



Computer Science

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Artificial intelligence in 2D platform games

1 General Evaluation

The general impression from my first reading of the report is good. The report has a good structure that is easy to follow. It's a fun assignment and I'm sure that the author hasn't had any problems with his motivation of executing and writing this dissertation.

The project has a red line throughout the dissertation and begins with a presentation of what he sets out to do. After that comes a background section, describing AI and games in purpose of making it easy to follow his work in the experiment part. The background over AI was the most difficult and time consuming part of the report to read as it contained a lot of information but the information given in that section benefits the reader and has to be included and read. Next comes the experiment part of the thesis, this part is fairly easy to understand and is not as heavy as the background part of AI, except for some parts that I will mention later. The experiment part describes the actual work that has been done, the three implementations for making a smarter AI agent in 2D platform games. The author then describes the results of what he set out to do, with a fair amount of self credit.

2 Comments on the Project in Relation to the Dissertation

Here I will make some comments on the project as a whole.

2.1 Title

The title is excellent in my point of view, no need to do any changes there. The title mirrors the reports context. It also captures the readers eye and mind in an instance. The word Artificial intelligence is a thrilling area just as the report describes in the beginning, and the word opens the imagination of the reader directly. Artificial intelligence is a discussed subject in many circles thanks to the use of AI in books and movies and the title has therefore free advertising and great power. It's a gratifying subject to write about. Games is also something that our generation think of as fun, and also probably not so common as a topic in d-level dissertations as the author also mentions in the report.

2.2 Dissertation Layout

The layout is flawless, design wise. There is however some minor things to point out. On page vii, there is a headline “Acknowledgements” but it has for some reason no text, I’m not sure if that is intentional or if it is tied together with your preface.

The figures in the report are overall good and give a great deal to the thesis and helps with understanding the text. However where the figures are in relation to its reference is not consistent in the report as a whole, witch means that you as a reader sometimes have to search for the figure backwards and forward in the text if you want to have a glance at it.

2.3 Scientific Method

The report uses a describing method and the work that has been done has been described well and clear.

2.4 Argumentation and Conclusions

About the argumentation in the report and the conclusions I would have liked to se some more references to some of the data that you present.

Other then that I find that you make good arguments from the work you have done and it really shows that your have a strong interest in this field. I also must point out the work of your pathfindig solution. Where you seem to have found something that is usable for your work from a different field and that hasn’t been mentioned in any books you have read about AI or game theory, fun, interesting and smart.

2.5 The Abstract

The abstract does it job well in trying to capture the reader and summarise the report. It gives a good view of the report in regards to the contents.

2.6 Language Aspects

The language used in this report is English. This part is the part that lowers the grades of the report. I think the report has too many spelling and grammatical errors, even though I’m no English teacher. The errors makes the text somewhat troublesome to read in one sweep as I

as a reader has to go over some parts to try to figure out what it is the author means. The positive thing is that after some thought process it's not impossible to go on or to figure out what the text is trying to say. The good news is that it's fairly easy to correct. I recommend some more help from friends or colleges in reading true the text before the final version, I will give a list of errors at the end of this opposition report.

2.7 References and Sources

All references is used in the report except the authors own c-level dissertation that is never referenced to although it is mentioned in the preface. I miss some references where the report presents facts and numbers, such references (if the exist) will give the information a more scientific side and make them undisputable.

2.8 General Comments on the Project

It's hard to make any comments about the flow of the report as the small errors interrupted the continuous reading. But I have no changes to recommend to the disposition of the project.

And on a general note I only have one question, and that is about the authors hope for a second coming of 2D platform games, do tou belive it will come?

3 Chapter by Chapter Evaluation of the Dissertation

3.1 Chapter 1

1. What exactly is a platform game? Maybe a short description of what it is a little earlier then chapter 3.4.1.

1.4.1. What are old games? Do old games include all 2D games or just the 2D games from the developments beginning?

3.2 Chapter 2

2.1. You use they a lot, instead of using the actual word you are referring to. I don't know the word in English but in Swedish it is called "syftnings fel".

- 2.5.3. I'm missing some references to these values.
- 2.7.4. Footnote 4. Reference.
- 2.8.4. Difficult sentence, long sentence. Row 16 – 18.
- 2.9. References and a value to compare to.

3.3 Chapter 3

3.1.2. Here you use the term “beginning of time”. That’s a long time ago... You use it in 3.2 to.

3.1.2. References to these values.

3.2. What game is most famous? Do you mean 2D platform game or 2D game? Pac-man vs. Super Mario Bros.

3.4. Reference to witch figure? Table 3.1 or?

3.4. Common and uncommon.

3.4.12. Sounds as if players who play puzzle games never ever play anything other than just these games. Is that what you mean or?

3.5.1. The problem with 640k? Maybe the footnote should be on page 56 and not 57.

3.4 Chapter 4

4.2.3. p 70. row 2-4. Difficult sentence.

4.3. Fuzzy sets, you sometimes mention different articles in the text, I think you should try to find references to the articles you use.

4.3.1. p 72. The first part is kind of fuzzy. Difficult to understand. I almost got a headache from trying.

And also on p 72 your AI will attempt to do nothing, witch I'm not sure he will do, won't he continue to fight? Or I'm I wrong?

3.5 Chapter 5

5.1. You write that in all old 2d games the enemies always saw the player, is that really so? Do you mean in 2D platform games? Or in all old games?

5.2. Figure 5.1 isn't really much of a figure, could it be a little bigger?

5.2.2. You say that free sight id done from the eyes from both the enemy and the player. Is it done from the player to? Why?

