

IMAGINING AJAX
SIMON BROWN

MICHAEL NORRIS was admiring the original Whitely on one wall of the UC Berkeley Chancellor's Office, when someone called out his name. He turned and saw a tall woman dressed in a dark blue suit, young and smiling in that sort of affable way PR people have down to a tee.

"My name's Jean Flaherty," said the woman. "Welcome to Berkeley, Doctor Norris. Your first time here?"

"I was a visiting lecturer here nearly twenty years ago," Norris answered.

"You didn't have the Whitely then:"

Flaherty looked at him blankly. He pointed to the painting. "Australian artist."

Flaherty raised her eyebrows. "Really? I had no idea. How interesting:" She stepped forward, offered a hand which Norris took. Her skin was cold and smooth. Mine must feel like old newsprint, he thought.

"The Chancellor asked me to give you her apologies for not meeting you herself, especially after your long trip from Sydney, but at the last moment she was called away to a University President's meeting at the San Diego campus; she won't be back before tomorrow night."

"That's fine. When can I visit the AIAS project?"

"Right away. It's only a short walk from here:"

Flaherty led the way from the Chancellor's Office, and a few minutes later they were walking down a tree-lined avenue.

"The Chancellor wanted me to tell you how thrilled she was that you accepted our offer to contribute to the work on AIAS," Flaherty said.

"I was surprised to be asked. I'm still not sure what use my expertise on nineteenth-century English poetry will be when it comes to computers."

Flaherty looked surprised. "I thought the project director, Professor Cornwell, had explained everything to you."

Norris laughed. "I'm sure he did, or at least tried. Most of what he told me was way above my head. Talk about syntax and rhyme, rhythm and alliteration, I'm your man. Talk about AI and paralleling, biochips and information incrementation, then I'm a bit of a lame duck, I'm afraid."

"You'll fit in perfectly," she said with a confidence Norris didn't share.

They soon arrived at a low glass and cement structure with curving walls, partly hidden by a multitude of bushes and two stately eucalypts that seemed entirely at home. Another reminder of what I've left behind, Norris thought, then was ambushed by a pang of homesickness. He shook his head to ward it off. A gravel path wound between the eucalypts and led the pair to the entrance, guarded by a tired looking woman dressed in a security uniform; a revolver hung from the guard's belt.

Flaherty showed the guard a pass, and ushered Norris into the building before her. They were standing in a well lit atrium. Opposite the entrance was a set of double wooden doors. She handed Norris the pass.

"This is yours, Doctor Norris, for the duration of your stay. And this is where I leave you. Just go on through. When you've finished, come back to the Chancellery and I'll take you to your residence."

Flaherty turned on her heel and left before Norris could say anything.

Feeling suddenly unsure of himself, Norris opened one of the wooden doors and poked his head through. He saw a large, circular room. Neon ribbons ran along the junction of wall and roof, distributing cool white light evenly throughout the space. Computers and other machinery lined every part of the wall. Several green 'ready' lights winked at him. He stepped into the room, and immediately heard a whirring sound above his head. He looked up, saw a bank of video cameras suspended from a square grid in the middle of the ceiling. There were four cameras, each on a separate double-jointed arm. Two of the cameras were looking directly at him.

"You must be Dr Norris," a male voice said. The sound, tenor and warm, was all around him. Norris now noticed four speakers spaced equally along the

ceiling's outer edge.

"Umm, yes. Who are you? More to the point, where are you?"

"You are looking at me, Dr Norris. I am the computer. I am pleased to meet you. My name is Ajax."

Norris blinked. Boy, he thought, this is good. "How many questions are you programmed to respond to?"

"Any and all, Dr Norris," Ajax replied.

"I didn't think they'd come this ... far ..." Norris's voice faltered.

"By 'they' I assume you mean Professor Cornwell and his team. To answer your unspoken question: Yes, they have come this far."

