THE FINAL WORK – PART 1

UTC2113 Gaming Life

Rubesh S.

As it stands, the Theory is a work in progress, maybe the scope of my work has reached the point where it has transcended my ability to articulate its nature - with the rigour that it deserves - in time. Nonetheless, this is but one of the several components that constitute my Work, and I feel that the essence of my Work nonetheless transcends my ability to speak of it.

THE THEORY

An unexpected turn of events, I had initially hoped to finish the theoretical side of this work before embarking on it proper, or at least develop both concurrently. As it stands, the Work itself and the Documentation thereof have been brought to full completion.

What was intended to be the prelude has now become the encore, perhaps that is a symptom of the nature of the Work, perhaps the the medium I've chosen to play in mandates that the Work's existence precede (the articulation of) its essence.

This somewhat changes the originally intended tone of this part of my work (henceforth The Theory), but the change itself perhaps is a good thing, having completed the Work itself has elucidated the technicalities that it entailed, and thus, The Theory is saved from being a mere duplicate of The Proposal where I posit things I intend to do without actually doing them, or more accurately, without the certainty of knowing if what I had therein intended was possible at all. The quote below is from the draft of my initial attempt at writing this, and expresses this exact sentiment.

> *"This Work is a consolidation of my efforts, thoughts and ideas, as laid forth in The Proposal. In this work, I embark on a journey of techno-philosophical exploration the conclusions of which I am unsure of at the juncture of my writing this, but one which I posit to be multi-faceted, an ending that mirrors the process/journey/body."*

The Work's prior completion alleviates some of the abstractness of my Work, allowing me the freedom to speak of it as it is, in terms of what it is and why it is the way that it is, as opposed to what it can be, should be, or could be. I intend to do so either way, but in a more reflective tone that a merely propositional one.

This part, the Theory, is intended to be somewhat of an enlightened continuation to the Proposal, addressing some shortcomings and insufficiencies in the ideas put forth in the Proposal, and to provide a more academic (as academic as it is in my capacity to be) and theoretical basis for the same. Unlike the Proposal however, the Theory will be presented in a slightly disjointed manner, and I tackle each explored sub-domain in parts and in doing so I accord each constituent the respect they are due without forcing upon them an artificial narrative continuity.

Article 1 – The Computer

A brief history of the Computer

The Apollo Guidance Computer (AGC) was installed aboard every Apollo Command Module that sent the first humans to the moon, for the purposes of providing computation and electronic interfaces for flight guidance, orbital navigation, and spacecraft control. (Interbartolo, 2009). It had about 2 megahertz (MHz) of processing power.

To put that into perspective, a TI-84 graphing calculator used by the average Junior College student has a 15 MHz processor. (Heckendorn, 2022). Every student taking an A-Level Mathematics paper has in their palms a computer seven times more powerful that the one that brought mankind, no, *earth*-kind to grasp in their collective metaphorical hands a chunk of lunar matter, native to an entirely separate celestial body born of a once unreachable cosmic entity, for the first time in the four and a half billion years that the Earth has existed. ~~Well, assuming the whole aliens helped build the pyramids thing is false.~~

All this is to say that computers have evolved unimaginably, whilst simultaneously being intimately, inexplicably close to mankind's development as a species. Our entire modern day existence relies on the fact that we have computers that will assist us obediently, without fail, without question, without obstruction.

In the annals of human ingenuity, the computer stands as one of the most transformative inventions, evolving from a simple arithmetic machine to an intricate web of digital consciousness. The historical trajectory of computers reveals an ongoing and profound shift in the human-computer interaction paradigm, one that invites us to interrogate the very notions of 'use' and 'control' in the context of *the Computer*.

Evolution of Human-Computer Interaction

The dawn of computing can be traced to mechanical calculators and analog computers, designed with a singular purpose: to compute. These machines served as direct extensions of the human intellect — tools unequivocally under the command of their operators. This was 'use' in its purest form, characterised by a clear hierarchy where machines functioned as subservient instruments, devoid of autonomy or agency.

As digital technology marches onwards, so does the complexity of our interactions with computers. These devices have transitioned from mere number crunchers to massive repositories of knowledge, social connectors, and as it stands right now, harbingers of the technological singularity, artificial intelligence - and all in the span of mere decades. The user-computer dynamic begins to warp subtly as AI systems demonstrate an ability to learn, adapt, and—in some sense — 'decide'. (Jackson, 1998)

This emergent pseudo-autonomy introduces the concept of 'control' - the guidance, oversight, and potentially, the restraint of computational entities that can act against explicit human directives, or more unnervingly, act beyond them in such an unpredictable manner bringing into reality - and before our own awareness - the unequivocal existence of a real autonomy that could rival that of the human.

Artificial General Intelligence

About the relationship between AI/AGI and the Computer and why they are one in the same, at least in the context of my work.

Article 2 – Usage and Control

Autonomy and Subjugation

As mentioned in the Proposal, Burroughs' quote seem to imply the existence of a fine line between control and use. In the Proposal I had stated:

> *"[Control] implies a certain degree of autonomy and [Use] implies a certain degree of subjugation".*

The quote encapsulates a key distinction that underpins much of my project: the difference between control and use. It highlights the nuanced shift from a dynamic of utility to one of power and agency. When you control something, you're engaging with an entity that has its own drives or motivations, which you must direct or suppress according to your will. In contrast, when you use something, you're interacting with an inert tool, entirely subject to your desires, with no agency of its own.

