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REVIEW ARTICLE

How to Write and Format an Article for *Ledger*

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Abstract. This manuscript provides guidelines for authors interested in submitting original research articles, or review articles, to *Ledger*. It is formatted based on the stylistic requirements of the journal, and thus also serves as a useful example to which prospective authors can refer. It reviews the syntax and semantics of common cryptocurrency terms, and advises authors to adopt this nomenclature when preparing their own submissions. The structural outline that an article should take, and the scholarly tone with which it should be written, are also discussed. Fonts, paragraph styles, margins, and other formatting details are described, along with the journal's requirements for figures, mathematical equations, and source code excerpts. As the editors at *Ledger* work as volunteers, and as the journal does not employ typesetting staff, it is important that authors endeavor to adhere to these guidelines to reduce the labor of processing manuscripts.

KEY WORDS

1. Cryptocurrency nomenclature. 2. Article structure. 3. Format and style. 4. Rigor.

1. Introduction

Cryptocurrency studies sit at a unique intersection of fields: computer science, mathematics, economics, anthropology, and more. Bitcoin, its most visible example, has been derided as "the Devil's way of teaching geeks economics,"[1] yet this new technology compels serious study: the economist may find herself researching elliptic curves, the lawyer understanding entropy with the precision of a physicist, and the anthropology professor deciphering the vocabulary of a programmer. Indeed, cryptocurrencies encourage a fundamental curiosity in all those who begin to comprehend their potential ramifications on our future world.

Articles submitted to *Ledger* should appeal to this diverse audience and should respect the interdisciplinary nature of cryptocurrency. Borrowing from the original mission statement from the journal *Nature*[2] (1869), articles should, firstly, "place before the general public the grand results" of cryptocurrency work and discovery, and "urge the claims of [this research] to a more general recognition in education and in daily life." Secondly, articles should aid members of the research community themselves, by giving timely and authoritative information of advances made in any branch of cryptocurrency research throughout the world, or, by compiling previous works into comprehensive and cohesive reviews.

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[*]1BWZe6XkGLcf6DWC3TFXiEtZmcyAoNq5BW

Articles submitted to *Ledger* should represent important steps forward in the knowledge base, should be presented efficiently, and should be written with the highest standards of rigor and validation from the most appropriate discipline. Articles should include introductions that make explicit the advancement described in the manuscript, and—with careful referencing—explain how this advancement fits within the existing body of knowledge. Ideas should be concisely stated once, repetition minimized, and proper grammar used. The tone of articles should be scholarly, avoiding superlatives, logical fallacies, and unsupported claims. The body of the paper should tell a cohesive and compelling story of the work completed and the important results obtained, with highly technical content relegated to an appendix. Illustrations should be clear and formatted in a visually pleasing manner that ties in with the look and feel of the journal's article templates. With that said, let us now agree on some nomenclature.

2. Cryptocurrency Syntax and Semantics

The word *Bitcoin* is capitalized when referring to the physical network, the protocol or the concept, but not when referring to units of the currency (*i.e.*, bitcoins). The smallest unit of currency is the *satoshi* and a bitcoin contains one hundred million of them; one hundred satoshis make a *bit* and one million bits make a bitcoin. We can abbreviate this as 1 Ƀ = 1,000,000 μɃ = 100,000,000 satoshis.

There are no *accounts* at the Bitcoin protocol level; instead, there are *addresses* to which bitcoins are sent and *private keys* that can unlock (spend) these coins. A *wallet* consists of one or more address/private-key pairs, grouped together for a common purpose. It can be *hot* or *cold* depending on whether its private keys reside online (hot) or offline (cold).

The ledger that records which coins reside at what addresses is known as Bitcoin's *blockchain* (not capitalized), or, when Bitcoin can be inferred, as the Blockchain (capitalized). Although blockchain is written as a single word, terms such as block size, block space, *etc*., are written as two words. *Proof-of-work* refers to the competition used to find the next *block solution* and thereby extend the Blockchain.

An *entity* is an individual, group, or thing with volition. Users, miners and hashers are entities. A *user* is someone or something that uses Bitcoin. A *miner* is an entity that participates in the proof-of-work competition and actively decides which transactions to include in a block. A *hasher* provides computational resources to a mining pool but does not participate in selecting transactions. A *node* is a computer system that verifies and relays valid transactions to other nodes, propagates block solutions, and stores a copy of the Blockchain; nodes are operated by entities such as miners and certain users.

