskanova et à la famille de notre regretté collègue, je désire transmettre nos condoléances les plus sincères

Le président de l'AILA,

Guy Rondeau,
Canada

LETTERS: CONCERNING IGOR MEL'CHUK

On 14 July 1976, I received "An Open Letter to Colleagues" from Dr. Igor A. Mel'cuk, a prominent Soviet computational linguist. He had sent it to me on 16 May, but it reached me only through an indirect routing. The contents indicate that Dr. Mel'cuk has been fired from his position as Senior Research Fellow of the Institute of Linguistics of the Soviet Academy of Sciences. The motivation for this action is ascribed to a letter, published in the New York Times on 26 January 1976, in which he criticized Soviet actions against Andrei Sakharov and Sergei Kovalev.

Dr. Mel'cuk asked me to make the information about his dismissal available to American scientists. On his behalf, I have written to a number of relevant periodicals asking them to publish his letter. The Executive Committee of the Association for Computational Linguistics considered this request and decided that the letter should be published, along with other relevant material, in The Finite String. Accordingly, I am attaching, in order, a copy of the letter he transmitted to me, dated 16 May 1976; the original New York Times letter of 26 January 1976; a short item in the March 27 New York Times describing his firing; a letter to the editor in the 10 April New York Times from Chomsky and Evers expressing their concern; two articles, one by Robert Toth published in the 2 June 1976 Los Angeles Times and one by Christopher Wren published in the 16 June 1976 New York Times; and a letter to the editor by Igor Troyanovsky, a Soviet journalist, published in the Los Angeles Times on 7 August 1976, which presents the Soviet view of the action taken against Mel'cuk.

The letter Dr. Mel'cuk sent me also has appeared or will appear, with various amounts of editing, in the Bulletin of the Linguistic Society of America, in the Los Angeles Times, in the New York Review of Books, in the Bulletin of the American Association of University Professors, and possibly in other publications.

Cordially,

Donald F. Walker
Artificial Intelligence Center
Stanford Research Institute
Menlo Park, California 94025

AN OPEN LETTER TO COLLEAGUES

Dear Colleague:

On March 25, 1976, at a session of the Faculty Board (or, perhaps, the Scientific Council: Učenyj Sovet) of the Institute of Linguistics, Soviet Academy of Sciences, Moscow, I was not re-elected senior research fellow, the position I had been holding up to the said date. (In accordance with regulations any research fellow of any Soviet Academy institution is supposed to be re-elected by the respective Faculty Board every three years—for junior fellows or every five years—for senior fellows, which happens to be my case. It is ordinarily quite a routine procedure which as a rule should not even be attended by the person concerned. In case he is not re-elected the researcher is to be fired by the administration in no more than a year after the decision by the Faculty Board took place).

The Faculty Board met 24 members being present: Victoria N. Yartseva (the director of the Institute of Linguistics), Yurij S. Eliseev (the assistant director), Valentin A. Efimov (the scientific secretary), Vladimir D. Arakin, Nikolaj A. Baskakov, Trofim A. Bertagaev, Nikolaj S. Čemodanov, Yunus D. Deseriev, Ninel Z. Gadzieva, Myrrha M. Guxman, Georgij A. Klimov, Renat G. Kotov, Gennadij V. Kolsanskij, Muxammed A. Kumaxov, Klara E. Majtinskaja, Sergej A. Mironov, Kenesbaj M. Musaev, Vera S. Rastorgueva, Natalja A. Sljusareva, Aleksandr D. Svejtser, Edgem R. Tenisev, Oleg N. Trubacev, Said M. Xajdakov, and Igor' F. Vardul'. Here are the results of the secret ballot: 19 votes against my re-election, 2, for, and 3 have been considered not valid (which essentially means abstention). In view of such a decision of the Faculty Board, April 8 the assistant director of the Institute, Yurij S. Eliseev informed me that I am fired beginning from May 18 this year.

I have been with the Institute of Linguistics since 1956. During this period I have authored and published more than 150 linguistic works, including several books; many of my papers are translated and published in the USA, France, Spain, West Germany, Poland, Hungary, and East Germany. Many times I was invited to take part in international linguistic conventions, to present lectures, to serve on editorial boards of some Western linguistic periodicals, etc.

Yet the Faculty Board did not judge me worth holding my job. The only reason explicitly stated was my letter published in The New York Times on January 26, 1976. The letter expressed my disagreement with the campaign waged against Andrej D. Saxarov by the Soviet press as well as my protest against the arrest and the trial of the eminent Soviet scientist, biophysicist Sergej Kovaljov who has been sentenced to 7 years in prison and 3 more years in exile (under purely political accusations).

