



backtracking

Intelligence: what's in a name ?

In George Johnson's *New York Times* piece "Nobody's Smart About Intelligence" (March 1, 1998), he offers this lament: "IQs are up. S.A.T.s are down. Americans flunk math and prosper. Somebody with brains should figure this out." The best anyone can offer, Johnson claims, is a conjecture that the complexity of everyday life (programming small electronic devices or calculating the latest projection of your net worth when you retire) has stretched and exercised our brains into faster and more agile computing engines. This might explain our increasing IQs while MTV and video-game overload might explain our increasing ignorance and declining capabilities at the logical plodding deductive thought of traditional intelligence.

So what type of intelligence is AI trying to create? Astro Teller (*New York Times*, Op-Ed, March 21, 1998), suggests that no matter the type, building intelligences will make our world better as we learn more about our minds and who we are. But what will we understand? How better to exploit our neighbors or sell them goods and services at ever increasing profits? Will we understand the difference between Gandhi and Saddam? Mozart and Madonna? Or just what is it that everyone finds funny about *Seinfeld*?

The recent pinnacle of AI achievement has not come from our half century-long quest to pass the Turing Test, but from our fascination at a machine beating a human at the complex task of playing chess. Deep Blue, a parallel supercomputing creation from IBM for processing hundreds of millions of chess moves per second, is the hardware and software that realized this

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impressive accomplishment. An ancient game, long attacked by AI's and now empirically conquered.

Everyone can honestly admit that Deep Blue doesn't have a clue about what it is doing, so self awareness is not an issue. It just "knows" the next best

move from an intensive search. So what kind of intelligence is this? It is clearly "AI Intelligence," a smart machine; honored by AI associations and foundations with a small pile of cash (compared to IBM expenses!) and a Newell Research Medal. Drew McDermott in his May 14, 1997, *New York Times* piece on Deep Blue, asked whether Deep Blue is indeed intelligent. He offered that although human chess grandmasters don't do exactly the same kind of search as Deep Blue, it is essentially the same activity even to the point of lacking conscious awareness of the search they are doing. Yes, it is some kind of intelligence.

Will this intelligence improve our world? Do we understand something about ourselves that we didn't before? I think Teller is right; we understand our minds and world a little better each time we ask hard questions and get real answers. Perhaps our understanding (and AI?) is less a matter of intelligence and more a matter of crunching the numbers in a statistically predictable and stable universe. But would you bet on it? ■

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