The nomenclature described above holds to varying degrees for other cryptocurrencies. Authors should respect the accepted naming conventions for other cryptocurrencies, unless doing so negatively impacts the readability of their manuscript (*e.g.*, referring to the quantity of less well known currencies using generic terms such as "units" may be more appropriate.)

3. Article Structure

Ledger imposes certain structural requirements on submissions to promote logical flow and brevity within an article, and uniformity of style across articles. To adhere to these requirements, authors are referred to the following instructions:

Title—Provide a descriptive title that communicates what the paper is about. Titles exceeding three lines are strongly discouraged.

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Author names and affiliations—Following the article's title, list the names of all authors who contributed significantly to the research. Do not use titles (*e.g.,* Dr. or Ms.) or credentials (*e.g.*, Ph.D.) in this section. For each author, a footnote (no more than one line in length and in 8 pt. font) may be used to specify additional information. To format the footnote, use initials for the author's given names and write his last name in full; optionally list degrees held by the author, separated by a common; optionally list an email address in round brackets (do not use a comma before the opening bracket); the remainder of the line may include other information the author wishes to include about herself or himself. One of the authors must act as Corresponding Author and should be denoted with an additional footnote marker [*]. The Corresponding Author is strongly encouraged to sign the journal's final PDF version of the manuscript with a private key that corresponds to a Bitcoin address associated with his identity,[3] and to provide that Bitcoin address as the last line in the first page's footer. A link to the Corresponding Author's digital signature will be included on *Ledger*'s website beside the link to the PDF version of the article.

Abstract—Give a concise summary of the paper in a single paragraph of approximately 150 words (200 words max). The abstract should communicate both what the paper is about and the important results obtained. The abstract should contain neither references nor non-plain text elements such as equations or computer code.

Key words—List the key words a potential reader might use when searching for a paper similar to your own. A single line of key words is suggested, although up to two full lines are allowed. Since the journal is dedicated to Bitcoin and cryptocurrency research, these terms should be omitted from the list of key words.

Introduction—Using plain language, explain why your work is important, describe how it fits within the existing body of cryptocurrency knowledge, and then state in what way your work represents a new contribution. If your paper does not follow a conventional structure (see below), then the Introduction should end by describing what the following sections of the paper are about. The Introduction should contain approximately 500 to 750 words (1000 words max) and should not use sub headings.

Body sections—Any number of body sections may follow the Introduction. For hypothesis-driven research, we suggest the conventional structure of Methods, Results, Discussion. For technology-advancement papers, provide concise descriptive titles for each body section. The body sections should logically flow together such that the paper tells a cohesive and compelling story of the research that was undertaken and the results that were obtained. Sub headings should be used sparingly but are appropriate where a sequence of more or less unrelated material (particularly in a long Methods section) may flow better.

Conclusion—For papers that do not follow a conventional structure, synthesize and summarize the main results of the paper. This section is also an appropriate place to clarify the limitations of the work, as well as to describe new research questions that arose. The conclusion section for papers that follow a conventional structure (*i.e.*, Methods, Results, Discussion) may be very short because the synthesis of the results usually occurs in the Discussion section. The Conclusion and the Introduction should be the two sections of your paper most accessible to an interdisciplinary readership.

Appendixes—Relegate to an appendix material that would distract from the flow of the article, but that is required to rigorously prove claims made or concepts introduced in the paper's body.

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Acknowledgement—Acknowledge people who helped carry out the research or prepare the manuscript but whose contribution did not warrant authorship. List funders and other sources of financial support at the end of this section.

Author Contributions—State the contribution made by each author. Refer to authors using their initials, for example, "AM developed the code to perform the simulation (65%) and CEW analyzed the results (35%). They both contributed equally to manuscript preparation."

Conflict of Interest—State any potential conflict of interest here. Although assessing whether a conflict of interest exists can be difficult, as a guideline consider whether it would be embarrassing should the potential conflict become publicly known. This section may be omitted if no conflict of interest exists.

Notes and References—The final section of the manuscript lists the notes and references denoted throughout the paper. Notes provide proof of facts stated in the article, or additional clarifications on points made in the manuscript that may be of interest to only a subset of readers. References list cited material and are covered in detail in Section 7 of this paper. Authors may refer to information in a cryptocurrency's blockchain directly (*e.g.*, by transaction hash).