Yet the Soviet Union ratified the International Pact on Civil and Political Rights (adopted December 16, 1966, by the XXI Session of the General Assembly of the United Nations) which--in accordance with the Soviet legislation (see Art. 569 of the Civil Code of the Russian Soviet Federative Socialist Republic)--has become eo ipso a Soviet law. Art. 19 of the said Pact gives me "a full right to freely express my opinions including the freedom of disseminating any kind of information and ideas independently of national borders--orally, in writing or by means of the press." Consequently, addressing my letter to The New York Times I have by no means violated the laws of my country. (Even if it were not the case I should have been persecuted by the Soviet justice and not, for that matter, by the Faculty Board of an academic institution!)

Contrary to what has been presented in the preceding paragraph, those taking the floor at the Faculty Board meeting said: the letter by I. Mel'cuk "besmirches our country and covers with shame any research worker,... such an action is inadmissible not only in the scientific community of the Institute, but in the community of all Soviet people as well" (V. Yartseva, the director);* "slandering against our country I.A. Mel'cuk does serious harm not only to it but also to all progressive mankind... so that his hostile action makes impossible further presence of I. Mel'cuk in the Institute of Linguistics" (M. Guxman); "it is in vain that I.A. Mel'cuk refers to some obscure [sic!] pacts and tries to artificially limit the range of criticisms aimed at the 'moral-political' image (moral'no-politiceskij oblik) of himself as a Soviet scholar" (Yu. Eliseev, the assistant director); "the position of I. Mel'cuk borders on war propaganda,... and all his behavior produces a very bad impression: we hoped to hear words of repent but what we actually heard is a firm conviction (N. Gadzieva), etc. Those speeches were summed up in the second address by V. Yartseva: "The world is split in two, and I. A. Mel'cuk turns for help to our enemies!"

It should be emphasized that in the Institute where I have worked for almost 20 years and where I thought I had enough friends since I maintained with many not only professional but also warm human relations for a long time, there was no one who would side with me or at least say a few words in my favor. More than that: as far as I know, no one of the Soviet scientists (my personal friends excluded) found it possible or necessary to defend me in some form they would consider appropriate.

The purely political character of my firing makes it practically impossible for me to find another job anywhere in the USSR--the more so for even before the above-mentioned decision by the Faculty Board my position in the Soviet science was a very difficult and precarious one. For several years I have had practically no possibility to publish my

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* The quotations are given from a tape recorded during the above speeches, which is in my possession.

papers in leading Soviet linguistic journals. (The appearance of each of my papers required no less than a heroic deed on the part of some member of editorial board). The second volume of my monograph Toward a Theory of Linguistic Models of the Meaning<=>Text Type (the product of many years of painstaking work) waited for publication more than 8 years and failed to be, after all, published. I was and am forbidden to teach, to take part in many scientific conventions, to go abroad for contacts with Western colleagues. Immediately after the appearance of my letter in The New York Times Soviet linguistic periodicals and publishing houses began suppressing references to my works, acknowledgements by other authors mentioning my name (e.g. Sergej Ya. Fokin, head of the editorial staff of Naucnotexniceskaja informacija, National Institute of Technological Information—VINITI, Moscow) and even my name as the editor or translator (as did Prof. Nikolaj S. Cemodanov and Klavdija T. Bogdanova of the Progress publishers).

Under such conditions and having no permanent job I am left without the least possibility for normal continuation of my linguistic research. Which amounts to putting me before a tragic choice: either a meaningless existence in my country, which needs not my work and effort, or emigration meaning the lifelong separation (such is the Soviet law) from my native land as well as from my relatives, friends, and colleagues.

I understand quite clearly that my situation cannot even be compared with the terrible lot of those people who, deprived of their freedom, are serving their terms in Soviet prisons and labor camps for political reasons and whose health and perhaps life are in danger. But still I feel I have the moral right to address the public opinion since it is not my personality that is of importance here. My case is but a modest yet very vivid illustration of the moral life of the top layer of Soviet intellectual society—of what used to be known as the famous Russian intelligentsia. It is an additional touch to the monstrous chronicle of felonies and base toadyism which were and are so easily practiced in the USSR by many persons holding scientific degrees and often posts of responsibility in the Soviet science hierarchy.

The aim of this letter is too make its readers seriously ponder once again over the fate of Soviet scholars and scientists forced to choose between low-down behavior and emigration. (Bright times now! not so long ago they had to choose between felony and a bullet or, in the best case, years behind the barbed wire). Do not forget, please, that each of them with the exclusion of a few active militants like Andrej D. Saxarov or Igor R. Safarevic is either a victim, or a hangman, or—which is perhaps the most dangerous thing—a tacit accomplice of hangmen.

