

DDA SUBJECT FILE COPY

## ROUTING AND RECORD SHEET

SUBJECT: (Optional)

DDA/REG  
LOGGED

FROM:

D/OTE  
1026 CofC

EXTENSION

NO.

OTE 86-1037

DATE

2 September 1986

TO: (Officer designation, room number, and building)

DATE

OFFICER'S  
INITIALS

COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)

RECEIVED

FORWARDED

1. EXA/DDA  
7D24/Hqs.

04 SEP 1986

9/4

Jm

2.

3.

ADDA

05 SEP 1986

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5.

DDA

5 SEP 1986

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1 to 3,5: The most likely candidates would be from ORD's AI research center, or OIT's small AI Staff. DDIST also has several imagery-related AI efforts underway - from which a suitable candidate is possible.

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OTE 86-1037

2 September 1986

MEMORANDUM FOR: Deputy Director for Administration

FROM:

Director of Training and Education

SUBJECT: Carnegie-Mellon University

STAT

1. I got your note with the clipping from the New York Times on the Carnegie-Mellon IBM connection. Interestingly, I had seen the same piece on the airplane on the way to Monrovia and pulled it out of the paper. Another example of the geniuses thinking alike.

STAT

2. [redacted]--who has a PhD in Computer Science from Carnegie-Mellon--called the University and talked to the Acting Head of the Computer Science Department, Professor John McDermott,. Professor McDermott said that the Department would be willing to take both a student and a senior officer-in-residence. He said that the student, to work in artificial intelligence (AI), ought to have at least a Masters Degree in Computer Science and be at least somewhat knowledgeable about artificial intelligence . Professor McDermott said that they had an officer-in-residence from IRS who met these requirements; in addition, IRS provides the Department with \$75,000 in "research funds" in association with this individual. [redacted] got the impression that the Department has so many opportunities of this sort that they are not widely enthusiastic but would be willing to go along with what we wanted to do. (Of course, [redacted] only talked to the Acting Head of the Department, so it is a little unclear to what degree his lack of enthusiasm but willingness to go along represents the views of his Chief. We will have to find out.)

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3. I do not think that we have anybody in OTE who meets Professor McDermott's stipulations, but we will continue our search and advertise the opportunity.

SUBJECT: Carnegie-Mellon University

4. I passed the above information to Ed Maloney. He said that, based on your note, he was already beginning to canvas for candidates for Carnegie-Mellon. I told him that, as far as I was concerned, the University would accept the right candidates if we could find them.

5. Clearly, it makes a lot of sense to have one or more Agency people at Carnegie-Mellon, so we will pursue this vigorously. I will be in touch with IMS, OIT, ORD, and anybody else that we can think of who would be interested in the AI and computer science area. It is clear from the clipping that Carnegie-Mellon is the place to be, and I think it would really pay off for the Agency to be closely associated with what's happening there. We will pursue finding a candidate vigorously.

STAT

cc: D/OIT/DA  
C/IMS/DO  
D/ORD/DS&T  
ADDS&T

## ROUTING AND RECORD SHEET

SUBJECT: (Optional)

FROM: William F. Donnelly  
Deputy Director for Administration

EXTENSION

NO.

DATE

15 AUG 1986

STAT

TO: (Officer designation, room number, and building)

DATE

RECEIVED

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OFFICER'S INITIALS

COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)

1. Director of Training and Education  
936 C of C EXO

8/20

Stan:

Please note the attached clipping from the New York Times.

I have been stating for some period of time that the Agency should have someone at Carnegie-Mellon University who has an ADP background. Now I believe it even more. Please get together and arrange for an appropriate officer to go to Carnegie-Mellon for a year's training in the field of artificial intelligence or arrange to place an officer at Carnegie-Mellon for two years as a "Professor" in Residence.

I see this officer as a GS-14 to SIS-02; it should be an individual who we believe can represent us both technically and politically. We should view this assignment as an investment in the future--so we are looking for someone who has up to ten years more to work for the Agency.

Let's work at this seriously and aggressively.

William F. Donnelly

cc: D/OIT

Attachment:

New York Times Article  
dated 14 August 1986

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THE NEW YORK TIMES, T

August 14, 1976

## COMPANY NEWS

## I.B.M. Enlists Software Aid

3-Year Study  
At University

By DAVID E. SANGER

Special to The New York Times

PHILADELPHIA, Aug. 13 — The International Business Machines Corporation today announced a three-year multimillion-dollar project in artificial intelligence with Carnegie-Mellon University, as part of what the company called "a major new I.B.M. initiative" in advanced software.

Under the terms of the agreement, I.B.M. will provide equipment and financing for Carnegie-Mellon researchers developing "expert systems" that attempt to simulate human reasoning and draw conclusions, along with longer-range work in speech recognition and robotics.

While I.B.M. said it would not have exclusive access to the results of the research, company executives attending the annual meeting of the American Association for Artificial Intelligence here said they expected those results would become part of I.B.M.'s future software products.

The move appears to be part of a major shift within I.B.M., which has traditionally been weak in applications software, programs that perform specific tasks for computer users. Artificial intelligence, a set of programming techniques that gen-

erally make computer systems easier to use and capable of performing many jobs without human intervention, are considered essential to that effort. They also use an extraordinary amount of computing power and memory, meaning the prospect of additional hardware sales.

## 'Something of an Awakening'

"There is something of an awakening under way at I.B.M.," said Raj Reddy, head of Carnegie-Mellon's robotics institute and a leading authority in artificial intelligence. "Four or five years ago, when you mentioned artificial intelligence, I.B.M. shrugged its shoulders."

I.B.M. executives here said that within the last year the company had created an artificial-intelligence project office that reports directly to I.B.M.'s management committee, with unusually broad responsibility to integrate new techniques in I.B.M. products. In coming months, the company is expected to bring out its first commercially available expert systems, primarily programs designed for banks, insurance companies and manufacturers.

"Strategically, this is now a very high priority for us," said Herbert Schorr, who is directing I.B.M.'s artificial-intelligence initiative. "It should enable us to attract a new set of users — like loan officers or insurance underwriters — who can retrieve facts off their computers, but get little analysis or instruction about how to apply rules."

Many artificial-intelligence products are "development tools," or programs that help computer designers

prepare other programs; the use of expert systems has primarily been limited to medicine and manufacturing, although an increasing variety of such systems is coming onto the market.

Much of the most promising technology is still in university laboratories, notably at Carnegie-Mellon, the Massachusetts Institute of Technology and Stanford University. Thus, companies are forming alliances with those institutions, especially because it is relatively inexpensive to transport software from the laboratory to the marketplace.

Under the agreement announced today, I.B.M. will provide Carnegie-Mellon with about \$5.5 million in computer equipment and will negotiate contracts for individual studies in artificial intelligence. The equipment is primarily the PC/RT, an engineering and scientific computer introduced earlier this year that I.B.M. believes particularly well suited for artificial-intelligence applications.

Two years ago I.B.M. was stung by charges that a pact with Carnegie-Mellon to help develop the PC/RT bound the university to secrecy agreements that many academics called unethical. In today's announcement, it was careful to say the project would be "open research."

"Carnegie-Mellon will own the software it develops and is free to publish whatever it wants," said John C. Daily, who heads the company's Academic Information Systems unit. "We will share in the results, but we will not have exclusive access."