FYI: My opinions in this essay are heavily influenced by the second book of the Daemon series, "*Freedom (TM),"* which I recommend very much! In my opinion, the first book on its own only paints half the picture of what the Daemon is and what it can do.

To start off, lets answer the question of whether the Daemon is "intelligent," and if yes, what kind of intelligence it has. This requires a common understanding of what we are calling "the Daemon," among a few choices:

- Networked computers
- Software
- Human operatives (The Darknet Community)
- Matthew Sobel

I would say, all of the above! The Daemon system is inherently the after-life persona of Matthew Sobel in the form of a collection of distributed computer programs, running on various computers and coordinating via the Internet. It is maintained-by and commanding a community of human operatives. This system is inherently intelligent (adaptive, self-preserving, evolving) through its human parts (Matthew Sobel and the Darknet Community). In this view, the computerized components of the Daemon are merely infrastructure: A social network which allows Sobel to form and control the Darknet community.

However, you might disagree with a characterization of the Daemon that reduces its computer-based components to a "social network" role. You might say that in parts of the book like (1) the police slaughter inside the Sobel residence, (2) the recruitment of Loki and other operatives, (3) the systematic takeover of corporate computer networks, or (4) the piloting of the Autom8 robot cars, the Daemon has shown intelligent autonomy outside of human involvement.

This is hard to argue with. I can hand-wave the recruitment protocols and the residence defense systems away as something that Sobel just might have known how to transfer from a Game world into real life. But the autonomous driving capability, as well as the corporate network takeovers, are happening in extremely complex, changing environments. One cannot develop a software for these purposes in a Game environment. Both tasks (driving and hacking) are skills which must be carefully acquired and learned from experience.

At this point, there are two possibilities: Either the Daemon is only recruiting people and assigning tasks (some hard coded by Sobel, some dynamically issued by the operatives) to humans. In this case, human operatives could drive cars through difficult traffic situations, and the only involvement of the Daemon in corporate network hacking would be mostly social engineering. BUT: If the Daemon does not leave either of these tasks (driving or hacking) to humans, I believe it MUST be intelligent to continuously succeed in a changing and increasingly hostile environment. This intelligence must be general, not narrow as claimed in the book.

Let us assume the Daemon's hacking AI was a narrow rule-based expert system. In this case, how does it respond to network defenses which have been built "outside the box"? How does it hack networks which do not exhibit any of the (quickly aging) exploitable weaknesses listed in its database? How does the narrow AI even learn to use and understand a REST API that was built after Sobel's death? The Daemon would always need to find new and specific zero-day bugs in real-time. I think any intelligence that has such an ability would be far beyond "narrow."

This leads me to the second question: Is the story of the Daemon believable? Could it happen in real life? I find this question especially interesting, because the book "A thousand Brains" by Jeff Hawkins so clearly argued against a scenario as laid out in Daemon. Jeff Hawkins claimed that the subsumption of Humanity by an AI is almost impossible, because (a) no AI could gain the necessary experience without slow and painful real-life learning, and (b) no AI could command enough humans to fully take away their power over it.

The Daemon gets around both problems by exploiting a flaw in capitalism:

1. Companies lobby for deregulation and privatization of infrastructure and government responsibilities.
2. Many of the empowered private companies are profit (greed)-driven.
3. Greed leads to cost-cutting.
4. Cost-cutting induces underpaid, desperate human employees and barely secure corporate networks/infrastructure.

The Daemon grows by recruiting economically desperate members of society and exploiting weak corporate computer networks. In my opinion, this is a credible scenario for the growth of an AI organism. There is however a major component of the Daemon that is at the root of its success, and the biggest argument against its viability for appearing in real life: Matthew Sobel.

Even the minimum set of required achievements by Sobel which would be necessary to launch the Daemon is **very impressive**:

- Hack DARPA to get access to secret research (ultra-wide-band communications, light- and sound-based weapons).
- Robust design of a variety of human-machine interaction/dialogue protocols to facilitate various milestones in the rise of the Daemon.
- Carefully crafting the social setup of Detective Sebeck as a scapegoat for the "Daemon Hoax."
- Engineering and building the Autom8 robot car.
- A level of foresightful planning comparable to Psychohistory (the science of calculating the future from the Foundation series): Correctly predicting the responses of different government agencies as well as private companies (and individuals in private companies) to craft the inception of the Daemon.

I would say, this is impossible. It would need a team of people a year (or ten?) to accomplish each task separately, and all involved Software systems would need constant maintenance and bug-fixing afterwards. Computers fail often and in unpredictable ways. The idea that Sobel's systems are somehow indefinitely perfect is just incredible to anybody who has spent any amount of time writing software.

However, I want to end the essay with a surprising admission: I like the Daemon. And I think a slightly less "wonky" (unbelievably complicated) version of it might be possible.

(Book 2 spoilers ahead)

Book 2 of the Daemon series talks a lot about the goals of the Daemon and the community of people it recruits. The human members organize themselves into local factions, which act independently and cooperate with each other via the "Darknet" to build a global society. Every

member has a guild (Programmer, Engineer, Builder, Rogue, Farmer etc.) and a level, which determines their level of power. Members also rate each other to establish trust levels. Darknet factions make decisions through collaborative real-time voting.

I find such a local, communal vision of a deliberative democratic society very interesting. We are at a technological level where traditional, strongly hierarchical forms of government are gaining credible competition from distributed real-time social networks! For example, when I think about what government on Mars might look like, I might prefer a Darknet-style system over a traditional parliamentary democracy.

However, I do not want such a society to emerge from a circus of violence as much as Dan Suarez' Daemon does. I hope that humanity will be able to advance its systems of government by means of gradual change and peaceful action. However, the increasing wealth distribution gap does not speak in favor of this possibility. The powerful will always want to maintain their power, and this is incompatible with a software-defined society where everyone's chances are truly equal. Maybe it will take someone like Sobel to engineer our future as a species.

7546 characters, according to Word.