Word count—Original research papers should target a length of 3,000 words (excluding abstract, captions, appendixes, notes and references), although up to 4,000 words is permitted. If you cannot communicate your work within these limits, it is likely that the main ideas require further refinement or that the paper should be broken down into two or more shorter papers.

Beyond the requirements described above, authors should assume the reader is familiar with the Bitcoin white paper and the concepts presented within it (*e.g.*, digital signatures, Merkle trees, hash functions, *etc*.).[4]

4. Format, Style and Rigor

Ledger's article format was inspired by the stylistic decisions made by Satoshi Nakamoto when preparing the Bitcoin white paper. Articles in *Ledger*, however, include figure captions, tabular data, and use slightly different page margins, line spacing and indentations. The most striking formatting difference is the larger font size used for the article title, which, along with the journal's logo and ISSN/DOI details, serve to create a polished look in our opinion.

Fonts and paragraph styles—The fonts and paragraph styles used for articles in *Ledger* are described in Table 1. Authors are encouraged to work from the journal's Microsoft Word or LaTeX templates so that formatting details are taken care of automatically. Authors, at their discretion, may make small adjustments to the font sizes and spacing when doing so improves the readability and look of the content. For example, the words "Line," "Above," and "Below" in Table 1 are 8 pt. (rather than 10 pt.), which allowed the table to neatly fit within the page margins.

Table 1. Fonts and Paragraph Styles.

Style name	Font	Size (pt.)	Paragraph spacing (pt.)			Bold	Italic	All caps	Center-ed
			Line	Above	Below				
Article title	Times	24	28	0	0	☐	☐	☐	■
Author names	Times	13	13	14	20	☐	☐	☐	■

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Author affiliations	Times	8	9	0	1	☐	☐	☐	■
Abstract	Times	10	13	0	0	☐	☐	☐	☐
Article type / "Key words" heading	Times	10	13	9	6	☐[a]	☐	■	■
Key words	Times	10	13	0	0	☐	☐	☐	■
Section headings	Times	13	15	15	7	■	☐	☐	☐
Sub headings[b]	Times	11.5	13.5	0	0	☐	■	☐	☐
Body text	Times	11.5	13.5	0	0	☐	☐	☐	☐
Figure captions	Times	10	13	-	20	☐	☐	☐	☐[c]
Table captions	Times	10	13	15	6	☐	☐	☐	■
Text in tables	Times	10	11.5	1	1	☐	☐	☐	-
Table headings	Times	10	13	4	4	☐	☐	☐	■
Text in figures	Arial	8	-	-	-	☐	☐	☐	-
References	Times	10	12	0	6	☐	☐	☐	☐
Footnotes in tables	Times	8	11	0	3	☐	☐	☐	☐
Code	Courier New	10	11	0	0	☐	☐	☐	☐
Display equations	Times or Cambria Math	11.5	-	9	7	☐	☐	☐	■

[a] The Abstract section begins with the word "Abstract" in bold face and followed by a period. The abstract text immediately follows (no line break) and has regular font weight.

[b] Subsections are allowed and can be numbered or unnumbered. In either case, the heading is written in-line with the body text and in italics followed by an em dash.

[c] Figure captions less than one line in length should be centered while multi-line captions should be justified.

Tabs, indentation and margins—Ledger uses 0.6 cm tabs. Paragraphs are indented 0.6 cm except for the first paragraph under a new section heading. The abstract is indented 1.2 cm on either sides, as are figure and table captions. The first line of a source code excerpt is indented 1.2 cm with further indentations at multiples of 0.6 cm.

Ledger uses right and left page margins of 3.1 cm, and top and bottom margins of 2.4 cm and 1.0 cm, respectively. Headers and footers are, respectively, 1.5 cm and 1.0 cm from the edge. The bottom footer overlaps with the bottom page margin, and has the effect of pushing the effective bottom margin up on each page after the first, thereby placing the author affiliations in a more appropriate location closer to the bottom of the first page.

Numbered and bulleted lists—Authors are encouraged to use lists to improve the readability of information best presented in point form. The requirements are as follows:

(1) The line marker is indented 0.6 cm.
(2) The list item is further indented 0.6 cm (1.2 cm in total).
(3) If the item is longer than a single line, the text on wrapping lines must begin at an indentation of 1.2 cm, and the line spacing must be consistent with the body text.
(4) If the list is ordinal, the numbers (or letters) must be surrounded by round brackets.
(5) For non-ordinal lists, use small round dots as markers.