I.A. Mel'cuk
40/17, Bajkal'skaja Str., flat 113, Moscow 107207, USSR
(Formerly Senior Research Fellow, Institute of Linguistics, Academy of Sciences of the USSR).

(New York Times, January 25, 1976, Part IV, page 16)

Sakharov: World Symbol of Redemption

To the Editor:

I am writing this letter to a Western newspaper because I am not allowed to express my opinions in the U.S.S.R. My subject is the great Soviet physicist and Nobel Prize winner Andrei Sakharov.

Except for party- or government-inspired press attacks on him, in my country the silence over Sakharov is complete. But the West should know that there are many people here—and I am one of them—who strongly disapprove of the dirty campaign waged against the man who is perhaps the only absolutely honest person among our eminent scientists.

The most absolute lack of overt support for Sakharov among highly placed Soviet scientists and scholars clearly demonstrates that there is no such thing as the Russian intelligentsia any more. If Sakharov's colleagues and former friends, such as Khariton and Zee'dovic (not to speak of the sixty other academicians and professors) signed the "letter" denouncing Sakharov, it can mean only that moral considerations are fully excluded from the mentality of those who should base the whole of their activities and lives on moral principles.

It is difficult to compare different ordeals, but last month a tribunal in Vilnius sentenced to seven years' imprisonment plus three years of exile the biophysicist Sergei Kovalev, a member of Sakharov's Committee for Human Rights. For a scientist of more than forty years of age this means death—spiritually and mentally, if not literally. Not one Soviet scientist protested. The members of the Soviet Academy of Sciences have become soulless puppets, devoid of convictions and conscience.

As for the West, I cannot understand the attitude of your scientists and scholars. Perhaps they do not fully realize that a powerful nation of 250 million, guided by the unscrupulous and having at its disposal first-class brains with no hearts and souls, may prove highly dangerous.

The examples of Cuba, Czechoslovakia, Laos, Cambodia, and Angola show the impotence of the West in the face of the Communist machine. And real freedom and human rights in the Soviet Union are as important (if not more important) to the world as they are to us.

Please do not forget that there are many here kept in jails, labor camps and prison psychiatric hospitals who are suffering also for your freedom. Sakharov is for us—and should be for the world—a symbol of redemption.

I.A. Mel'cuk   Moscow, Jan. 4, 1976

(New York Times, March 27, 1976, page 6)

Soviet Linguist Is Ousted For a Letter to The Times

MOSCOW, March 26(AP)—Igor A. Melchuk, a dissident Soviet linguist, said today that he had lost his job because of a letter he wrote to The New York Times defending Andrei D. Sakharov, the Soviet physicist and human rights activist.

Mr. Melchuk said he appeared yesterday before the faculty board of the the Institute of Linguistics to answer for himself and his "moral political image."

The board members charged that his letter, printed Jan. 25, "besmirched our country" and committed "a slander against our way of life," Mr. Melchuk said. He was ousted from his post as a senior research fellow by a secret ballot, 19 to 2, with three abstentions.

The vote does not automatically remove him from the institute, Mr. Melchuk said, but he doubts that he will be offered a new position.

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(New York Times, April 10, 1976, page 26)

Moscow vs. a Linguist

To the Editor:

According to a March 27 news story, the well-known Russian linguist Igor A. Mel'cuk has been dismissed from his position at the Linguistic Institute in Moscow, where he has worked for the past twenty years. This represents a severe intensification in the harassment of Mel'cuk, who has been attacked in the past for his defense of other Soviet citizens, including Daniel and Sinyavsky.

The latest act of repression follows Mel'cuk's outspoken support for Sakharov and Kovolev, both members of the Russian Committee for the Rights of Man, and may have been a direct result of a letter of Mel'cuk's published in The Times [Jan. 25].

The loss of employment is serious indeed, and may be a prelude to worse. As members of the international community of linguists we feel compelled to express our great concern.

Noam Chomsky, Arnold Evers   Cambridge, Mass., March 30, 1976

The writers are, respectively, professor of linguistics at M.I.T. and chairman of the Dutch Linguistics Society.

(Los Angeles Times, June 2, 1976, Part I, pages 1 & 7)

Soviet Linguist Fired for 'Ideological Mistakes'

By Robert C. Toth

MOSCOW—On the face of it, the scientific council of the Institute of Linguistics of the Soviet Academy of Science was meeting to review the work of a senior researcher before his recertification to his post. Normally it would be a matter of form.

But in reality, the senior scientist—Igor Alexandrovich Melchuk, said by U.S. and Soviet linguists to be the best in his field—was being tried behind closed doors for political nonconformity.

