Tyler Moson CSC 366 Professor Craig Graci The Ineradicable Eliza Effect and Its Dangers

- "In the meantime, however, great deal of uncritical publicity was being given to a number of AI programs that gave the appearance of creating very complex real-world analogies or making sophisticated scientific discoveries, rivaling in insight such pioneers as Galileo, Kepler, and Ohm. Such favorable publicity could not help but make our achievements in microdomains look rather microscopic, by comparison. And yet, we felt that any such conclusion about our work would be superficial and unwarranted. It's obvious why this was cause for concern on our part." pg 155
- 2. "Surely, the minimal prerequisite for us to feel comfortable in asserting that a computer made an analogy involving, say, water flow, is that the computer must know what water is- that it is a liquid, that it is wet and colorless, that it is affected by gravity, that when it flows from one place to another it is no longer in the first place, that it sometimes breaks up into little drops, that it assumes the shape of the container it is in, that it is not animate, that objects can be placed in it, that wood floats on it, that it can hold heat, lose heat, gain heat, and so on ad infinitum. If the program does not know things like this, then on what basis is it valid to say "the program made an analogy between water flow and such-and-so (whatever it might be)"?" pg 156
- 3. "As a consequence of this lack of conceptual background, the computer is not really *making an analogy*. At best, it is *constructing a correspondence* between two sparse and meaningless data structures. Calling this "making an analogy between heat and water flow" simply because some of the alphanumeric strings inside those data structures have the same spelling as the English words "heat", "water", and so on is an extremely loose and overly charitable way of characterizing what has happened." pg 156-157
- 4. "There is an irresistible tendency to conflate the rich imagery evoked by the drawings with the computer data-structures printed just below them (Figure VI-2, page 277). For us humans, after all, the two representations feel very similar in content, and so one unwittingly falls into saying and writing 'The computer made an analogy between this situation and that situation." How else would one say it?" pg 157
- 5. "On the other hand, the claim that a novel has been "written by a computer" is extraordinarily distorted and misleading. It's most unclear from the article what Scott French's computer was actually able to do, but the impression was clearly given that the computer was handling sophisticated concepts such as 'Jealousy", "sex", "competition", and so forth, not to mention more everyday ones like "woman", "throat", and 'Jump". All in all, a naive reader would easily get the impression that the computer was manipulating the same repertoire of concepts as is in the mind of a bestselling human author such as Jacqueline Susann." pg 160
- 6. "The mind of even the trashiest of human authors is filled to the brim with life experiences adding up to the most unanalyzable depths of mental complexity and subtlety." pg 160

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- 7. "We have a long way to go in the scientific study of how human minds work before we will come up with a computer that can produce even a single good joke, let alone a novel." pg 161
- 8. "In one chapter on artistic and literary and literary achievements by computers, for instance, she attributes almost uncanny powers of understanding to what is actually quite a simple program called "ACME", developed by psychologist Keith Holoyoak and philosopher Paul Thagard." pg 161-162
- 9. "The program has been informed of nothing it has merely been handed a string of letters and punctuation marks. As a result of this, no ideas will be created, no knowledge will be consulted, no imagery will be formed. Yet simply because highly evocative English words are embedded in the string, it is hard to resist this easy slide down a very slippery epistemological slope." pg 166
- 10. "When highly respectable magazines and newspapers and professional journals and books give complete credence to the claims that scientific discovery is being modeled, that metaphorical language is being routinely handled, that deep analogies are being made in - or between! - highly sophisticated domains, that cooking and coaching and designing and daydreaming and economics and engineering and so forth and so on all fall comfortably within the capabilities of today's artificial-intelligence programs, why should anyone ever pay any attention to a program that is trying to figure out connections between little strings of letters like abc and xyz?" pg 168