Subject: My new OSS project...
Posted by mirek on Thu, 31 Dec 2009 12:30:58 GMT

I have registered a new project on GoogleCode:

http://code.google.com/p/genai/

It is supposed to be the platform for experimenting with "evolving" or "selfemerging" AI. Most likely, it will lead nowhere, but I am quite a believer in possibility of Strong AI in near future (20-30 years) and I would like to try some things myself...

Of course, the code is for U++

There is so far only one interesting package, "Gen3", and in fact, it is more funny than anything else.

It tries to "evolve" algorithm for white dots that are moving and eating green dots... (And to make it more fun, sometimes some white dots convert to red dot predators, eating white dots)

(Note: the basic result/failure of experiment is that dots do not seem to evolve reactions on sensory input. Instead, they do evolve very complex movement patterns that seem to replace the need for sensory inputs. Well, uhm, I suppose that is how evolution is supposed to work, after all)

In future, I am planning on "Pac-Man" experiment - trying to find some ways to implement AI capable to evolve engine capable learning to play various variants of the game. We will see...

Mirek

Subject: Re: My new OSS project...
Posted by andrei_natanael on Thu, 31 Dec 2009 17:19:36 GMT

Hi Mirek,
I've gave a try to genetic algorithms but didn't get it to the end(for a project at university), I hope now i will have the time and patient to watch this project evolving   learn something from it and why not writing code if necessary.

Subject: Re: My new OSS project...
Posted by koldo on Fri, 01 Jan 2010 11:00:20 GMT

Hello Mirek

Curious and interesting effort. I did not know you where interested in AI.

Best regards
Koldo

Subject: Re: My new OSS project...
Posted by mirek on Fri, 01 Jan 2010 11:36:02 GMT
View Forum Message <> Reply to Message

koldo wrote on Fri, 01 January 2010 06:00Hello Mirek

Curious and interesting effort. I did not know you where interested in AI.

Is there any computer geek who is not?

Subject: Re: My new OSS project...
Posted by mr_ped on Mon, 04 Jan 2010 08:11:04 GMT
View Forum Message <> Reply to Message

"... but I am quite a believer in possibility of Strong AI in near future (20-30 years) and I would like to try some things myself..."

If possible at all, then IMO yes, it may happen.
Although I'm afraid the 20-30 years is a mix between speed of HW (exponential) and SW (limited by smart humans adding small pieces every year) evolution, and the strong AI itself will be more like pure SW.
But this thing may be tricky to predict, once somebody will jump on the right track, the next development may be blazingly fast, like 10 years from that point and the AI will be very strong.
And there may be as well as 100 years of dead ends before that point.

Although I'm not very current with recent AI development, so I may be well off the real status.

Subject: Re: My new OSS project...
Posted by mirek on Mon, 04 Jan 2010 08:32:05 GMT
View Forum Message <> Reply to Message

mr_ped wrote on Mon, 04 January 2010 03:11"... but I am quite a believer in possibility of Strong AI in near future (20-30 years) and I would like to try some things myself..."

If possible at all, then IMO yes, it may happen.
Although I'm afraid the 20-30 years is a mix between speed of HW (exponential) and SW (limited by smart humans adding small pieces every year) evolution, and the strong AI itself will be more

---

like pure SW.

Well, what I would like to try is to use sort of genetic algorithm to develop "seed" AI SW. That might shortcurcuit those 100 years of dead ends...

Subject: Re: My new OSS project...
Posted by mrjt on Mon, 04 Jan 2010 10:00:34 GMT
View Forum Message <> Reply to Message

Very interesting. I guess most programmers have wondered about the possibility of this at some point, I know I have.

The main problem that occurred to me was creating a complex enough environment to make sensory input useful to the algorithm, which is the problem I think you've encountered. Additionally the AI may need a matching complexity in it's interactions (or influence) with it's environment.

After all, in the natural world you have to get all the way up to very complex multi-celled organisms before you even get light sensitive skin patches.

Subject: Re: My new OSS project...
Posted by mirek on Mon, 04 Jan 2010 11:42:15 GMT
View Forum Message <> Reply to Message

mrjt wrote on Mon, 04 January 2010 05:00Very interesting. I guess most programmers have wondered about the possibility of this at some point, I know I have.

The main problem that occurred to me was creating a complex enough environment to make sensory input useful to the algorithm, which is the problem I think you've encountered. Additionally the AI may need a matching complexity in it's interactions (or influence) with it's environment.

Yes. Exactly.

Quote:
After all, in the natural world you have to get all the way up to very complex multi-celled organisms before you even get light sensitive skin patches.

Well, I would say that with HW power big enough, you should in theory be able to reconstruct the whole evolution.

The really tricky part is how to cheat and what to exclude