Technical Writing for Peer Review

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Comprehension and Style

- When discussing a term for the first time, describe its function before going into further details. For example:

  "We first introduce a concept of quantity of interest (QoI) (Leino et al. 2018) as one of the building blocks for attributions. QoI is represented as a continuous mapping from the input space to a scalar value or vector, which identifies the question an explanation tool aims to answer."

  In this case, the representation is noted before its purpose. Consider switching them around.

- Each paragraph should feature one main point and supporting sentences. As a drafting exercise, summarize each paragraph using a single simple sentence. If you cannot, consider breaking it apart.

  - The summary sentences should be mostly readable in that you can get a sense of the paper just by reading the summary sentences and nothing else. Related, please fill in the summary sentences as they help your proof-readers understand the purpose of each part of the paper and give proper feedback.

  - Say what needs to be said and nothing more. What needs to be said is what you summarize in the summary sentences.

- **Comma use**: use a comma in places where you pause reading. If there is no pause, there should be no comma.

- Drop any word which is not essential. Examples:
  - "We can observe that 2+2=4" can become "We observe that 2+2=4" can become "Note that 2+2=4" can sometimes become "2+2=4".
  - You do not need to mention *"In this paper we focus on ..."*. You can avoid *"In this paper"* overall and try to avoid "we focus on" or similar as well. *"In this paper we do X"* becomes *"We do X"* or when possible just *X*.
  - "In order to X" becomes "To X".

Writing for Peer Review

- Do not make opinion statements especially when referring to other papers. Also try not to make points about who was first to whatever lest a reviewer disagrees.

- Avoid adjectives especially when they indicate opinion. Example:

  While we believe that overfitting plays a major role in membership inference attacks, our investigation reports an interesting observation.

- Avoid over-emphasizing a single related work. You do not want your work to be rejected because someone believes X is not valid work and might if they feel like you are building upon it too centrally.

Figures

- Changing font sizes to fit more text is frowned upon. Avoid this if possible. It is ok for captions to be long. Shrinking table content text may be acceptable. This is tricky for figures. If you are using matplotlib, you can use the following approach to unify font sizes between matplotlib and latex. First, in matplotlib, specify figure size to be what its size in the paper will be and then **NOT** use the `scale` option in `includegraphics`.

  You can check how much space a figure should take up with `\printlength{\linewidth}`, for example, here this returns linewidth=3.14162 in. Make your matplotlib figures this size:

  `\includegraphics[width=...]{...}`

  `\usepackage{printlen}\uselengthunit{in}`

Formalisms

- Distinguish definitions from equations. One option to do this is use a different symbol for definitions like $\overset{\mathrm{def}}{=}$ as defined:

```
\newcommand{\stacklabel}[1]{%
  \stackrel{\smash{%
    \scriptscriptstyle \mathrm{#1}}%
  }%
}
\newcommand{\defeq}{\stacklabel{def}=}
```

- Try to use standard notation whenever possible. If standard notation is not available in your field, try to find related notation from nearby formalisms. Whatever you do, stay consistent.

Citations

- Avoid referring to works as nouns and instead add a citation to a point being made. It is preferable to avoid the statement referring to the work or author and instead discuss what you wanted to mention about that work, adding a citation. For example:

  Original: *Shokri et al. introduced the concept of Shadow model, which are essentially replicates of the target model.*

  Better: *The shadow models attack constructs shadow models to replicate the target model (Shokri et al.).*

- Use citation capabilities in latex. Do not manage the bibliography yourself. The `natbib` package features three citation commands. `cite` as in "(Leino et al. 2018)", `citet` as in "Leino et al. (2018)", and `citep` as in "(Leino et al. 2018)".

- Citations do not excuse plagiarism. If you are copying text, it needs to be quoted. Technical writing rarely requires quotation so use sparingly. Guidelines regarding quotation and plagiarism are available: `https://writing.wisc.edu/handbook/assignments/quotingsources/`. Note that you also need to quote yourself if copying text from another work. Again, this should be rare. Also note difficulties in this regard in the Anonymity section.

- Make sure the same works are not cited as multiple items in the bibliography. For works available in preprint (arXiv, tech-report, etc) and peer-reviewed venue simultaneously, include only the peer-reviewed version in the bibliography.

Anonymity

- Your own works need to be referred to in third party. Links that may de-anonymize you (software, artifacts, etc), need to be removed or if needed for peer-review, anonymized.

Experiments and Artifacts

- Include enough information to replicate an experiment or at least run an experiment demonstrating the same point. This means that not all details need to be presented but parameters being investigated do. Options that could have an impact on the conclusions made need to be included as well. It is often difficult to determine these so software artifacts with exact experimental setups are preferable.

- If you include benchmarking results, also include information necessary to replicate them such as the hardware involved.

References

K. Leino, S. Sen, A. Datta, M. Fredrikson, and L. Li. Influence-directed explanations for deep convolutional networks. In *2018 IEEE International Test Conference (ITC)*, pages 1–8. IEEE, 2018.