Important information about referencing and the assignment is also found in the lecture slides

The assignment

Write a literature review on a topic of your own choice (suggestions follow). The work should be done individually.

The review should contain at least 20 references, and be at most 3 pages long (including references). It should contain a ~1 page overview in which you refer to the papers and briefly explain why they are important (Ask yourself the question: why did you include *these* papers in the review?)

Also answer the following questions in your review: Who appear to be the important players in the field, what are the hot topics in the field and is your chosen field an active field? Give arguments for these conclusions.

Refer with name and year. Use the style specified below (a slightly more detailed version of APA 6th). It is recommended to use a reference management tool. Make sure that you include all detail. Don't just trust google to give you everything at once!

Include (at least) books, journal articles and book sections in your review.

Note that a literature review is *not* an introduction to the topic. It should be a guide for a reader who is already somewhat familiar with the basics of the topic on *what* to read and *why*. Russell and Norvig's (2003) introduction to artificial intelligence contains (very brief) examples at the end of most chapters.

Deuadline

November 3, midnight

For every day late, one point will be deducted.

Hand it in as pdf by email to bart@ai.vub.ac.be, putting MWO1 in the subject. Put your name in the filename (e.g. johnSMITHMWO1.pdf) and don't forget to put your name and student number in your assignment.

This is a capital O, not a zero!

Reference

Russell, Stuart & Norvig, Peter (2003) *Artificial Intelligence: A Modern Approach (second edition)*, London: Pearson Education Ltd.

Assignment 1 – literature review

Suggested topics

Choose a topic on which you would like to write your thesis. This saves work and makes the exercise more interesting.

The MSc thesis suggestions of the AI-lab (ai.vub.ac.be/thesis)

Deep learning and bioinformatics : improving predictions of beta-sheet topologies
Searching the sequence space of naturally occuring protein domains
HIV treatment in an individual-based model
Modeling the undiagnosed HIV epidemic
BCI using Hierarchical Temporal Memory(HTM) or Deep Learning(DL)
Grey Box Models for Pathogenic Classification of Genomic Variants
Inferring player behavior from behavioral experiments
Adaptive Heuristics
Population based Reinforcement Learning
Joining direct and indirect reciprocity
Statistical Analysis and Modeling of Robot Data for Category Formation
Learning the building blocks of speech
Measuring structure of speech and animal signals
Multi-agent learning for networks
Bitcoin-inspired adaptive virtual currency for Smart Grids
Relationship between lyrics & melody throughout the ages
Music & Language (representation)
Evolution of Music
Measures for the similarity of music
Symbolic Music Classification
Generating music in the style of a composer
Data mining of patterns in signals recorded from a bee hive
Counting bees on video recordings
Algorithm Design using Reinforcement Learning
Deep Reinforcement Learning
Learning feature hierarchies for Reinforcement Learning
Multimodal Reinforcement Learning
Probabilistic Modeling of Motion Data
Personalized Products Emerging from Tailored User Adapting Logic
Bi-level Multi-Armed Bandits
Bandit games
Multi-armed bandits for auctions in electrical energy markets
Optimization in realistic and distributed markets makers
Multi-armed bandit algorithms against credit card fraud

Or, on:
        https://aaai.org/Conferences/AAAI-18/aaai18keywords/

you can find a list of keywords/topics of the AAAI (Association for the Advancement of Artificial Intelligence) conference. These topics are too general for this exercise, so choose a specialization within each of these topics.
For example: Multiagent systems – ant systems, Robotics – robot navigation, Evolutionary computation – multi-objective GA's
For inspiration, you can also look at a call for papers of a conference on your favorite topic.

Assignment 1 – literature review

Style Examples

Journal article
de Boer, B. (2009). Acoustic analysis of primate air sacs and their effect on vocalization. *Journal of the Acoustical Society of America, 126*(6), 3329–3343. doi: 10.1121/1.3257544

Book chapter
de Boer, B. (2009). Why women speak better than men (and its significance for evolution). In R. Botha & C. Knight (Eds.), *The prehistory of language* (pp. 255–265). Oxford: Oxford University Press.

Book
de Boer, B. (2001). *The origins of vowel systems*. Oxford: Oxford University Press.

Conference paper
Kootstra, Gert, Nederveen, Arco & de Boer, Bart (2008) Paying Attention to Symmetry. In: M. Everingham, C. J. Needham and R. Fraile (Eds.) *Proceedings of the British Machine Vision Conference (BMVC2008)*, September 1–4, 2008, Leeds, UK, pp. 1115–1125

Website
de Boer, B. (2013) *Bart de Boer's publications*, [web site] http://uvafon.hum.uva.nl/bart/publications.html, retrieved on September 17,2013

Software
Boersma, P. & Weenink, D. (2012) *PRAAT, doing phonetics by computer* [computer program] version 5.3.16 http://www.praat.org, retrieved on May 23 2012

If there are more than 8 authors, you can mention the first 8 authors and use et al. in your bibliography.

Checklist
- Do you have the required number of references (>20)?
- Did you answer the questions stated in the assignment?
- Are there references to all different types of sources?
- Are the references of sufficient quality? A random list of Google scholar hits is not acceptable.
- Are all the references complete? Pay special attention to page numbers and editors of conference proceedings!
- Are the references formatted consistently? Be careful with automatically generated references!
- Is the text an introduction to the literature (rather than just an introduction to the subject)?