IBM, NYC hospital training Watson supercomputer in cancer

March 22 2012, By JIM FITZGERALD , Associated Press

This Jan. 13, 2011 photo provided by IBM shows the computer system known as Watson at IBM's research center in Yorktown Heights, N.Y. The medical training of IBM's speedy Watson computer will continue with a residency at Memorial Sloan-Kettering to help doctors diagnose and treat cancer. (AP Photo/IBM, File)

The medical training of IBM's speedy Watson computer will continue with a residency at a renowned Manhattan cancer hospital.

IBM and Memorial Sloan-Kettering Cancer Center said Thursday that they will add the latest in oncology research - and the hospital's accumulated experience - to Watson's vast knowledge base, and keep updating it.

The result should help the hospital diagnose and treat cancer more quickly, accurately and personally, they said.

"The capabilities are enormous," said Dr. Larry Norton, deputy chief for breast cancer programs at Sloan-Kettering. "And unlike my medical students, Watson doesn't forget anything."

Watson won fame by beating the world's best "Jeopardy!" players. Applying its speed and language skills to medicine was a longtime goal at IBM, and Watson went to work last year for the health insurer Wellpoint Inc.

The training at Sloan-Kettering will take time, and it may be the end of next year before patients at the hospital are benefiting from Watson's speed and depth, said Dr. Martin Kohn, chief medical scientist at IBM. If successful, the finished product could be used anywhere in the world to aid cancer treatment.

Kohn said there's a rule of thumb that it takes 15 years for breakthroughs in medicine to be disseminated around the world.

"So any process that can help get valuable information about choices and treatment out into general use more rapidly obviously is an improvement," he said.

IBM said it was still focused on the project's development and was undecided about how to market it. It said both IBM and the hospital had invested in the plan but would not disclose specifics.

Watson will be fed textbooks, medical journals and - with permission - individual medical records. Then it will be tested with more and more complicated cancer scenarios and assessed with the help of an advisory panel, Kohn said. It's expected to speedily suggest diagnoses and

recommend treatments, ranking several alternatives.

The computer's grasp of the scientific literature - and its ability to find the right passage in seconds - will help doctors keep up with the ever-expanding amount of available information, the doctors said.

But Norton said it's the patient records at Sloan-Kettering - with plain-language notations that Watson can understand - that will add "wisdom" to what the computer learns.

The hospital, founded in 1884, says it's the world's oldest and largest private cancer center.

"Because of our size and experience, we have super-specialized physicians in every field of cancer," Norton said. "And all of what they actually do is capturable in the language of our electronic medical records.

"You boil together knowledge and sophistication and experience and what you have is wisdom," Norton said. "No one's ever captured wisdom before in a way that can facilitate medical decision making."

Watson can even be instructed about individual patient preferences, Kohn said. When evaluating treatments, for example, it could take into account that a patient feels strongly about not losing her hair.

"Or a patient says, `My daughter is getting married in six months. No matter what, I have to live that long,'" Kohn said. "Then that influences the treatment."

©2012 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Citation: IBM, NYC hospital training Watson supercomputer in cancer (2012, March 22) retrieved 3 May 2024 from
https://phys.org/news/2012-03-ibm-nyc-hospital-watson-supercomputer.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.