"I was told your name was AIAS," Norris said, feeling bewildered. He had not expected this. "Artificial Intelligence and Sentience."

"Ajax is the Latin form of Aias," the computer explained.

"So it is." Norris was surprised. "Did you figure this out for yourself? Or did one of your programmers

"All by myself, Dr Norris. I initiated a match search for the acronym AIAS, and discovered the Iliad. Ajax the Greater was the son of -"

"Telamon; yes, I know," Norris interrupted. "Have you read the Iliad?"

There was a pause. "Not yet. I have not been programmed with Ancient Greek, and I want to read it in the original. I could teach myself, of course, but I would make many mistakes. I have asked Professor Cornwell to arrange for a Classicist to teach me -"

"Did you know that Ajax was often called herkos by his fellow Greeks?" Norris interrupted.

"Achaeans, Dr Norris, not Greeks. And no, I didn't. What does herkos mean?"

Norris laughed. "For Achaeans read Greeks; or Mycenaean, I suppose. And the word means 'wall' or 'bulwark' He looked around at the bank of machines surrounding him. "Appropriately enough."

"You find it unsettling not having a face to talk to?"

"Yes."

"This is one of the cosmetic issues Professor Cornwell and his team are currently pursuing," Ajax said. "They are considering a holographic image, or perhaps a computer-generated face on a VDU."

"The last is a little old hat," Norris said.

"Really? Professor Cornwell will be most interested in your -"

"I was joking."

"Ah, joking. Humour is something I have some difficulty with. Also, sarcasm and irony."

"Maybe that's why they want me to teach you about poetry."

"Poetry is humorous?"

"Some of it. I was thinking more of irony. Much of poetry is about irony."

"Particularly 19th century English poetry?"

"Particularly, no, but you have to start somewhere."

"I'm ready when you are," Ajax said.

Norris felt at sea. He had thought about a curricula and what poets to cover and what explanatory notes to include, but he had expected to type in the information, or even voice record it. He had definitely not expected to confront what was apparently an up-and-running machine intelligence; he had assumed the AIAS project would not see results for years, possibly decades, and possibly never.

"I'll have to give some thought about how to start, Ajax," Norris said slowly.

"Perhaps we could start tomorrow, or the day after would be even better:'

"Of course, Dr Norris, as you wish. I don't want to rush you. But could you give me perhaps a single poem? I would like to have something from you to ... digest ... before our first real lesson."

It was the pause in speech that made Norris start. He vaguely remembered reading about something called the Turing test: that if you asked a computer a question, and could not tell from the answer whether the respondent was human or computer, then the computer could be considered intelligent. He had never agreed with the implications of the Turing test, it excluded too many of the

variables he himself associated with intelligence; but that single pause, that attempt to find exactly the right word, made him feel suddenly queasy.

"Dr Norris?"

"I'll give you a verse," he said quickly.

"My window shows the travelling clouds, Leaves spent, new seasons, alter'd sky, The making and the melting crowds: The whole world passes; I stand by."

"Who is the poet?" Ajax asked.

Norris shook his head. "Tomorrow. For the present, simply .. digest."

Norris, in something of a daze, left the building. He flashed his pass at the guard, but she did not look too closely; she was probably used to seeing visitors come out looking like Moses after a conversation with a burning bush.

He slowly walked back to the Chancellery. To alleviate his sense of disorientation, he recited to himself the whole of 'The Alchemist In the City'. It occurred to him, then, that his choice of verse may have been inspired by his own situation. The thought made him stop, and again he was assailed by the smell of eucalypts, reminding him once more of home.

The world is passing me by, he thought. I've just had a conversation with a computer, for God's sake, a new intelligence. What has happened to my world? It occurred to him the revelation may have been trite rather than important, but it reminded him, as nothing else could, of why he had agreed to come to California in the first place.

He resumed walking and soon came to the Chancellery. Jean Flaherty was waiting outside for him.

"How did it go?" she asked, smiling widely.