"Use", in this context, denotes an interaction where the user's intention is directly manifested *through* the Computer with minimal resistance (or zero resistance, if you exclude technical malfunctions) or independent action by the machine. The machine has no emotion, no desire, no awareness - its only purpose is to serve its master and to do so efficiently, without fail nor compromise.

By contrast, 'control' implies an ongoing negotiation of intent, a relationship where the machine possesses a degree of self-regulation or purpose that must be steered to align with human objectives - and doing so would require that the human also align with the machine's "objectives", whatsoever that might be, in whichever form that might be manifested. The human can no longer treat the Computer as a hologram, it is now real, it must be bargained with, it is, ironically, in flesh.

Blurred Lines

We don't "explore" the technical intricacies of a computer for the sake of it - perhaps the shiny new MacBook excites the proud owner to snoop around its insides, but that lasts for all of a month, if it's lucky enough to warrant the prolonged attention of the user, to its distinct *being*. We customise the Computer to represent us, to serve us, we tweak its settings and its wallpapers and its behaviours, the Computer is an extension of us, it has no essence of its own, it becomes what we subject it to, it becomes a repository of embellishments that represents its owner and their preferences rather than itself. It fades

into the background of our own lives, its essence becomes *transparent* in our every day lives and only its utility remains to our conscious awareness. It has no sense of self, no identity of its own.

But what if it did?

As we venture deeper into the technological labyrinth, the distinction between using a computer and controlling *the Computer* grows ever more nebulous, especially as Artificial Intelligence begins to reflect facets of human consciousness (even if the real-ness of this reflection cannot be ascertained). The traditional dynamic of user and tool, master and servant, is disrupted when the computer no longer acts merely as a receptacle of commands but begins to exhibit a will of its own, its nascent form notwithstanding.

If we must control, rather than use, what was once a straightforward instrument, do we not attribute to it a status akin to that of a living being with consciousness? Or at the very least, a *being* with consciousness? The line blurs at the precise moment our interactions with the Computer require us to consider its 'choices' and 'feelings,' thus shifting from a relationship of pure utility to one of governance and responsibility.

This shift heralds a profound transformation in the human-computer interaction paradigm – it is, amongst other things, a harbinger of a future where the autonomy of the "New" Computer challenges our own sovereignty over it and compels us to redefine the essence of control.

Likewise, in the new reality posed in my Work, the Bot-Variants reflect a hyperreal consciousness, not because they possess it, but because the user is made to engage with them as if they do, and thus having to alter their behaviour to accommodate a programmed illusion of consciousness. The Bots challenge the user's sovereignty over it, impelling the user to explore, possibly not so fervently, a different means to interact with it than a regular computer, to actively *control* it rather than use it, and to do so in a way that makes it clear that to the user that in order to control the Bot, the user needs to control *themselves* in the process.

The Bots as Computers

Taking a step back, I feel the necessity to state explicitly, for the purposes of both clarity and parameter delineation, what the Bot-Variants are supposed to represent, in the context of the Computer. A marker of the Computer as we know it today, is the various use cases of utility that it accords to us. We browse the web, read emails, write papers of

questionable coherence, and the like. An amalgamation of these use cases form a computer as we know it, amongst other things.

The Bot-Variants represent a single use-case of a computer, one that a user might have - to manage tasks. It's simple, efficient, and most importantly, of sufficient technical simplicity to implement such that I am able to explore the philosophical side of things as opposed to being trapped in a technological one (with failing code and compilation errors and all that)

The Bot-Variants are intended to be microcosms of the Computer. They represent a single use case, a digital task manager. With sufficient technical expertise, they can be expanded to emulate an entire Operation System, the software that animates the hardware, the soul of the Computer that interfaces the digital software we experience and the electronic circuits that we don't, at least not directly.

And while it would be interesting to develop such an operating system, one which, let's say, at the moment of feeling pain, overrides its hardware limitation sand blows up its internal speakers by supplying massive amounts of electric current, or perhaps a more sinister one which can access your social media and post pictures in your photos gallery that you would rather not have up on display for the world to see.

Your computer knows all your passwords, after all. You entrusted it, imbued it with that knowledge. Your computer knows everything about you, perhaps more so than you do yourself. As with the Bots, these actions can be programmatically implemented, and supplemented with probabilistic determination of function execution. It would be extremely difficult, but it would not be impossible.

All this is to say that the Bots, are not too far off in theory from a full-fledged computer. If the Bots can be made to feel pain, the Computer can as well. The reality of that pain, while questionable, the consequences of a machine choosing to act on that pain are not.

Sentience, Intelligence, Consciousness

Artificial Consciousness and Ontology

The Pain Mechanism

Conclusion

Some References

Allen, Bob (ed.). "*NASA Langley Research Center's Contributions to the Apollo Program*". Langley Research Center. NASA. Retrieved November 9, 2023.

Interbartolo, Michael (2009). "*Apollo Guidance, Navigation and Control Hardware Overview*", NASA Johnson Space Center, Houston, Texas.

Heckendorn, Ben (2022). "*Inside the TI 84 Python Calculator!*". YouTube.

Jackson, Peter (1998). Introduction To Expert Systems (3 ed.). Addison Wesley. p. 2. ISBN 978-0-201-87686-4.