Nested lists are permissible but should be used sparingly.

Numbers and units—Sometimes numbers should be written as words and other times using Arabic numerals. For example, consider the phrase "Bitcoin's target block time is ten minutes," compared to the phrase "the average block time during the last difficulty adjustment period was 576.3 s." In general, numbers followed by an abbreviated unit (*e.g.*, 576.3 s) should always be written with Arabic numerals. Use SI (MKS) units unless doing so would

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be confusing or unusual (*e.g.,* "network difficulty adjusts approximately every two weeks" [do not write "every 1.21×10^6 s"]). Leave a space between the number and the unit except for angles measured in degrees (*e.g.*, 30°), and temperatures specified in degrees Celsius (*e.g*, 715.2°C).

Dates and timelessness of published work—Write dates in the sequence day, month, year (no commas) and write the month out in full (*e.g.*, 11 January 2016).

As *Ledger* publishes archival-quality manuscripts, statements should be true whether the article is read the day the article is published or a decade later. For example, when referring to things that may be true at the time of writing, but may not true in the future, qualify those facts with "at the time of writing" (*e.g.*, "the price of a bitcoin was $230 USD at the time of writing").

Footnotes—Footnotes are not permitted, except to indicate the Corresponding Author and each author's affiliation. The asterisk [*] should be used for the Corresponding Author, and the dagger [†], double dagger [‡], section mark [§] and pilcrow [¶] for the authors' affiliations. If more footnotes are required, use the following pattern: [*], [† , ‡ , § , ¶, †† , ‡‡ , §§ , ¶¶, ††† , …]. (Include parenthetical remarks that are necessary for understanding the paper or its limitations in the paper's body, and use endnotes for explanatory details expected to be of interest to only a subset of readers.)

Endnotes—Endnotes are denoted with a superscript Arabic numeral and ordered sequentially.

Abbreviations—Abbreviations used throughout the paper should be written in full the first time they occur, for example: simplified payment verification (SPV).

Technical terms—Terms used within the paper that are meant to have a specific technical meaning should be written in italics the first time they are presented and defined appropriately.

Hyphens and dashes—Avoid excessive hyphenation but note that there are certain situations where hyphens are necessary for semantic reasons. For example, a man-eating shark refers to a shark that eats humans while a man eating shark is a man who is eating shark. Use the em dash—with no whitespace—to denote a break in a sentence or to set off parenthetical statements.

Latin words—Latin words should be written in italics (for example, *a priori*). *I.e.* and *e.g.* are abbreviations for the Latin terms *id est*, and *exempli gratia*, which loosely translate as "that is" and "for example," and should likewise be written in italics.

Language—Articles must be written in English. Authors are free to choose from any commonly accepted spellings for a given word, provided each word is spelled consistently throughout the manuscript.

Tone and Voice—We advise authors to write their articles in "formal" to "relaxed formal" academic prose (similar to the Bitcoin white paper). While hard to pin down more precisely, in practice it means a few things: avoiding contractions, slang, and local dialects; avoiding entertaining but unnecessary commentary; and choosing objective and descriptive language over invective and rhetoric. It also means choosing description over value judgments—while a given finding may be "good" or "bad" (for Bitcoin or any individual entity), we are more concerned with specific effects. We also recommend the use of the active voice over the passive: "our team performed the analysis," rather than "an analysis was performed."

Rigor and Validation—Ledger articles will be held to a high standard of academic rigor, and are expected to provide validation for the ideas they present. Validation can take many forms; given the interdisciplinary nature of cryptocurrency research, articles will be evaluated

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by standards from the most appropriate fields. For example, articles with a formal science component (*e.g.*, game theory or cryptography) may have proofs and derivations reviewers can check for correctness; articles with a computer-system implementation may include performance benchmarks; measurement studies may include cross-validation or comparison with ground truth, and so on. The review process is intended to improve and ensure the quality of accepted papers. Since reviewer attention is a limited resource, submissions should be written to facilitate efficient review. For example, authors are encouraged to provide software artifacts or data sets to promote reproducibility, and simplifying assumptions in theoretical models should be clearly stated and justified.