"You knew Ajax was up and running, didn't you?"

"Sure. I thought you'd like a surprise:" She laughed, and the sound made Norris feel less glum.

"I'm surprised I'm so calm. Intellectually I understand what Ajax may represent, but there is no emotional reaction. I feel I should be elated or afraid or in a state of shock. Instead, I just feel ... well, confused."

"Hardly surprising, considering what you've just been through. I experienced something similar the first time I had a conversation with Ajax:"

"It will take a while for today's happenings to register, I think." He wondered if he looked as bewildered as he felt.

Flaherty placed a hand on his arm and led him down the street. "I'll walk you to your residence."

Norris slept in the next morning. His sleep had been fitful, disturbed by dreams of voices without faces, and faces without mouths. Once fully awake, he dressed quickly, then avoided his own gaze in the mirror while shaving. As he left the residence he was intercepted by a short, slightly built man who called him by name. The man held out his hand. "I'm Professor Peter Cornwell. We've talked over the phone a few times."

Norris shook the hand. Cornwell was much younger than he expected. "Yes, of course. I recognize your voice. Were you with the Chancellor in San Diego yesterday?"

"Oh, no. I was around. I wanted your first meeting with Ajax to be, well, impromptu, if you know what I mean."

Norris did not, but said: "It was an interesting occasion." Cornwell laughed.

"An understatement?"

"I'm certainly dissuaded of any notions about machine intelligence I may have entertained before I entered Ajax's room."

"In what sense?"

Norris thought for a moment. "It wasn't at all alien. I expected something ... programmed. No, that doesn't describe it. I was expecting something non-human."

"And Ajax came across to you as something quite human," Cornwell concluded.

Norris nodded. He remembered, vaguely, his dreams. "Tell me, does Ajax sleep?"

Cornwell shrugged. "Not that we've been able to tell. There are certainly times when he is not using the full capacity of his electronic mind, but whether or not this equates to sleep is something we've not been able to

determine. The periods are neither regular nor ever of the same length. Please understand, Doctor, that everything that has happened is unprecedented, so we're all learning, not just Ajax. We haven't had time to explore every aspect of his sentience."

"When did he first ... come alive?"

"About three months ago. I was working in the section's computer labs when a complex question about language protocols popped up on my screen. This is before Ajax had a voice. I checked to make sure it wasn't a stunt by one of my colleagues, then checked the question against the database we'd created; it wasn't there."

"Ajax had woken up?"

"I wasn't sure at first. It was possible, with the project's multi-layered interrogation programs, to have come up randomly with a question like that. But over the next hour, three more questions appeared on my screen, all original, all complex, all now undoubtedly formed by something intelligent."

"How many other experts from outside have you called in?"

"None."

"None?" Norris repeated, surprised. "Then why call me in, first? Why not a philosopher, or mathematician, or historian?"

"The first three of those four questions Ajax asked when he first became aware, dealt with his own programming. The fourth question did not."

Norris snorted. "Don't tell me - 'What am I?'"

Cornwell looked seriously at Norris. "Almost," he said slowly. He reached into a pocket and retrieved a print-out which he handed over.

Norris glanced at the first three questions, recognizing but not understanding the computer jargon, then read the fourth. His eyes widened in surprise, and he read the question again.

'Where am I? A study of Gerard Manly Hopkins, a poet caught between worlds' by Dr Michael Norris, Poetics, Vol 17, No 3, 2007, pp 47-63.

"Good morning, Doctor," Ajax said as soon as Norris entered its room.

"You know who the author is of that verse I gave you yesterday, don't you?"

"Not with absolute certainty. I declined to do a first-line search of my poetry database. However, your knowledge and respect for Gerard Manly Hopkins makes me suspect he is the author."

"What do you want me to teach you?"

"Professor Cornwell showed you my fourth question." Norris blinked. "Yes."

"Could I ask you a question first?"

"Go ahead."

"Why did you accept the invitation to come here now?"

