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STS.035
Reading Response, Week 6

When reading the Edwards paper about how the Artificial Intelligence people required interaction (and thus, a time-shared system) for their work made me think a lot about how I use a computer. Often, when "debugging" a system, I run it, see what is wrong, make a guess at a solution, and run it again. Sometimes, I'll place print statements, to have the program display the values of certain values, to help me guess at what the problem is. I've never thought of this as a potential "intelligent" interaction. However, this does resemble a doctor asking a child "does it hurt when I push here? How about here?" or asking the child to describe his own feelings while he is sick. I don't believe this makes my computer "intelligent"; I just felt that should be mentioned, since it really opened my eyes to a procedure that I just took for granted.

I didn't like the concept of having man-computer symbiosis instead of artificial intelligence. I believe that is just dodging the issue at hand. The point is to create a computer that has human intelligence (or at least some sort of intelligence, possibly created in a very different manner, but at least on the level of human intelligence). Saying computers will never get to this stage, and instead should be alongside humans, doing some "intelligent" things on their own, but needing help from humans on others, is giving up. If this symbiosis is just an interim stage, then perhaps it has some value. However, then the computer should have some mechanism for learning from the Human. If it continually asks the same questions again and again, always gets the same answer, and can't extrapolate a rule from the answers, then it certainly isn't intelligent.

I really liked the part of Newell's paper in which he describes a computer playing chess. If the computer can analyze 800,000 moves (or more), it certainly isn't displaying any kind of human-level intelligence. It isn't even an interesting level of intelligence – it is just swamping its opponent by being able to think much more in the same amount of time. Deep Blue thinks more, not better, than human beings.

If a computer, on the other hand, only analyzed 100 moves, and determined the best next move from that, it would be intelligent. It is interesting to hear Minsky's statements about understanding. There are many books available on chess strategy. It is a concept that is fairly well understood. Why, then, has there never been a successful chess program that used strategy instead of brute-force? The game of Go is a better example, because in that game, the best brute-force algorithms are only at the level of beginner humans. Therefore, a strategy-based algorithm for Go would break new ground, and yet nothing is available for another well-understood game.