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And the Winner of the $1 Million Netflix Prize (Probably) Is ...

By STEVE LOHR

Update | 6/27/09 11:32 a.m. *Added comments from Martin Piotte, a member of the team that has apparently won the contest.*

After nearly three years and entries from more than 50,000 contestants, a multinational team says that it has met the requirements to win the million-dollar Netflix Prize: It developed powerful algorithms that improve the movie recommendations made by Netflix's existing software by more than 10 percent.

The online movie rental service uses its Cinematch software to analyze each customer's film-viewing habits and recommends other movies that customer might enjoy. Because accurate recommendations increase Netflix's appeal to its customers, the movie rental company started a contest in October 2006, offering $1 million to the first contestant that could improve the predictions by at least 10 percent.

Teams have been working on the task ever since, with some coming tantalizingly close to the magic threshold.

On Friday, a coalition of four teams calling itself BellKor's Pragmatic Chaos — made up of statisticians, machine learning experts and computer engineers from America, Austria, Canada and Israel — declared that it has produced a program that improves the accuracy of the predictions by 10.05 percent.

Under the rules of the contest, Netflix said that other contestants now have 30 days to try to do even better. If they cannot, BellKor's Pragmatic Chaos will collect the $1 million.

The Netflix Prize contest has been hailed as prime example of "prize economics" and the crowdsourcing of innovation. Prize economics refers to running a contest to generate a new innovation at less cost than an in-house research and development effort, and crowd-sourcing refers to using the proverbial wisdom of crowds to accomplish a task. Netflix has said that $1 million would be a bargain price for an improved recommendation engine, which would increase customer satisfaction and generate more movie rental business.

BellKor's Pragmatic Chaos is a pretty elite crowd. The group is a collection of the 2007 and 2008 winners of the Netflix Progress Prizes — $50,000 a year for the teams that made the most progress toward the 10 percent improvement — and a pair of engineers from Montreal who have long been near the top of the contest's leaderboard.

The team includes Bob Bell and Chris Volinsky of the statistics research department at AT&T Research (members of the 2007 and 2008 Progress Prize-winning teams); Andreas Toscher and Michael Jahrer, machine learning experts at Commendo research and consulting in Austria (members of the 2008 winning team); Martin Piotte and Martin Chabbert, engineers and founders of Pragmatic Theory in Montreal; and Yehuda Koren, a senior scientist at

Yahoo Research in Israel (a member of the 2007 and 2008 winning teams).

“What we’ve seen is that collaboration has taken hold,” said Steve Swasey, a Netflix spokesman. “They realized how difficult the challenge is, and they have assembled people with complementary skills.”

Mr. Piotte, a founder of Pragmatic Theory, explained why he recently joined the larger team. “Because of the nature of the competition, making a coalition of teams is a quick way to improve results,” he said in an e-mail Friday night. “We felt that we had little chance to keep the lead against such a coalition unless we were part of one, too.”

But he declined to say just how the team nudged their work over the 10 percent threshold. “Since the competition remains open for 30 days, we are reluctant to disclose any secret at this time,” Mr. Piotte said. “All I can say is that we all worked very hard to achieve this mark, and that the final solution contains many original ideas.”

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