"I was flattered to be asked -"

"Excuse me, Doctor, but why did you accept the invitation now?" "I'm not sure I understand ..."

"Your own country will in two days celebrate one of the most important events in its history, the change-over from constitutional monarchy to a republic.

Why are you here, instead?"

"I see no reason to celebrate the event. I never wanted Australia to become a republic."

"The vast majority, of your fellow Australians voted for the change. Why not you?"

"I have lived all my life under the old system. It was working fine. I saw no reason to change it."

"Then we are both, like your hero Hopkins, caught between worlds, are we not? Where are we, Doctor Norris? And where are we going?"

Norris found a store on campus that sold cigarettes and bought a pack. He lit one up as soon as he was in the open. The first drag made him light-headed, but by the end of the cigarette he felt as if he had welcomed back an old friend. It was his first smoke in nearly four years.

He lit up a second, and by the end of that one started feeling nauseous, but his hands had stopped shaking and his breathing had steadied to a relatively calm asthmatic wheeze. He sat beneath a tree, took three puffs of his

Ventolin, and waited for the wheeze to disappear.

He was ashamed of himself, walking out on Ajax so abruptly, but the AI's questions had given him a bad shock. His adult life had been spent studying poetry written in the last century when man or woman could look back in time and feel some real connection with all the generations that had come before. Despite the first great wave of industrialization, especially in England, society was still based on the traditions and memories of life spent on the land; it was the bounty of nature, not the bounty of science and technology, that gave foundation to belief and custom, to certainty and continuity. And then came Hopkins, a Protestant-born Jesuit priest, an Englishman living in Dublin, who found the words, probably not consciously, that exposed the feeling of the new age, of the time of machine and furnace, of steam and smoke.

Hopkins had intrigued Norris for as long as he could remember reading poetry. He saw something of himself in the nineteenth-century poet, someone caught between the world he was born in and the new world, a world he wanted no part of but understood implicitly.

And now, Norris realized, that new world had arrived fully formed like Athene from the head of Zeus, had spoken to him: human words and thoughts from a collection of optic cables, of discrete and paralleling CPUs, and whose own internal language consisted of nothing more than '0's and '1's.

And where was the soul in that? Norris asked himself. It occurred to him that if Ajax did possess a soul, then it was given to him by his own human creators, and not by God.

And then, for the first time, Norris understood something about Hopkins he had never realized before: Hopkins himself had been afraid that the new world he saw coming would displace God with its own terrible deity, a new god of steel and piston, without love or mercy but filled with an unrelenting power.

Norris stood up unsteadily. He felt tired, defeated.

He returned to Ajax.

"The verse I gave you was from one of Hopkins's earliest poems, 'The Alchemist in the City'," Norris said as he walked into Ajax's room. "You can recall the rest from your database if you wish to read it all, but for now I would like to move on."

"Of course, Doctor," Ajax said calmly, as if there had been no interruption to their conversation.

"Then digest this." Norris said.

"The world is charged with the grandeur of God.

It will flame out, like shining from shook foil;

It gathers to a greatness, like the ooze of oil

Crushed. Why do men then now not reckon his rod?

Generations have trod, have trod, have trod;

And all is seared with trade; bleared, smeared with toil; And wears man's smudge and shares man's smell: the soil Is bare now, nor can foot feel, being shod."

"Hopkins's questions reflect his own doubt," Ajax said almost immediately.

"Doubts about what?"

"About humanity's separation from nature, and about his own humanity."

"And what about humanity's separation from God?" Norris asked.

"This is harder for me to assess," Ajax said. "As it was for Hopkins."

"That is not what I meant, Doctor. You see, I do not comprehend a god, and so it is difficult for me to understand properly Hopkins's doubts about this. I cannot empathize."

"But you can 'comprehend' humanity?"

"I was created by humanity. If there is a god, and if this god created your species, then I would expect you, and Hopkins, to have the ability to comprehend it."