The secretly taped proceedings of March 25 show what criteria his judges used. A transcript of the tape has been obtained by The Los Angeles Times and its authenticity has been verified.

"It doesn't matter if your [scientific] theories are successful or not," declared one council member. "Scientific and political positions are not of the same importance."

"Mistakes in scientific work are one thing, but ideological mistakes," insisted another, "are quite another thing. They are simply awful... and must be judged most harshly."

"Evaluating the work of a Soviet scientist cannot be narrowly academic," said a third, citing official rules for certifying scientists that require "definite political and moral standards as well."

"Igor. Alexandrovich is trying to claim that it is a personal matter, this statement against Soviet ideology," said a fourth. "That is impermissible."

And so it went, focusing on his political faults and virtually ignoring his scientific capabilities. Melchuk, 43, who has been compared to the outstanding U.S. linguist Noam Chomsky, was fired from the institute. His books were to be withdrawn from libraries. Other books footnoting his works must be revised.

Melchuk knew well the limits of the nonconformity permitted in the Soviet system and he stepped beyond them.

His career has been marked both by academic brilliance and difficulties in his personal relationships. "Outspoken," admitted a friend; "impudent," complained a judge.

He had trouble entering graduate school despite a straight-A average at the university. His graduate advisor was fired for associating with the late Nobel laureate Boris Pasternak, the dissident

author, and Melchuk wrote a letter to the higher education ministry defending the professor.

He then left graduate study to work on language translation by machine. A series of articles on the subject earned him a candidate degree (between masters and doctors) in an unprecedented recognition of his abilities.

But he was not permitted to defend his doctorate thesis, for by that time he had signed other letters. One had asked "understanding" for dissidents Yuli Daniel and Andrei Sinyavski in 1966; another protested the 1968 Soviet invasion of Czechoslovakia.

Then he recanted.

"Yes," Melchuk acknowledged during the March trial. "I expressed my regret for past statements. Frankly, I did so only because I was afraid. I acted cowardly. But I'm tired of fear. I have no more fear."

The recanting had done him little good. At least seven times between 1971 and 1975, the transcript shows, he was not allowed to travel abroad to scientific conferences, even when the conference offered to pay his way.

"We did not send Igor Alexandrovich abroad," said Victoria N. Yartseva, institute director, "because every Soviet scientists represents our system and our Soviet ideology abroad, and Igor Alexandrovich always emphasizes: 'It's mine, it is my personal opinion'... Either Igor Alexandrovich is with us or he is with them."

Professionally, Melchuk had more than 150 publications to his credit in 20 years. A West German publishing house offered in 1971 to publish his major work, "Sense:Text," but the Soviet linguistic institute refused permission. The first volume of that work appeared here in 1974 but the second half, which should have appeared simultaneously, still has not come out and is now badly outdated.

Linguistics ranges from the study of grammar and language origins to information and communication theory and learning. Melchuk's book, said an American linguist who read it all, "is a masterpiece of organization and comprehensiveness.

"Had it been published promptly when written ... the result would have been a classic, if not a bible, of linguistic theory. It is an ambitious and explicit attempt to integrate the Soviet analytical approach and the American descriptive approach at a time when synthesis of the two is in the air."

Another American linguist said, "He has not blazed new frontiers in the sense that Chomsky has. On the other hand Melchuk is by far the best Soviet linguist."

Melchuk abandoned his several-year public silence with a letter to the New York Times defending Nobel Peace Prize winner Andrei D. Sakharov. It appeared January 25.

"I am not allowed to · express my opinions in the U.S.S.R.," he wrote. Many Soviets "strongly disapprove the dirty campaign" against Sakharov who is "perhaps the last honest scientist" here, he continued.

Members of the science academy were "soulless puppets," he wrote. "A powerful nation of 250 million, guided by the unscrupulous and having at its disposal first-class brains with no hearts, may prove highly dangerous," he warned. Cuba, Czechoslovakia, Vietnam and Angola show Western impotence, he concluded.

Whatever its merits, that letter apparently had not been read by any of Melchuk's judges. A voice from the audience, from which "outsiders" were barred, asked to know its contents. The institute's deputy director replied that he had not seen it. "but so far as I know it is written in support of Sakharov and reduces to three points," which he recounted accurately. Melchuk then offered to read and discuss the letter with anyone, but only after the council's decision on his future. "I consider it impermissible to mix the question of my recertification with my letter.

He cited a United Nations resolution of 1966, ratified by the Soviet Union and incorporated into Soviet law, that guarantees the freedom of expression, within a state or across borders.

But institute deputy director Yuri S. Eliscev countered that the certifying rules for Soviet scientists set political as well as scientific standards, and he brushed off the international treaty.