3.6 Chapter 6

6.3.3. Difficult to understand what you mean here. Maybe the sentence should be rewritten.

6.3.4. Is it possibly to be a little more precise then “many checks”? The more exact you are to more scientific it sounds.

Check the title on 6.4.1.

Close to figure 6.8 on page 102 – 103 you describe the last check if a jump is possibly to do. You write and I quote “If there had been no collision with the checks in Figure 6.8 the jump might be successful and it might fail.”.

6.5.1. p 106. What is the “running through walls problem”? If you could be so kind to give a short explanation, you use the term and makes a reference but you I don’t know what it is.

3.7 Chapter 7

7.5. I like the fact that you seem to have found something that is usable for your work in a different field and that hasn’t been mentioned in any books you have read.

3.8 Chapter 8

8.1. Do you think that 2D platform games wil come strong in the future? Do you se a future for your work in the mobile platforms? Is it a goal?

3.9 Chapter 9 and 10

No comments, everything looks fine

4 Final Comments

So my final word are congratulations to a very interesting dissertation and a well done project. With a few more through this opposition could have been very easy for me to do. Now it gave me a little more work.

Correction Suggestions

nr	chapter	page	row	words	correction
1	abstract	v	9	that were never	that never were
2	preface	ix	3	this this	this
3			18	around. there	. There
4		x	7	put it	put it in
5	1.0	1	3	games computer	computer games
6	1.4.2	4	6	doing a,	doing, a
7	1.5	4	23		difficult sentence techniques as
8		5	5	techniques ass possible	possible
9			9	they are control	they control
10			10	moore	more
11	1.6	6	7	Chapter ??	Chapter 10
12	2.0	9	4	computers acting like	computers act like
13	2.1	10	7	when it do the	when it does the
14			17	of agent also be	of agent can also be
15	2.2	11	17	There, however, are very bad result in very long time	There are however
16			18		
17	2.3	12	2	depictions	decitions
18	2.5.3	17	6	easer it imitate	easer to imitate
19	2.6		17	Approacf[6]	Approach
20	2.6.1	18	1	mummer of	sommer of
21	2.6.3	19	9	expression pissed	expression "pissed"
22	2.8.2	25	1	related the fact	related to the fact
23	2.8.3	25	17	This pixels	These pixels
24			17	will from	will form
25	2.8.4	26	14		" is missing
26		28	1	points the object	points in the object
27			6	is left knowing	is left is knowing
28	2.9	29	2	per sceond	per second
29	3.0	31	13	games played	games is played
30			14	Next is follows	Next follows
31	3.1	32	7	to to	to
32	3.1.2	33	23	consoles are much	consoles much
33			27	friendlier	more friendly
34	3.2	35	14	or it drawn	or is drawn
35	3.3	38	14	input/otupt	input/output
36		40	14	directly picture	directly on the picture
37		42	5	also so	also
38			13	term used	term used in

39	3.4	43	9	the	??
40	3.4.2	44	6	different gams	games
41			20	forwards backward	??
42	3.4.3	46	2	the order an path is takes	??
43		47	11	it still the	it still is the
44	3.4.5	51	6	contain of levels	contain levels
45	3.4.7	52	11	view in not	view in is not
46	3.4.8	53	5	feeling of a really	feeling of really
47	3.4.9	53	23	become sub	become a sub
48	3.4.12	55	19	is not not finish	is not to finish
49	3.5.1	56	14	them self	themselves
50	3.6	58	10	done And in	done and in
51			16	in order load	in order to load
52		60	1	an tools provided	??
53	3.7	60	9	anybody	anyone
54	4.1	62	6	AI agent one	AI agent
55	4.2.1	63	5	contain of two	contain two
56		64	7	is applies	is applied
57			8	that properties a subject have.	??
58	4.2.2	66	22	an artificial world animals	??
59		67	15	enough when that	??
60		68	15	the ghost changed	the ghost change
61			17	machines ate old	??
62	4.3	71	8	the seta are	the sets are
63			11	was a	was
64			15	is is	it is
65			16	at one but	at once but
66			16	is is just	it is just as
67	4.4.1	75	15	to know how exactly how	??
68			20	distance of between	distance between
69	4.4.2	76	3	used be the	??
70			5	respectably, in [4].	??
71	4.5	78	11	cursed then	cursed when
72	5.2.1	83	6	Then the player	When the player
73			8	it	syftar på?
74	5.3	89	23	lines that can	lines can
75		90	3	very long sentence	try to break it up
76	5.3.1	91	15	between he frame	between the frames
77	6.3.1	98	7	down it continue	??
78	6.3.4	99	14	there i a hole	there is a hole
79	6.4.1	100	16	is is	is
80	6.5.1	105	3	look when the	look, the
81			3	predict that it	predict if it
82		106	12	it actinally	it actually
83			13	better, makes	better, it makes
84		107	3	been predicted	been performed
85	6.5.3	109	2	is	it is
86	6.6	110	13	is programmed to it	it is programmed to do
87		111	2	then a new	then new
88	6.7	112	4	they do no	they do not
89	7.2	114	10	and what of	and witch of
90	7.2.1	114	15	the sentence on row 15-17	??
91	7.4	117	10	of the nonnected nodes	of the connected nodes
92			18	O(N) because because	O(N) because

93		118	15	the sentence on row 15-16	??
94	8.0	125	3	evaluation the	evaluation of the
95	8.1	126	3	works and is uses	works and it uses
96	8.2	126	19	just to make just make	just to make
97	8.2.3	128	11	cost of	cost of memory
98	8.3.1	129	19	test runed	test run
99	9.2.1	135	9	today's prosecutors	today's processors