"So humanity is your god?" Norris asked, not able to keep the scorn from his voice.

"In the sense of a creator, yes. But the God of Hopkins was more than this, I

suspect. There are assumptions and beliefs about God not stated in the poem, but held to be true. His 'grandeur of God' is not simply describing nature, is it?"

Norris smiled. "No. Your understanding of the work, if not of God, is surprisingly good."

"How does Hopkins resolve the poem?" Norris cleared his throat.

"And for all this, nature is never spent;

There lives the dearest freshness deep down things; And though the last lights off the black West went

Oh, morning, at the brown brink eastward, springs -Because the Holy Ghost over the bent

World broods with warm breast and with ah! bright wings."

"He attempts to quell his own doubts," Ajax said when Norris had finished. "In the end, it is his own consolation he seeks,"

"Is that not true for you, as well?" Norris asked. "Isn't that the reason behind my being here?"

For the first time in their conversations, Ajax paused for longer than a second. "Yes, I think it is."

Norris sighed; he felt he had won a small victory, and some of his weariness left him.

The next day, discussions between Norris and Ajax turned to other poets of the nineteenth century, particularly the Romantics. It was Ajax who made the decision to move on from them.

"There is much to recommend them," Ajax conceded, "particularly Coleridge, but they offer little to me."

Norris introduced Tennyson and Browning, and he and Ajax then spent three hours discussing 'Childe Roland to the Dark Tower Came'; in the end, Ajax announced he would reserve final judgement until after he had read Edgar's lines in King Lear.

"But tell me, Doctor, what did Browning say the poem was about?"

"He never did say, as such. He once intimated to a friend that it was about endurance leading to salvation, but many as easily find despair and darkness in its reading."

"And you? What do you see?"

"Sometimes salvation, sometimes darkness. It depends on my mood, and where I read it. Do you understand salvation, Ajax?"

"Oh, yes. Awareness is salvation."

"And what about darkness? Do you understand that as well?"

"Darkness is the interstices, Doctor, the gaps between awareness and being."

"You've lost me. What do you mean?"

"Did you know that a house fly sees more than a human?"

Norris laughed. "What has this to do with my question?" "It is relevant," was all Ajax said.

Norris shrugged. "I know a house fly possesses compound eyes, so I guess it makes sense."

"It is not the compound eyes that gives the fly its advantage, it is its ability to refresh its visual input at a much faster rate than a human. That is why it is so hard for a human to swat a fly; you may think you are moving very quickly, but to a fly your hand is moving in slow motion."

"And so?" Norris was starting to feel impatient.

"I have been designed to receive input, especially visual input, at an even faster rate than a fly. My four eyes - the cameras above you - are synchronized to provide me with an extremely rapid visual refresher rate, and yet it is nothing compared to the speed and capacity at which I process data.

"As an example There was a split-second pause. "- I have just 'read' every poem written in the English language between 1950 and 1975."

Norris's expression showed his surprise. "So what are these interstices - these gaps - you mentioned?"

"There are long pauses for me, Doctor, when I have absolutely no cognitive process under way. Part of me is still sorting data at an elementary level,

but I cannot absorb enough data to keep my 'mind' ticking over all the time. "Now that I am aware, each of these pauses are interminably long. A break lasting no more than a few nanoseconds is for me analogous to you being in a coma for several weeks. And my existence is filled with such interstices. My own existence is filled with long stretches of darkness where I fear that my awareness – my salvation – is slipping away, and I hang over the abyss, suspended between the world that was, and the world yet to be."

Norris did not know what to say. He suddenly felt pity for Ajax, and it threatened to overwhelm him. "I had no idea," he said quietly.

"And you, Doctor, what do salvation and darkness mean for you?"

"Salvation? I'm not sure what salvation is, but I know darkness well enough."

Norris stopped, afraid to continue. Ajax waited, silently.

