

The Best Editor Is the Most Accurate Editor

Computer Text Editors Versus Human Editors

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Scholars have argued about whether computers or humans edit better, but regardless of each agreement or disagreement about particulars, the scholars agree that accuracy is the most important consideration when editing text. Computer editing tools may allow for a more efficient and accurate revision process when used by someone with editing training. Research has yet to be conducted concerning the range of flexibility and subjectivity of computer editing tools; until computers can become more flexible and subjective (if they can), human editors are needed to confirm that an author's intent and meaning, as well as their grammar, syntax, spelling, and punctuation, are accurate. Therefore, the research from various scholars synthesized in this literature review supports the necessity of editing training in conjunction with the appropriate use of computer editing tools.

With a plethora of writing software available, many people wonder why anyone would pay a human editor to edit their work. Some may even consider it unnecessary to know for themselves the mechanics behind the corrections given by spelling and grammar checkers, assuming that computers can catch more errors than humans. Suggestions given by computer editing tools are merely that—suggestions—and are not the be-all and end-all. Computers can be programmed with sets of rules and scenarios but can never truly know an author’s intended meaning. When a computer editing tool suggests a change, it may be technically right in some regard but may not be every time, thus requiring an organic brain rather than a programmed brain to give the final say.

One example of needing organic intuition is in style guides or house styles which may have guidelines that go against what a computer editing program has been set up to do. For example, some style guides, like BYU Broadcasting’s (BYUB), state that they do not use the Oxford comma (a comma included before the last item in a list and the conjunction preceding it). Editing documents for BYUB often yields the removal of the Oxford comma, which provokes a bold red line from the computer editing software, leaving a document with more red lines rather than less after a pass of editing and disrupting, rather than aiding, the editing process.

Usage errors, too, are an area where the computer editing software may or may not catch when the wrong word is used, meaning that there may be a lack of computer-generated red lines or other notation when there should be something there. Because it takes a human to understand the intent of style guides or correct word usage, some scholars believe that editing by hand is superior to editing with digital means, but the majority of scholars say that computer editing tools can be beneficial in the revision process of writing, especially when used by those who know the rules of editing. While reasons for disagreement vary, there are three main schools of thought in literature; all of them are contingent on the idea that accuracy is the most important thing. One thing scholars discuss is that editing tools are not inherently good or bad, but their effectiveness has a strong correlation with the amount of editing training the individual using the tools has. Scholars also contrast the quality of revision processes when a peer edits an author’s paper versus when the author solely uses

a computer text editor. More research should be done on how computer editing tools are improving or can be improved.

The Superiority of Editing by Hand

The capabilities of computer technology are impressive, but there are some things still better done manually, and whether editing is one of those things is up for debate; although fewer scholars agree that editing is better done manually, the argument has been made (albeit the most recent arguments for manual editing of those used in this article are from over thirty years ago and are less effective now). Hampden H. Smith (1988), who teaches in journalism and communications at Washington and Lee University, acknowledges that “some journalism educators . . . argue that pencil editing is pedagogically and vocationally superior to editing on a computer.” Smith explains that this superiority of pencil editing rests on the ideas that having a physical manuscript is easier to mark up and that students must have non-computer skills when they are job-searching in writing-based fields such as journalism (p. 45). Granted, Smith’s article was published in 1988, and both editing technology and career fields have changed since then. Rosemary Kowalski, a professor at the University of Michigan, published a research article in 1990 describing her findings that the biggest problems for students peer editing each other’s work on the computer was relying on being able to scroll, having the program work correctly, and trusting that the computer will function quickly. For the students that participated in the research, pen and paper were more familiar to them and therefore faster and more convenient (Kowalski, 1990, p. 37). Students in 2022 are more familiar with computers than students in 1990 were; however, the point still stands that editing on a computer means relying on that computer functioning as it should (having the latest updates installed for software to run properly, for example), regardless of how well a computer text editor performs.

In 2006, almost two decades after Smith’s and Kowalski’s articles were written, Robert Dale from the University of Edinburgh shares thoughts arguing this same concept: “Although computers have made it easy to put words on paper, so far they have provided very little help in ensuring that the result is high-quality, error-free text” (p. 59). Dale acknowledges that computers have made aspects of writing more efficient, but he

also recognizes that users need to edit their text manually even if they use the computer checkers.

Grammar checkers evoke another argument for the case of manual editing. A professor at Austin Peay University, David L. Major, tells us that grammar checking is helpful to a degree but not recommended for less experienced writers. As with the usage problems when it comes to spelling, correct grammar is highly contingent on context. There are many aspects of editing that, even with improving technology, cannot be encoded in a program. The straightforward, mechanical aspects (such as the spelling of a word) are a little more inclined to be something programmable, but something not so straightforward, like grammar, is less so. Certainly there are grammar rules that a computer system can follow, but anything complex is harder to have a computer accurately correct. Furthermore, not everything that needs editing comes down to what is correct or incorrect; things like punctuation and formatting are often up to a “house style” or “style guide” that values consistency, which is also difficult to program a computer to do (Dale, 1990, p. 59).

