
From: [REDACTED] on behalf of Ben Goertzel <[REDACTED]>
Sent: Saturday, January 19, 2013 9:17 AM
To: Jeffrey Epstein
Subject: Google / Kurzweil

Hi Jeffrey,

The visit to Google was very interesting.... I'll summarize some of the highlights below: first regarding OpenCog/Google collaboration, and then regarding the situation of AI research and Ray Kurzweil at Google in general...

OPENCOG & GOOGLE

In terms of OpenCog and my own work, it seems clear that, if I can put together the right sort of demo for them, it will be plausible to start a serious collaboration with Google (via showing this demo to Ray who can then show it to Larry Page). It is clear to Ray and me what kind of demo this would be. Basically what we need is a nice demo of OpenCog

-- translating natural language into logical relationships (as in some simple examples I showed you at your house in a Scheme file, but working more robustly)

-- performing inference to connect these relationships with Google Knowledge Graph

The goal from Google's perspective would be to annotate web pages more thoroughly with information from Google Knowledge Graph, which is a big focus and bottleneck for them at the present.

Ray's feeling is that if I can show him that, then we can figure out a practical way for Google, me and OpenCog to collaborate on building something having great economic value to Google, as well as having some incremental value in building toward AGI. And this will be a step toward, potentially, getting a lot more of Google's resources oriented toward AGI and OpenCog....

If things go really well, we could have a demo like this by late summer or early fall.... Late fall would be easier. The core ideas and code are in place to enable this, but there's still a lot of work to be done. But getting this done, realistically, would probably require having someone in addition to Ruiting (currently our only NLP person) devoted to the task, which I don't currently have funding for.

GOOGLE, AI & RAY

A few points from my discussions with Ray and others at Google (comments derived from various sources are mixed up here)

-- Larry Page is psyched about AI and wants Google to do AI. Nobody else in a high or mid level power position at Google cares much about AI.

-- Their search and ad-placement approaches currently don't use much AI, they're basically just straightforward statistical learning on a very large scale

-- Ray has been given permission to gather a small team of 5-10 researchers (by internal or external recruitment) to work on AI for natural language understanding within Google

-- Recently the following happened to one Google researcher interested in AGI (my good friend and former employee, Moshe Looks). He was given permission to hire 10-15 staff to build an AGI team that he would lead, within Google. He hired two staff. Then he recruited a third, and the guy in charge of processing hires stopped answering his emails. After he probed more deeply, he eventually was told that his AGI project was cancelled. Basically, Larry Page had authorized this person's little AGI team, but then he got distracted and others who don't care much about AI reappropriated the funds. One of his two hires has been reassigned to something else.

-- I believe Ray can avoid the above sort of problem due to his personal relationship with Larry Page, and his strong public persona

-- Clearly, to get significant resources allocated to AGI within Google, Ray will need to first demonstrate that with his small team, he can do something useful for Google.... Then it will likely be possible for him, with Larry Page's help, to marshal significantly more Google resources toward AGI.

-- Hopefully we can help him in this quest with OpenCog. It is a very interesting opportunity, though not without potential pitfalls due to Google's complex internal dynamics.

-- For his near-term work, Ray is not particularly attached to pursuing the ideas from his recent book. He seems to be taking a more pragmatic attitude of "Build something useful for Google by whatever AI works best for the task." Then once he has won Google's faith in this way, he will turn to the stuff in his book...

-- A team following up Andrew Ng's deep learning work with Google (which made newspaper headlines) is working on applying this sort of deep learning to speech processing. To my mind, this stuff basically embodies the notions in Kurzweil's book already. But Ray, I think, sees his approach as more distinct from Ng's

-- Ray's current, germinal team does not seem to strongly agree with his AGI ideas from his book. He doesn't mind this; he is open to healthy dissension and different opinions

-- Ray still has some work to do, to gain the faith of the Google research team and impress upon them that he is a serious researcher as well as a businessman/marketer

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"My humanity is a constant self-overcoming" -- Friedrich Nietzsche <?xml version=.0" encoding=TF-8"?> <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">

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