Criticism of Melchuk rose in pitch toward the end of the session.

Ideological mistakes, said M. Khaidov, trade union member of the scientific council, "must be judged most harshly ... Igor Alexandrovich, you stand on the cliff. We wanted to pull you away."

"You become the puppet in somebody's dirty hands!" shouted institute director Yartseva.

"I had hoped to hear words of repentance but I heard only deep conviction," said Ninel Z. Gadrieva, the People Control Commission's representative on the scientific council: "Your action borders on the propaganda war and under the Soviet constitution, that's a crime. It hurts me but we have lost you."

"If you tried out there in the West, in the FRG [West Germany], for example, to stand up with Communist propaganda," said a pensioned professor on the council, "they wouldn't keep you on the state payroll for one day."

"For many years we tried to save you, Igor Alexandrovich," concluded Yartseva, "but you treated us badly. You don't respect our collective. We could help you remain with us but you don't want it ... We know very well that world is divided into two parts, and you appeal to our enemies."

"I think that this open discussion has been useful," she then said abruptly.

Melchuk asked for a final word. Yartseva refused. "Everything is clear," she said.

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(New York Times, June 16, 1976, page 16)

Dismissal of Soviet Linguist Exemplifies Moscow's Political Curbs on Science

By Christopher S. Wren
Special to The New York Times

MOSCOW, June 13--"Errors of a scientific character are one thing, but ideological errors are entirely another--these are absolutely terrible," declared an official at the Institute of Linguistics of the Soviet Academy of Sciences.

The occasion was a meeting reviewing the activities of Igor A. Melchuk, a prominent Soviet linguist, for a nominally routine reappointment to the institute staff. The outcome was that Mr. Melchuk was ousted from his post as senior research fellow.

His scientific credentials were not criticized--professionally he has been compared with the American linguistic scholar Noam Chomsky--but his ideological errors included writing a letter to The New York Times last January in defense of another dissident scientist, the Nobel peace laureate Andre D. Sakharov.

Consequently, Mr. Melchuk was discharged. "The whole session was a monstrous farce," the 43-year old linguist related. "I worked at the institute for 20 years and published 150 books and papers. And no one there had the courage to stand up and say a kind word about me."

Political Reliability

The case highlights the priorities set by the Soviet scientific establishment, which the Soviet Union says, has a quarter of the world's scientists.

Their advancement depends on political reliability as well as scientific curiousity. The price for running against, the political grain is stiff. Scientists showing signs of dissidence are promptly shorn of prestige and position; their work, perhaps based on years of research, is removed from libraries or is published with their names expunged.

When the physical chemists Veniamin G. Levicn, a corresponding member of the Academy of Sciences, applied to emigrate to Israel in 1972, he was not merely removed from his Institute post, five scientific committees and two editorial boards; the chair he held at Moscow State University was abolished.

Moreover, in virtually every similar case, the response of colleagues has been silence. A number of scientists interviewed attribute this more to the prevailing system of rewards than to fears of repression. Orthodox scientists reap escalating benefits that place them among the elite materially as well as intellectually, and these and their careers could be threatened if they got involved.

"Under Stalin it was a question of life or death," said Dr. Levich's wife, Tanya. "Now it has become a question of being allowed to go abroad for a longer period."

The Soviet Communist Party chief, Leonid J. Brezhnev, defined the code of behavior at the Academy of Sciences' 250th anniversary celebration last October: "Whatever the field in which Soviet scientists are working, they are always distinguished by one characteristic—a high standard of Communist consciousness and Soviet patriotism."

Less Than Factory Wage

The primary incentive is built into a pay scale that rises sharply with promotions. A Soviet physicist outlined it this way: While a junior scientist fresh from the university earns only 100 rubles a month— about $130—or 40 rubles less than the average industrial wage, the salary of a senior scientist jumps to 300 rubles a month, and a laboratory chief or full professor earns 500, plus the opportunity to draw more by teaching or writing on the side.

Upon election to the Academy of Sciences, there is an additional stipend of 500 rubles for full members, who also get such benefits as chauffeur-driven cars, and 250 rubles for corresponding members.

The promotions do not involve scientific ability alone. Also involved is "obshchestvennaya aktivnost," which translates—somewhat misleadingly—as "social activity," that is, activity on behalf of party and state.

The assessment begins in the university, where Young Communist League activists are entitled to higher scholarship stipends. The same criterion is applied to admission to work toward advanced degrees. "If you want a doctorate you could be Isaac Newton himself, but if you don't have your political activity, you will never get a doctorate," said Valentin F. Turchin, a physicist who earned his before becoming a dissident.