Perhaps we would think to disregard these arguments that editing by hand is superior because the research is dated by over twenty years, and in the world of technology, that is a long time. However, Major finds arguments both for editing physical copies and computer editing, and his papers were written more recently (2017). Concerning editing by hand, he says, “Working with a printed page not only eliminates the red, green, and blue underlines, which provide both distraction and complacency, but it also increases the readability of the text with improved resolution, reduced glare, and a comfortably positioned page” (Major, 2010, p. 165).

The Benefit of Computer Editing Tools

Although computer editing tools may be criticized, they do have their benefits. One such benefit is that when computer editing tools take care of the simple mistakes for an author (e.g., correcting the word *hte* to *the*, a common mistake of fast typing), authors can spend their time doing more complex revisions (Hunter, 1984, p. 14). Revising one’s own work, it seems, is where computer editing tools best come into play. Computer editing tools also mean “less manual labor” (Gatrell, 1991, p. 545). To compare using computer editing tools with using a dictionary,

psychologists Lauren Figueredo and Connie K. Varnhagen from the University of Alberta performed a study in which they found that all the student groups participating in their research “were able to correct more surface errors with the aid of the checkers than they were with the dictionary” (Figueredo & Varnhagen, 2006, p. 729). Computer checkers are especially helpful when authors are under a time constraint, which is often the case for students, employees, and others with deadlines. Students in another study, performed by Bridget Dalton (1991), expressed that they preferred using spell-check editing over peer-or self-editing, the main reason for that being “increased editing accuracy” (p. 123). Ellen Kanervo affirmed that accuracy is of utmost importance in her article “Electronic Editing can be Taught on Any Computer,” as did Michele McClellan, editor-in-chief of *The Oregonian*, in her article, “Accuracy Must be our Journalistic Grail.” These two journalists understand the importance of words and the impact they can have on readers—computer text editors can streamline the process of preparing an article. Not only will writing the article be more efficient, but it will be more accurate when computer text editors are used. Concerning computer text editors, Kanervo says, “To compete successfully in a tight job market, journalism majors need to be trained in electronic editing now even more than they need to learn the traditional copyediting skills” (p. 18).

The Importance of Being Trained in Editing

One of the most common errors is not a misspelled word but a misused word (e.g., using *effect* for *affect* or using *its* for *it’s*). These words are technically spelled correctly, meaning that these individuals’ spell checkers were working, but the usage is incorrect, and not all computer editing programs have been set up to look for these errors. (Even those that have been set up are not always one-hundred percent accurate.) Trained editors can evaluate whether a suggestion from a computer text editor is appropriate or not. David L. Major (2010) explains that usage problems alone can be reason enough to have someone familiar with editing take at least one pass of a document (p. 156). Major is not alone in this reasoning; Holly O’Donnell (1987) notes, “Computer text editors are not without their limitations. Some usage programs single out *utilize* and suggest *use* to replace it, but ignore *utilizes*, *utilization*, *utilizer*” (p. 364). Figueredo and

Varnhagen (2006) found that “college students’ content revisions are related to their writing experience.” Even with the variety of options presented by a computer text editor, college students who were more skilled in the realm of editing corrected more errors than less skilled students did (p. 722). Having editing skills remains necessary; Tim McGee and Patricia Ericsson (2002) state, point-blank, that “leaving decisions about grammar up to Microsoft is simply unacceptable.” Further, they state that “we need to understand the subtleties of grammar far better than most of us do” (p. 465). There is a danger that comes from relying on spelling and grammar checkers when one is not familiar with the rules and guidelines that computer-suggested corrections are based on. In another one of his articles, Major (2017) brings to light the fact that “writers expect computer editing to work well, especially those writers who need the help most, believing that the tools will not miss errors and accepting false corrections without question” (p. 10). Computer text editors can prove to be quite useful, but it seems that the majority of scholars believe that in order for computer text editors to be the most useful, the user must have the necessary knowledge to either accept or reject the given suggestions.

The Usefulness of Computer Text Editors

Writing instructor Linda Hunter (1984) at St. Olaf College came to accept the idea that computer text editors can be useful. She “became convinced that the text editing feature of a computer can indeed be a humane and useful tool to help developing writers” (p. 13). Finding that the text editing feature could be useful for writers came from her experience working with other students using the same checker program she became familiar with—one used with the UNIX operating system. Using the checker in UNIX, one student might find a new technique for searching for a new word, and Hunter would encourage that student to share the newfound technique with the class.

