Notes on Writing a Research Paper

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Both the proposal and the final report can be written in either Spanish or English.

Project proposals should be at least 1 page long and should be as specific as possible.

Due dates:
- Project proposal - 25th of April
- Final report - 14th of June
Regular papers should be no longer than 15 pages.

Implementation write-ups will probably be shorter (remember: we aren’t interested in seeing all the code), but again the limit is 15 pages.

(Students submitting implementations will need to give a 15 minute demo.)

Saying what you would like to say in a limited space can be a challenge.
In addition to the exercise of conducting a ‘mini’ research project we also want you to have the experience of preparing a technical report of the kind that could be submitted to an academic conference.

Your final paper should follow the guidelines and style for multi-author volumes in LNCS (Lecture Notes in Computer Science Series, Springer).

You can download the style for latex, word, framemaker, ... from:

http://www.springer.com/computer/lncs?SGWID=0-164-7-72376-0
Lecture Notes in Computer Science: Authors’ Instructions for the Preparation of Camera-Ready Contributions to LNCS/LNAI/LNBI Proceedings

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Abstract. The abstract should summarize the contents of the paper and should contain at least 70 and at most 150 words. It should be written using the abstract environment.

Key words: We would like to encourage you to list your keywords within the abstract section.

1 Introduction

You are strongly encouraged to use \LaTeX\ for the preparation of your camera-ready manuscript together with the corresponding Springer class file \texttt{lnacs.cls}. Only if you use \LaTeX\ can hyperlinks be generated in the online version of your manuscript.

The \LaTeX\ source of this instruction file for \LaTeX\ users may be used as a template. This is located in the “authors” subdirectory in \texttt{ftp://ftp.springer.de/pub/tex/latex/lnacs/latex2e/instruct/} and entitled \texttt{typeinfo.tex}. There is a separate package for Word users. Kindly send the final and checked source and PDF files of your paper to the Contact Volume Editor. This is usually one of the organizers of the conference. You should make sure that the \LaTeX\ and the PDF files are identical and correct and that only one version of your paper is sent. It is not possible to update files at a later stage. Please note that we do not need the printed paper.
Fig. 1. One kernel at $x_s$ (*dotted kernel*) or two kernels at $x_i$ and $x_j$ (*left and right*) lead to the same summed estimate at $x_s$. This shows a figure consisting of different types of lines. Elements of the figure described in the caption should be set in italics, in parentheses, as shown in this sample caption.
2.5 Citations

For citations in the text please use square brackets and consecutive numbers: [1], [2], [4] – provided automatically by \cite \bibitem mechanism.

References

This is very important!

Any time that you state facts, use figures, describe, or make reference to work from other sources you must provide the appropriate citation.

The exception to this rule - common knowledge.

For example:

Barack Obama was elected President of the United States in November of 2008.
The importance of using citations

Why is correctly using citations important?

- To clarify your contribution
- To clearly distinguish (and recognize the source) of work by others
- To add weight to your arguments
- To limit blame (e.g., errors in data taken from a credible source)
- Not doing so (plagiarism) is considered to be a violation of ethical standards, and can result in legal problems as well.
When directly quoting text of less than 3 lines (4 lines text - 3 of verse (MLA - Modern Language Association), 40 words (APA - American Psychological Association), . . . ) from another source you should include it in “ . . . ” and provide a citation.

As prototypical of distributed systems, agents and environment are closely related. One of the most cited definition of agents, by Patti Maes, says: “autonomous agents are computational systems that inhabit some complex dynamic environment, sense and act autonomously in this environment, and by doing so realize a set of goals or tasks for which they are designed” [15].

(Example from A Landscape of Agent Systems for the Real World by Dignum and Dignum.)
Citations - the details

Longer quotes should be indented and also include the citation.

(Quotation marks are not usually used.)

1 Introduction

Over the last decade, agents and multi-agent systems have moved from a niche area of artificial intelligence to become mainstream concepts in generic computing technology. However, even though the abstract notions of agency and multi-agency are subscribed by all parties, there is little consensus and research towards a formal, ontological and methodological understanding of these concepts. As Luck and d’Inverno state [14]:

“The richness of the agent metaphor that leads to such different uses of the term is both a strength and a weakness. Its strength lies in the fact that it can be applied in very many different ways in many situations for different purposes. The weakness, however, is that the term agent is now used so frequently that there is no commonly accepted notion of what it is that constitutes an agent.”

(Example from A Landscape of Agent Systems for the Real World by Dignum and Dignum.)
You need to explicitly mark any changes you make to directly quoted text.

You should mark omitted text with . . . .

Added text should be enclosed in brackets, []. 
Citations should also be given when restating others ideas in your own words.

2 Principles of Agency

Many of the challenges associated with agent solutions to complex problems, refer to the distribution of tasks and the organization of the agents in a more or less known and favorable environment. Sycara has described those challenges as the decomposition of problems into individual tasks or goals for the agents; deciding on interoperability and communication options for agents; coherence of action and avoidance of conflicts and harmful or useless interaction; and individual possibilities for representation and reasoning about actions, plans and knowledge of others [21].

(Example from A Landscape of Agent Systems for the Real World by Dignum and Dignum.)