Similar evaluations are made for job assignments. Dr. Levich recalls that when he visited his institute's party organizations with recommendations for promotions among his staff, "the first question was their social behavior and whether they were party members."

Travel Most Valued

The most valued privilege is the opportunity to travel abroad, where a scientist can learn firsthand what foreigners are doing in his field. The right to travel is dispensed only to those who are examined and found trustworthy. Political and social nonconformity, even contact with dissidents on or off the job, is reason enough for the refusal.

According to one Soviet scientist who has traveled abroad, the crucial document is a kharakteristika, or character reference, from one's institute. While the applicant may be questioned by the regional party committee, it is the obscure "departure commission" of the Central Committee that dispenses final approval.

Before a scientist leaves he is instructed by party officials how to behave. Upon his return, he must prepare a written report on what he did and whom he saw. Eventually, he is considered cleared for repeated trips abroad or as Russian slang puts it, "in the clip" like a pistol bullet.

If doubts arise, the travel privilege can be revoked. A scientist who visited Czechoslovakia in the late 1960's said that he was forbidden to go abroad for several years after a colleague reported that he had become too friendly with their hosts.

Scientists who get in trouble politically can also cast a shadow on superiors and coworkers. Institutes with nonconformists on their staffs may find it harder to compete for project funds or foreign-made laboratory equipment. Since administrators have a vested interest in maintaining ideological respectability, retaliation against someone stepping out of line need not be instigated by higher authority.

Professional Setbacks

Dissident scientists say they have suffered professionally under such political constraints. Dr. Turchin believes that the system's inflexibility explains at least in part why the Soviet Union still lags behind the West technologically. Others have noted that Soviet science excels in abstract fields like pure mathematics and astronomy but becomes weaker in applied fields, particularly if they touch upon ideology, as the social sciences do.

A Western scientist familiar with the Soviet scene believes that Moscow has compensated by drawing on vast numbers of applicants and is filling gaps through scientific exchange with the West. Moreover, he commented, Western scientists have not been significantly bolder in jeopardizing their careers.

Some Soviet scientists, like the physicist Pyotr L. Kapitsa, have become so internationally respected as to stay aloof from political pressures. Dr. Kapitsa declined to join the denunciation campaign against Dr. Sakharov, also a physicist, with no apparent ill effect. A few others, Dr. Sakharov among them, have broken with the system, but most scientists prefer to go along.

"A lot of them may have sympathy for the dissidents," the Western scientific observer said, "but they wouldn't do anything to support them because it would risk a comfortable life."

****

(Los Angeles Times, August 7, 1976, Part II, page 4)

LETTERS TO THE TIMES

Soviet Dismissal of Igor Melchuk

Your Moscow correspondent, Robert Toth, at the beginning of June reported that Igor Melchuk, "the most outstanding Soviet linguist," had been dismissed from the Institute of Linguistics of the U.S.S.R. Academy of Sciences. He had failed to pass a recertification (which is held once in five years) and lost his position as senior research associate for his political, so Toth asserts, "nonconformism."

It is true, Igor Melchuk had published slanderous statements in the Western press. But, supposing this was the motivation behind the decision of the institute's administration, as Toth alleges, we may ask:

How is it that Melchuk was able to work at the institute for as many as 20 years? Why were dozens of his books and articles published in the U.S.S.R., and why was the scientific degree of candidate of science conferred on him? Why was Melchuk not dismissed much earlier-- five or 10 years ago?

Here is comment by Dr. Victoria Yartseva, director of the institute: "We had always condemned the actions of Igor Melchuk, but never raised the question of his leaving the institute. We considered Melchuk to be an able scientist. He was given a concrete sector of research--the development of an Anglo-Russian machine translation system. The project is of enormous importance. However, his investigations throughout these years did not lead to practical results. The project is very far from completion."

The learned council of the Institute of Linguistics, by a majority of votes (the voting was secret) did not re-elect Melchuk for a new five-year period.

It is known that in the West applied research is conducted within the framework of fairly rigid programs, the financing of which depends on the results obtained. Clearly, there they would not have kept for so many years a man violating the terms of a contract.

Igor Melchuk was dismissed from his position not because of his views, but because of the neglect of the job entrusted to him.