5. Figures, Equations and Code

Figures—Figures relevant to *Ledger* can be loosely categorized as line art and photographs. In both cases, the figure and its caption should be self-contained—that is, a reader should be able to understand the figure just by viewing it and reading the caption (*e.g.*, the meaning of symbols used in figures should either be clear from the context or described in the figure's caption). Multipart figures should be denoted with lower case letters placed near the bottom of the image and surrounded by brackets: (a), (b), (c), *etc*.

Examples of line art include schematics, process diagrams, and plots. Line art should be free of irrelevant details and appropriately sized. As shown in Fig. 1, text labels should typically use 8 pt. Arial font but some variation is permissible for effect. Line fonts should be nominally 1 pt. in thickness, but thicker and thinner lines are encouraged if differentiation is needed. Both vector and raster images are acceptable, however care must be taken to ensure that raster images remain crisp: we suggest 600 DPI resolution and a lossless but compressed format such as GIF. Line art should be black and white with differentiation achieved by gray scaling. If further differentiation is needed, colors building from the journal's purple color scheme are encouraged.

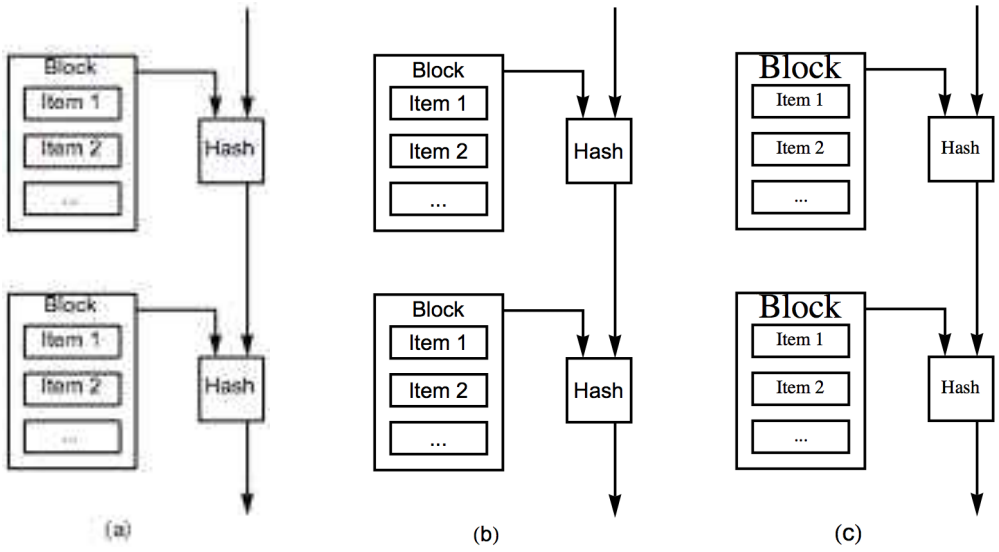

Fig. 1. Examples of (a) line art with insufficient resolution, (b) acceptable line art, and (c) line art with an unacceptable font and font sizes.

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Plots should be clearly labeled. Axes, frames and tick marks should be black using a ½ pt. line font. Gridlines (which are optional) should be gray and ¼ pt. in thickness. Functions and continuous data should be plotted using 1 pt. line fonts or heavier. Empirical data should usually be plotted along with an indication of the size of the measurement error.

