

'Robot Brain' Translates Russian into King's English

BY HARRY GABBETT

A Georgetown university language genius has combined with leading American electronics experts to produce a mechanical

"brain" that translates whole Russian sentences into English with superhuman speed and precision.

The joint disclosure Thursday by International Business Machines Corp. officials and Dr. Leon Dostert,



Dr. Leon Dostert

stert, chairman of G. U.'s institute of languages and linguistics, followed the first public demonstration of the incredible robot in New York.

Shows His Stuff

As the 49-year-old French-born professor and IBM officials looked on, a pretty girl typist—who understands not a word of Russian—typed out the following sentence on the robot's input keyboard:

"Mi Pyeryedayem Mislyi Posyedstvom Ryechyi."

At the breakneck speed of 21/2 lines per second, the IBM's 701—as the robot is technically known—responded in English:

"We transmit thoughts by means of speech."

Dr. Dostert smiled an "absolutely correct!" IBM board chairman Thomas J. Watson beamed.

Back in their home here at 3314 Quesada St. NW., the professor's attractive wife, Mildred, confided to the Times-Herald:

"It's all Greek to me!"

"Well, not all of it, perhaps

Mrs. Dostert hastened to explain, because she has lived with it so long.

"But those electronic questions, you'll simply have to ask Leon."

The Significance

Actually, there aren't very many electronic questions to be asked, once the professor is thru with the explanation of 701's history-making behavior. But, first, the significance:

"Those in charge of this experiment now consider it to be definitely established that meaning conversion thru electronic language translation is feasible," Dr. Dostert explained.

No electronics there.

"The potential value of this experiment," he continued, "for the national interest in defense or in peace is readily seen."

No electronics there, either.

Tho it is not yet possible "to insert a Russian book at one end and come out with an English book at the other," Dostert predicted, "five, perhaps three years hence, interlingual meaning conversion by electronic process in important functional areas of several languages may well be an accomplished fact."

And no electronics there.

Here It Comes

Electronics here, tho: For purposes of the project, IBM's 701 was snatched from its humdrum duties of computing intricate nuclear physical results of rocket tests, refitted with a 250-word Russian dictionary (the words on a magnetic drum that revolves 2,929 times a minute), and electronically "taught" to select the right word in the right order.

The 701's initial reaction to the typed Russian sentences more than 60 were translated in Thursday's initial test) is to punch a standard IBM card full of holes—like a government pay check.

From that point on you have to bear with the technicalities. Things whirl. Things click. Things buzz. Separately, simultaneously and sometimes consecutively and retroactively, but all of it electronically and at once. Presto! It's typed out in English on the other side.

Dr. Dostert arrived here in 1920, graduated from G. U.'s school of foreign service in 1928 and married his West Virginia-born wife the same year. They've four children. Leon, Anne (now Mrs. Stephen Crowley, of Rockville), Pierre and Francois.