IGOR TROYANOVSKY
Moscow

Editor's Note: Troyanovsky is a Soviet journalist. His letter was forwarded to The Times by the information officer of the Soviet Embassy in Washington.
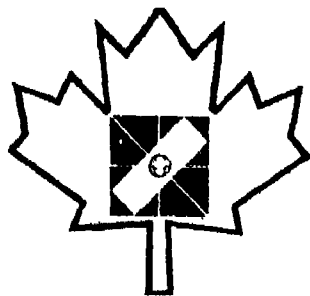
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FCC Computer Communications Planning Conference

'No Logical Technical Boundary' Between Computing and Communications
By Pender McCarter
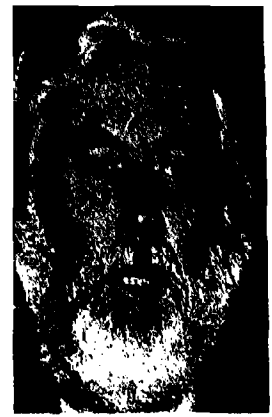

Wiley   Cerf   Hopewell   Curran   Dunn

Summarizing the technical presentations at the FCC Planning Conference on Computer Communications, Dr. Vinton G. Cerf of the Information Processing Technique Office, Defense Advanced Research Projects Agency (ARPA), noted (1) there is no "logical technical boundary" between computing and communications, (2) packet switching is having an "important effect" on computer communications today, and will have a "profound effect" on frequency allocation in the future, (3) high local access costs, international link costs, and user learning costs are "limiting" the growth of computer communications services, (4) the prime opportunities for network cost and tariff improvement lie in the development of new facilities for local access and for intercontinental links, and (5) a regulatory climate is needed "which encourages innovation, ensures reliable interconnection of primary services, and promotes the acquisition of capital for growth."

Opening the Conference, FCC chairman Richard Wiley stated his view that a computer is a communications device, not a data processing device when it is used in a traditional communications service. However, Wiley also noted that the use of computer technology may result in an en-

hanced service, offering more than traditional communications.

He predicted that similar technological forces will develop in several areas of communications service. Wiley said, "I firmly believe that, in this great free enterprise society of ours, government regulations must not be permitted to stand in the way of technological development. If the new technology creates administrative difficulties for the government, it is the regulations that must be conformed and not the technology."

In the Conference's first presentation on "Computer Communications: An Introduction and Overview," Lynn Hopewell (chairman, IEEE Computer Society Technical Committee on Computer Communications; member, executive staff, Computer Sciences Corp.) said that computer communications systems had first been used in controlling "complex" operations of industry and government. Hopewell added that the most common use of computer communications is in data base applications.

The speaker suggested that the computer communications industry accounts for 20 percent of all expenditures in the computer field. Examples of industrial areas affect-

d by computer communications technology
ere listed as law enforcement, securities
rokerage, insurance, reservations systems,
nd banking. Hopewell said that 75 per-
ent of the top 500 industry corporations
re now using computer communications.

While distributing samples of a micro-
computer on a chip to the audience, Hope-
well noted that technological changes
have produced a 1976 microcomputer CPU
costing $20 in contrast to a 1960 IBM
CPU costing $30,000. He added that micro-
processors which cost $20 today cost $100
only a year ago. He indicated that such
differentials represent only the beginning
of low cost computing.

Hopewell said that the proposed defini-
tions employed in the new "Computer Inquiry"
aid in "clarifying the permitted uses of
computers by common carriers, but in no
way allow the proposed abandonment of the
'hybrid' service concept." He noted that
the hybrid concept should be retained
"because some service offerings have
mixes of both computing and communications
functions," not retained because of unclear
definitions.

Since "hybrid services will become even
more common in the future," Hopewell con-
tinued, elimination of the hybrid concept
will "inevitably suppress innovation be-
cause any services that have communications
functions inextricably bound into them will
be defined as subject to regulation." The
speaker concluded that he saw no "techno-
logical or economic reason for the regu-
lation of the resale industry."

In his presentation on "Research Topics
in Computer Communication," Vinton Cerf
summarized technological factors influ-
encing the development of computer com-
munications: the availability of wideband
transmission media; the use of computers
to control the switching and allocation of
transmission bandwidth; the trend toward
all-digital telephone networks; and inter-
connection of computer communications net-
works.

Cerf said the "technology is leading away
from separate, distinct narrowband services
...toward integrated wideband services. The

potential social impact is pervasive; the
possibilities for new wealth-creating ac-
tivity, almost incalculable; and the need
for regulatory adjustment, inevitable."

With the juxtaposition of computing and
communication, he suggested that the FCC
could reallocate the radio spectrum using
computer-controlled demand access; mandate
computer communication network interconnec-
tion through the enforcement of interconnec-
tion standards; and consider proposals by
regulated carriers as well as others "to
provide previously impossible combinations
of information processing and traditional
communication services."

In his presentation on the "Dimension
of the Need for Computer Communications,"
Alex Curran, president, BNR, Inc., suggested
that domestic users must seek to reduce the
cost of network access for smaller users,
especially in the "smaller urban centers."
FCC Interconnection Chief Louis Feldner,
in a question-and-answer period following
Curran's presentation, stressed the "need
for computer power" in rural areas.