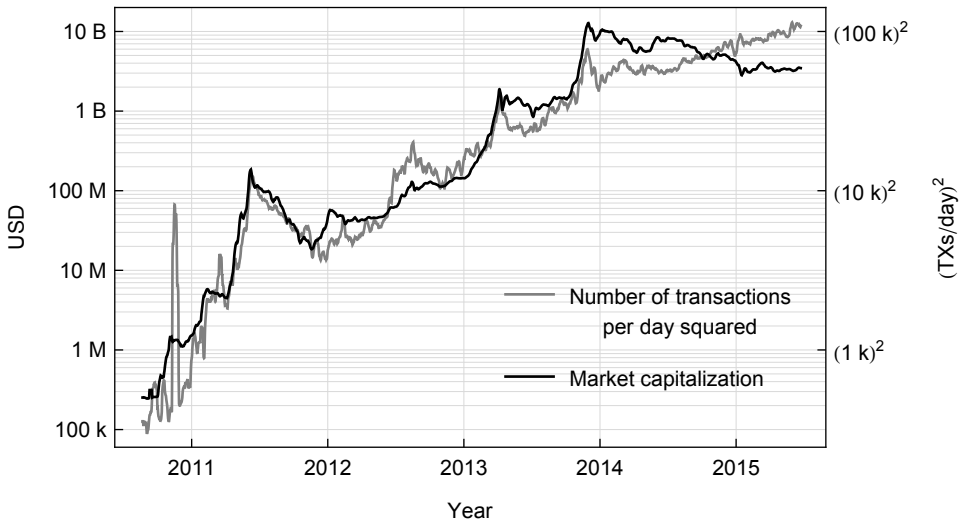

Fig. 2. This is an example of an acceptable plot. The axes are clearly labeled, 8 pt. Arial font is used, gridlines are faint (1/4 pt.), the plot frame is slightly thicker (1/2 pt. black) and the plotted data heavier still (1 pt.). In this example, gray scaling is used to differentiate between the two time series.

Photographs are defined to include both real and computer generated images, and should be displayed as small as possible without affecting readability. Images must be of high quality and of sufficient resolution (300 DPI JPEGs are preferred).

Fig. 3. Example of a photograph of acceptable quality and resolution.

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Mathematical equations—Expressions and equations form part of the manuscript's prose and should be punctuated accordingly. The font size should match the surrounding text. Variables should be written in italics while words and numbers within equations should not. The multiplication symbol should be used between numbers (*e.g.*, 3×10^{12}) but not between variables (*e.g.*, $\lambda = zq/p$). Equations should appear inline whenever possible; however, equations that are important, referenced in another place in the text, or complex should be centered and displayed separated from the surrounding text by 9 pts. of white space above and 7 pts. of white space below:

$$P_{\text{doublespend}} = 1 - \sum_{k=0}^{z} \frac{\lambda^k e^{-\lambda}}{k!} \left[1 - \left(q/p \right)^{z-k} \right]. \tag{1}$$

Only equations and expressions that are referenced later in the paper should be numbered; for example, Eq. (1) specifies the probability with which an attacker controlling a fraction *q* of the network hashing power can successfully double spend. Authors submitting in Microsoft Word must use the built-in equation editor or the MathType plug-in.

Code—Code segments can be displayed inline using 10 pt. Courier New (*e.g.*, `#define largerlimit 8000000`), or on display in the same font:

```
if(blocknumber > 115000)
   maxblocksize = largerlimit
```

For displayed code, the first line should be indented by 1.2 cm (twice the standard indent) with additional tabs at multiplies of 0.6 cm.

6. References

References serve the dual purposes of proper attribution of ideas and aiding other researchers. As such, we ask that authors follow the guidelines below when formatting references, making an effort to provide specific data in the following order.

- *Author names* should be listed surname first, followed by initials. For seven or more authors, please list the first author only, followed by *et al.* The list of authors should be followed by a full stop.
- *Titles* of individual articles, chapters, discussion threads, *etc*. should be in normal text and within quotation marks; titles of publications, books, websites, and online forums should be italicized and without quotation marks. All titles should be followed by a full stop.
- *Volume and issue numbers* should be provided for journal articles, should be in the format volume.issue, and should be in bold.
- *Publisher information* should be provided for books, and should be in the format City: Press (*i.e*. Pittsburgh: University of Pittsburgh Press).
- *Page numbers* should be provided where available, and should reflect the specificity of the content referred to, for example when referring to a complete article, please use the page range to indicate this (*i.e*. 10-27); when quoting or paraphrasing more directly, please cite the specific page being referenced (*i.e*. 14). Do not cite entire books.
- *Year* may be sufficient in most cases, but in journals or other websites where volume and issue numbers are lacking, more precise dates may be necessary for clarity.

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Names of months should be written out in full (*i.e*. 11 January 2016). Dates should be written in parentheses.

- *DOIs* should be provided where available. For online material where no DOI is available, stable links (*i.e*. "permalinks") are also acceptable.

Below we give examples for several common reference types.

Journal Articles

Surname, Initials. "Article Title." *Publication* **volume.issue** pages (year) doi:xxxxx

Wilmer, C. E., Rizun P. R. "How to Write and Format an Article for *Ledger*." *Ledger* **1.1** 1-11 (2015) doi:10.1037/rmh0000008

or, if more than seven authors:

Wilmer, C. E., *et al*. "How to Write and Format an Article for *Ledger*." *Ledger* **1.1** 1-11 (2015) doi:10.1037/rmh0000008

if no volume or issue numbers, please provide a more accurate date when possible:

Wilmer, C. E., Rizun, P. R. "How to Write and Format an Article for *Ledger*." *Ledger* (11 September 2015) doi:10.1037/rmh0000008

Books

Surname, Initials. *Book Title*. City: Press page(s) (date)

Wilmer, C. E. *Ledger: The Story of a Journal*. Pittsburgh: University of Pittsburgh Press 32-33 (2016).