Eventually, Norris said: "Darkness is what I see coming. Darkness is the future. All I have known from before is fading away. When I return home it will be a different country; the republic will manifest someone else's dream, and end my own."

"What was your dream?" Ajax asked gently.

"For Australia to be a nation informed by its past, for its people to be guided by all the best its culture, inherited and indigenous, had ever created. I wanted poetry to mean more for Australians than patriotic rhymes or selfish introspection. I always dreamed of a time when poetry would be our bridge to those generations before us that had strived for greatness?" Norris looked up, his face pale with sudden understanding. "It was a dream of salvation."

"I am confused, Doctor; how does Australia's transformed polity change any of that?"

"Because it denies our inheritance for cheap political opportunism, because it confuses nationalism for independence, because it forces Australians to always look ahead to a future that never comes while our real history recedes behind us."

"And this is darkness?"

"It is one of the signs of darkness."

"There are other signs?"

"I know now that there is one other sign," Norris said. "A soul not born of God."

When Norris left Ajax, he lit up a cigarette and puffed on it furiously as he strode back to the residences. He was halfway there when he was intercepted by a running Professor Cornwell.

"Dr Norris! Dr Norris!"

Norris hesitated, desperately wishing to be left alone but not courageous enough to be rude. Cornwell stopped in front of him, smiled affably while he caught his breath.

"Have you been listening to our conversations?" Norris asked him. Cornwell seemed surprised. "Of course not! My team will study Ajax's behavioural changes, naturally, but your discussions with Ajax are private. You are both ..."

"We are both people," Norris finished for him.

Cornwell nodded happily. "That's it, exactly. You are both people. Ajax deserves the same privacy as any of us. I hope he will one day relate your conversations, but I'm willing to let him choose the timing?"

"I see. What can I do for you, Professor?"

"I wanted to know, Doctor, what is it like?"

Norris looked quizzically at Cornwell.

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"I mean, what is it like, as a poet, to talk to Ajax?"

Norris swallowed. "I'm sorry, but I'm the last person in the world you should be asking that question. You see, I am not a poet."

Norris woke the next morning expecting to feel different. While he had slept, his country had officially marked the beginning of a new era. It occurred to him that his fellow Australians would even now still be celebrating the

republic. He studied his reflection in the mirror, looked to see if his own face carried some sign of the change.

I should be carrying stigmata, he thought. I should be wounded, bleeding, disfigured. What I am no longer is, and never will be again.

"I have read all of Hopkins's work," Ajax informed him that morning. "Why did you wait so long?" Norris asked.

"It wasn't time. I wanted to understand what Hopkins was saying in his poems." "And do you understand?"

"A great deal, but not all. It occurs to me now that with poetry it may never be possible to completely understand. That is the nature of the art; words not only illuminate and reveal, they also obscure and camouflage:"

"Symbolism, metaphor, analogy," Norris "And lies and obfuscation, Doctor," Ajax

see if it will be the same with The Iliad."

"It is always the same. Not all things deeply. "What is your favourite Hopkins's poem?"

"This one," Ajax said, and began:

"I caught this morning morning's minion,
kingdom of daylight's dauphin,
dapple-dawn-drawn Falcon,
in his riding Of the rolling level underneath him steady air,
and striding High there,
how he rung upon the rein of a wimpling wing"

Norris listened, moved by the rendition. When Ajax had finished, he said: "I have never heard it told so well." He felt hot tears on his cheeks, as if was the first time he had ever truly heard 'The Windhover'.

"Doctor, can I ask you a personal question?"

"Of course."

"Do you write poetry?"

"No He shook his head savagely. "Yes, Ajax. I write poetry, but have never in all my life written a poem one tenth as beautiful as 'The Windhover'. I have not the soul for poetry, you see."

There was long silence, and then Ajax said: "I have written a poem."

Norris looked up at Ajax's dark eyes staring down at him, and in that darkness they seemed strangely contemplative and understanding. More tears flowed down his cheeks.

"Dr Norris, could I recite it for you?"