In his formal presentation, Curran con-
tinued that the cost of intercontinental
transmission must also be reduced. Accord-
ing to the speaker, these measures would
help to insure that "the common carrier
networks can cope with the data communica-
tions traffic of commercial users."

Curran stated that some of the office
and home services associated with computer

communications could require reintegration of voice and data capabilities. Curran provided several current examples of personal computing including: Viewdata, the embryonic electronic newspaper in the United Kingdom; Incasting, instantaneous voting and data collection in Canada; Mailgram, a precursor of electronic mail in the U.S.,; and CAI, computer-assisted instruction.

Curran also said that other services will require switching machines "capable of recognizing information interest specifications as valid addresses." For example, switching machines could recognize selective information dissemination [interest] specifications as valid addresses. Curran concluded, "Thus, the boundary between communicating and computing will become more blurred. There are economic arguments for suggesting that the boundary definitions be relaxed to encourage a new cycle of innovation."

In his presentation entitled, "Limitations on the Growth of Computer-Communication Services," Professor Donald A. Dunn, Engineering Economic Systems Department, Stanford University, indicated that user learning costs will limit the rate at which new computer communication services can be introduced to markets serving non-computer professionals. Dunn suggested that, in future regulatory decision, integrated service packages (designed to minimize user learning and operation costs) might be used as the unit of service that is judged communications or data processing in lieu of individual component services. He added that regulatory limitations on the rate of return and regulatory policies on depreciation allowances can restrict technological changes as well as limit the rate of introduction of new equipment by carriers.

According to the speaker, the earlier "Computer Inquiry" rule, requiring data processing services to be provided by carriers through a separate affiliate, may limit the growth of carriers. But he added that the rule does not limit the growth of the data processing industry since unregulated suppliers can respond to this market. Dunn also noted that the resale and sharing decision, imposing regulation on resale carriers, would not necessarily inhibit the growth of the industry "since separate data processing affiliates will not be required of resale carriers that do not provide monopoly services."

He stated that the resale and sharing decision "removed some of the most serious limits to the growth of this industry by opening the market for network services to essentially any firm willing to operate as a resale carrier." Dunn concluded, "Pressures are likely to develop soon to regulate providers of information service packages that may offer computer message services to users that obtain network service from resale carriers. Such regulation would inhibit the growth of the industry, and is not needed to protect the interests of users."

In their presentation on "The Future of Computer Communications," Vinton Cerf and Alex Curran said that "we cannot offer a solution to the definition of a boundary between communicating and computing -- in fact, technical considerations convince us that there is no natural boundary."

Cerf and Curran urged the FCC to support the development of "competitive services;" insure that a "sufficient set" of standards is created to facilitate interconnection of "prime services:" create a climate in which both computing and carrier interests profit from the installation of "reliable" facilities; and broaden the base for the acquisition of capital so as to eliminate a possible constraint on growth.

The Proceedings of the Special Planning Conference has been published by AFIPS Press, 210 Summit Avenue, Montvale, New Jersey 07645. (Price: $10.00)

In response to the success of the Planning Conference, Richard Wiley extended the FCC's appreciation of AFIPS' effort in the following letter.

Dear Dr. Rector:

On behalf of the Federal Communications Commission 1 want to extend our most sincere thanks to AFIPS for its presentation

NOTICE TO AJCL CONTRIBUTORS

SHORT-PAPER FORMAT

AUTHOR'S NAME

Institutional Address

SUMMARY

To produce a journal as large as AJCL for a society with as
small a membership as ACL, while keeping dues at their present
low level, the Association must call on contributors for help
The preparation of camera-ready copy is a substantial help
This and the following frames are intended to save authors
the inconvenience of retyping accepted manuscripts. This frame
is laid out as the first frame of a short article (up to 25
manuscript pages) would be   The following frame contains
explicit suggestions.

SHORT CONTRIBUTIONS TO AJCL

FORMAT

On the first page, the contributor supplies the title of the article, the names of authors, their institutional addresses, and a 100-word summary. This page will be retyped by the editorial office. On following pages, the contributor leaves 9 blank lines at the top and a full inch on sides and bottom. The editorial office types in Running head and page number at the positions indicated above. The contributor does not number pages.

Illustrations, tables, and notes are best mixed with the text to spare the reader searches on the microfiche.

References can begin immediately following the end of the text; it is not necessary to start a new page.

Double-spaced typing is used throughout.

EDITORIAL REVIEW

On first submission, three copies are needed for members of the Editorial Board. Comments are generally returned in about a month. The author should save the original for sub-mission after acceptance; the original or a very sharp, black photocopy with clean white background is needed for repro-duction.