Articles or Chapters in Edited Volumes

Surname, Initials. "Article Title." In Initials Surname (Ed.), *Book Title*. City: Press (date) pages.

Wilmer, C. E. "How to Write and Format an Article for Ledger." In *Ledger: The Story of a Journal*. Pittsburgh: University of Pittsburgh Press 21-27 (2016)

Websites and Online Discussions

Threaded discussion:

Surname, Initials. (handle). "Article Title." *Website Name* (accessed date) Permalink

Wilmer, C. E. (/u/ThrowawayLedgerAcct). "On the Future of Bitcoin." *Reddit* (accessed 11 January 2016) https://www.reddit.com/r/bitcoin/comments/3iao3i/on_the_future_of_bitcoin/

Comment in threaded discussion:

Surname, Initials (username). Comment in "Article Title." Website Name (accessed date) Permalink

Wilmer, C. E. (/u/ThrowawayLedgerAcct). Comment in "On the Future of Bitcoin." *Reddit* (accessed 11 January 2016) https://www.reddit.com/r/bitcoin/comments/3iao3i/on_the_future_of_bitcoin/cupd8o

Comment in IRC discussion:

Surname, Initials (username). Comment in "Conversation Title." *Channel Name* (accessed date) Permalink (mm:ss)

Wilmer, C. E. (throwawayledgeracct). Comment in "Transcript for #bitcoin-dev 2015/09/15." *bitcoin-dev* (accessed 11 January 2016) http://bitcoinstats.com/irc/bitcoin-dev/logs/2015/09/17 (09:05)

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E-mail list:

Surname, Initials. "E-mail Subject Line." *Mailing List Name* date sent (accessed date) Permalink

Wilmer, C. E. "Re: [Bitcoin-development] satoshi client priorities." *Bitcoin-development* 2015 September 15 (accessed 11 January 2016) http://sourceforge.net/p/bitcoin/mailman/message/27712005/

When information is missing

No Author. "Nature's mission statement." *Nature* (accessed 11 January 2016) http://www.nature.com/npg_/company_info/mission.html

Nakamoto, S. "Bitcoin: A Peer-to-Peer Electronic Cash System." No Publisher (2008) https://bitcoin.org/bitcoin.pdf

Pseudonymous (/u/ThrowawayLedgerAcct). "On the Future of Bitcoin." *Reddit* (accessed 11 January 2016) https://www.reddit.com/r/bitcoin/comments/3iao3i/on_the_future_of_bitcoin/

7. Conclusion

We explained how to write and format an article for the interdisciplinary readers of *Ledger*. The key points were as follows:

(1) Explain in plain language why your research is important and how it builds upon previous work.
(2) State ideas clearly once, avoid repetition, and use correct grammar; write in a "formal" to "relaxed formal" academic tone.
(3) Observe the syntax and semantics for common cryptocurrency terms as defined in Section 2.
(4) Structure your paper to tell a cohesive and compelling story of the work completed and the important results obtained; relegate highly technical sections that would distract from the article's flow to an appendix.
(5) Use *Ledger*'s Microsoft Word or LaTeX article templates to help adhere to the journal's formatting requirements.
(6) Take care to produce high-quality, clear figures; include descriptive self-contained captions.
(7) Format mathematical equations and source code excerpts as described in Section 5.
(8) Seek out the original sources of ideas; include nontraditional communication channels (*e.g.*, forum and blog posts) in your referencing.

We hope that this paper and our article templates make preparing submissions for *Ledger* easier.

Acknowledgement

The authors thank the staff at the University Library System of the University of Pittsburgh for their support and enthusiasm towards this journal project. *Ledger* is funded in part by a grant from CoinCenter.

Author Contributions

PRR wrote Sections 1-3, 5 and 7. AM, RFB and PRR wrote Section 4, and RFB and CEW wrote Section 6. CEW, RFB and AM provided review and suggestions on all sections.

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Conflict of Interest

The authors are founders of the journal *Ledger* and presently serve as editors.

Notes and References

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