

EDITORIAL: COMMON MISTAKES IN WRITING A SCIENTIFIC PAPER

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1. INTRODUCTION

As editors of Studia UBB Informatica we have noticed that many papers contains some frequent errors. The best way to change this situation, to improve the quality of Studia papers, is to underline these frequent errors. And also, to offer a guide for writing papers for the Studia UBB Informatica journal, which we have done. This guide may be found at [18].

We have noticed that authors tend to pay less attention on details they should take care of before sending the paper to the journal. We have identified at least four types of errors: linguistic errors, scientific content errors, paper style errors, LaTeX related errors.

We underline from the beginning that the rules from this guide are well known, and we cite their sources [1–22]. But we consider useful to have these rules in a single place, with our specific preferences, in a form we expect to be obeyed by authors publishing in the Studia UBB Informatica journal.

2. THE ANALYSIS OF SOME RECENT MANUSCRIPTS

Although the instructions for authors can be found on the Studia UBB Informatica web page, they are often not obeyed. We have analyzed 44 recent manuscripts, and we have centralized the frequent errors in Table 1.

One may notice that linguistic aspects are on the first place, which may be explained by the fact the authors are not English people. The scientific errors are also present with a large share. Lack of clarity, ambiguity, not enough rigor, often make the manuscripts unintelligible. Also, the wrong use of citations/references dominates the second category of errors. Many people do not give sufficient details on the references (volume, issue number, pages).

Although linguistic aspects are present in almost all papers, we consider the scientific errors more dangerous, difficult to eliminate. They differ from

2010 *Mathematics Subject Classification*. 97P99.

1998 *CR Categories and Descriptors*. K.7.0 [**Computing Milieux**]: The Computing Profession – *General*.

author to author; depend on their knowledge, intelligence, perseverance, and experience. They are unavoidably present in the authors first papers, and usually disappear in time.

	Errors	no	freq
A	Linguistic errors	38	86%
	long or wrong sentences or phrases	8	
	missing or unsuitable words	25	
	wrong grammar	21	
	ambiguous or unclear statements	22	
B	Scientific content errors	35	80%
	ambiguous statements	4	
	undefined concepts	10	
	unclear or incomplete reasoning	12	
	incomplete or missing presentation of known results	10	
	missing comparison with other works	7	
	unclear scientific contribution	8	
	missing references	5	
	wrong conclusion	5	
	unfinished paper	7	
C	Style errors	34	77%
	incomplete or nonstandard references	17	
	nonstandard abstract (long, unclear, ...)	7	
	missing keywords	6	
	missing citations	10	
	unsuitable title (too long, wrong choice)	5	
	non-standard/unsuitable paper structure	5	
D	Other types	26	59%
	missing punctuation	17	
	typing errors	5	
	missing letters inside words	8	
	uncited references	3	
	lack of or incomplete authors address	4	
	wrong format	3	
	LaTeX style and typesetting errors	21	
	TOTAL	44	100%

TABLE 1. The list of errors found in manuscripts

3. THE IMPORTANT TYPES OF RULES THAT MUST BE OBEYED BY AN AUTHOR

The structure of a paper should contain a title, an abstract, an introduction, the main part with the authors original contribution, a conclusion, references and some additional information. These sections must be present in all papers! [8, 18, 19].

The **Abstract** should present the basic results obtained by the author and presented in the paper. It must clearly and concisely present these results, in no more than 250 words. No other information about existing results must be written in the abstract, and no references are cited here.

The **Introduction** must state clearly the subject covered by the author and its relevance to the major topic of science. Also, existing results in the field (the state of the art), and their relations to the authors results should be presented, either here or in a separate background (**Related Work**) section [20]. These existing results must be cited and corresponding papers must figure as references.

The **Contribution** part must present clearly, completely, with sufficient detail and rigurocity, what has been done by the author. If there are more than one important results, each one may be presented in separate sections. All hypotheses, experiments, deductions, and results, and their interpretation must be described. The statements must be clear, long sentences must be avoided, and ambiguities eliminated. Figures and tables may be used for increasing understanding.

The **Conclusions** section exactly state the results, and must agree with what has been done in the paper. It should also discuss on the importance of the results and, possibly, present plans for future research.

