



Flash

What Happens if Watson Beats Ken Jennings on 'Jeopardy'?

By Edward Tenner

How much does it matter that next week IBM's Watson computer may overtake human champions in the television knowledge-game *Jeopardy!*? The novelist [Richard Powers](#), after admiring the boldness of the enterprise, makes what I think is a good prediction of the consequences:

[H]istory is the long process of outsourcing human ability in order to leverage more of it. We will concede this trivia game (after a very long run as champions), and find another in which, aided by our compounding prosthetics, we can excel in more powerful and ever more terrifying ways.

Should Watson win next week, the news will be everywhere. We'll stand in awe of our latest magnificent machine, for a season or two. For a while, we'll have exactly the gadget we need. Then we'll get needy again, looking for a newer, stronger, longer lever, for the next larger world to move.

Who will benefit from programs like Watson? It's not so easy to foresee. Consider [computer chess](#). Deep Blue's victory over Garry Kasparov in 1997 initially was a bonanza for established chess grandmasters, increasing rather than reducing interest in the game, as some chess fans had feared. But in the long run, U.S. stars suffered from the increased numbers of emerging masters and grandmasters around the world who had been able to develop their skills with chess software and Web practice and databases. These provided experience previously available only in a handful of big-city chess clubs.

Mr. Powers and IBM present Watson as a harbinger of intelligent systems that will revolutionize medicine and law. But there's a huge difference. Before Watson, there was no professional-grade real-time *Jeopardy!* software at all. In the professions there are existing powerful programs for medical diagnosis and legal case analysis. Issues in those fields usually revolve around judgment and often understanding of a patient's personality and life circumstances and a client's personal or corporate history. So the most likely result will probably be elimination of support and entry-level professional

positions -- for example, perhaps even fewer jobs for [new law graduates](#). Maybe the lawyers will in turn take their revenge with a new class of liability suits against deep-pocketed medical software vendors as well as physicians using their product, even if potentially dangerous results are rare. Some deeply flawed answers might look plausible. The *Times* itself has reported on the risks of comparatively simple [radiation software](#).

And how worried should we be about our human uniqueness in the face of artificial intelligence? I suggest reading Harry Collins' *Artificial Experts*. All of us, individually and socially, know countless things that are not present in any of the databases that have been loaded into Watson or indexed by Google. And we can use these competently without multiple algorithms, just as we learn language as infants without reading grammars or dictionaries.

Maybe human *Jeopardy!* champions and chess grandmasters are not the best subjects for evaluating the strength of artificial intelligence. In particular, scanning and interpreting massive databases may be comparatively easy stuff. Non-human animals have some skills that computers have not. For example, can Watson think about its own thinking, as [dolphins](#) and [monkeys](#) apparently do? It was the human programming team that came up with the winning probabilistic approach for modifying Watson, not Watson itself.

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