The **References** part should contain all papers that was used by or influenced the author in writing that paper. All of them must be cited inside the paper refered by their numbers in the references list. References in the list must be arranged / ordered lexicographically.

A reference should contain all information needed to discover that paper; the journal or proceedings where it was published, the volume, number of issue, and pages inside. For clarity, an example of a reference - paper in a journal is [8], of an on-line paper [13], of a paper in a conference proceedings is [16], and of a book or monograph is [21].

The official style of Studia UBB Informatica has to be obeyed by all authors.

There is no space to give them here, therefore details about these style rules may be seen in a guide found on the Studia UBB Informatica web page [18].

4. L^AT_EX STYLE AND TYPESETTING ERRORS

There is a diverse array of L^AT_EX errors our authors make on a general basis. First and foremost, the papers should be (directly) written in L^AT_EX, and not in another WISYWIG editor and converted afterwards. The use of such conversion features indicate the lack of L^AT_EX knowledge of authors and their choice to let the redaction be concerned with the aspect issues of the paper. Not only that this indicates lack of respect, this is as well an unacceptable behavior.

The Studia UBB Informatica editors have prepared a simple example file to be used by the authors. Not all of them use this model. We have received L^AT_EX papers using other style files or, even, using the standard L^AT_EX files. The example L^AT_EX file and the Studia style file are not there for our fun, but as a rule to be obeyed by authors.

A frequent L^AT_EX error has been the improper use of references and citations. Both should be done using L^AT_EX bibliographical features. Instead, quite a lot of papers use simple lists for references and square brackets for citations. In case of need please read a good L^AT_EX documentation, manual or book [5].

Very frequent L^AT_EX errors are related to text justification, fonts and sizes. The paper title is sometimes very long. The same stands with authors name. The authors should use L^AT_EX syntax to produce a short title and short names for papers heading, such that the headers do not overlap with the page numbers. Authors should make sure their text is correctly justified and that there are no words, equations, tables or figures left outside the text frame, on the right side of the page. As well, the official text size and fonts used by the journal are not to be replaced. We had a number of papers whose authors have changed the fonts to other fonts, more to their like. Again, this is an unacceptable behavior.

Authors should make all effort to integrate the figures with their captions in the L^AT_EX document, using the standard L^AT_EX commands. As well, all numberings should be generated automatically. The papers should have automatic numbering features for sections, figures, tables, equations, references. In case of need, as always, you are sent to your preferred L^AT_EX documentation, manual or book [5].

5. THE NEED TO IMPROVE OUR MANUSCRIPTS

From those 44 analyzed papers and reviews, 35 were returned to authors for eliminating the errors and improvement. Some of them could be easily sent to the journal without those errors! With a minor requirement: attention of the authors.

It would be very useful the authors will read those 21 suggestions made by Lertzmann [13]. One of them would be suitable to some of our authors: “Do not think to publish the first draft”.

Reread it yourself, and correct all misspellings and ambiguous expressions. Analyze each sentence to clarify its meaning. If there are long phrases rewrite them by shorter sentences. Since some of our authors are at their first papers, maybe PhD students, and almost all are Romanians, ask some other person to help reading your manuscript before submitting it to the editor. S/he may be your supervisor, or a research team-mate, or just a friend. It is important, however, that the person helping you with cleaning an English paper to be not only an excellent English speaker, but an excellent professional in the scientific domain of the paper. Otherwise, the translator will do more damage than help, because the final responsibility for your manuscript stays with you, and not with your translator. Finally, just before sending the paper to the editor, read it again. Many authors [9, 10] suggest this possibility and with a little care on behalf of the authors, many errors will be discovered and corrected before the paper reaching the reviewers.

Another frequent error which can be easily eliminated with a little attention from the authors consists in obeying the Studia UBB Informatica style, and giving all the required information. We are reminding here the keywords and phrases, scientific AMS and ACM classification indices [1, 2], complete authors official postal addresses (not personal addresses), official email addresses (not Yahoo, GMail and so on), incomplete references, or missing citations should be given.

To help our future authors to improve their writing and to submit better manuscripts to our journal we have written a guide for them [18].

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