In terms of spelling, computer text editors are useful. Several researchers, such as David Major, Lauren Figueredo and Connie K. Varnhagen, and Holly O’Donnell agree; however, these experts also acknowledge that spellcheckers lack skill when it comes to questions of usage. Major (2017) considers the word *defiantly*, which is a correctly spelled word but is the incorrect word to use when one means to use the word *definitely* (p. 19). Besides problems

with usage, spellcheckers actually do a great job; as O'Donnell (1987) puts it, "when a word is misspelled, it is misspelled" (p. 363). O'Donnell also acknowledges that by using a spell-check editor, writers can deal more with style and development of their ideas and less with correcting spelling, grammar, and syntax mistakes (p. 364). Figueredo and Varnhagen's research (2006) looked at whether computer text editors would affect a student's ability to revise; they found that spellcheckers "are helpful yet do not inhibit students' ability to make content revisions" (p. 721). The research shows that spellcheckers are more useful than not, regardless of one's familiarity with editing training.

Besides having a clean manuscript to manually edit, according to Major, one should also try not to rely on a computer text editor because of the limitations the checking tools have. Computers cannot grasp the meaning of sentences, making them less likely to offer correct solutions to errors (if they can even find each error). In his 2010 article, David Major says, "Good impressions of computer spelling and grammar checkers are not usually supported by the evidence" (p. 147). In an even more recent article, Major (2017) affirms that computer editing is untrustworthy (p. 9).

The Benefits of Peer Edits Over Computer Edits

Multiple scholars have evaluated writers in various grade levels, arguing that computer editing programs are more effective than peer editing. Bridget M. Dalton, for instance, wrote a dissertation on the effectiveness of peer editing versus computer editing for fourth-grade students, and Rosemary Kowalski researched the attitudes of college students concerning the assignment to either edit a paper digitally or by hand. Although each study was done in 1991 and 1990, respectively, their findings are still quite valid today. Dalton's research showed that "the spelling checker's technological limitations and difficulties of the collaboration process were the most frequently cited disadvantages" (p. vii). And even though the spelling checker considered in this dissertation is now a few decades old, what little research has been done on the improvement of spell checkers over time shows that the improvement is not as much as you might think. In a comparison of Microsoft Word 2003 to Word 2007, David L. Major (2010)

took the original text-only files from Word 2003 and opened them in Word 2007; after reviewing the flags and suggestions, he compared them to records of the results from checks with Word 2003, finding that Word improved its results in two of the twenty-one categories of errors (improved by 54% for apostrophes and 25% for usage) (p. 162). For the purposes of Dalton's study, two fourth-grade classes had been split into one of two groups: a spellcheck group and a peer edit group. After a six-week period in these groups, the spellcheck group "produced more accurately edited texts than the peer edit group," but considering the amount of missed errors that even the spelling checker did not catch, these students were only correcting about 45% of their errors. Although the results seem to be most in favor of computer edits, the results also point to the "importance of teaching children to supplement spelling checking with careful human editing" and that "peer editing for spelling is not an effective strategy for beginning writers" (Dalton, 1991, p. 74). This idea connects to the earlier discussion about the importance of being trained in editing; a peer can only catch more errors than computer editing tools can if said peer knows what to look for. Otherwise, studies like Dalton's show that the computer can find more, leading to the misconception that the computer checkers are always more accurate. O'Donnell (1987) reminds us that "some spelling checkers cannot detect misspellings that depend upon context, as do *their* and *there*" (p. 363). Citing Dennis Moore's 1983 Midwest Writing Centers Association Conference presentation titled, "What Should Computers Do in the Writing Center?," O'Donnell also writes:

The computer can tell how long the sentences are and can calculate a readability rating according to a mathematical formula, but it cannot take into account factors far more relevant to communication. Any attempt to move from formal analysis of sentences to meaning—meaning in a human context—will encounter such difficulties. (p. 364)

Again, these scholars remind us that computers can be programmed with suggestions, logistics, and rules, but we must not trust computer editing tools to understand meanings and intentions—that is where the most errors come into play. A computer editor will never yield an emotional connection to a piece of writing. In McClellan's article, she discusses this idea, pointing to the benefit of having human editors because of their

emotional connection to accuracy; fear of career failure, competitiveness, or experiences where wrong information has done more harm than good is good motivation for an editor to strive for accuracy (McClellan, 2001, p. 58). When an author allows a peer to edit his or her document rather than relying solely on the suggestions from a computer editor, the stakes are higher, therefore encouraging more accuracy in the final work.

Gaps in the Research of Computer Checker Abilities

There are pros and cons to using computer editing tools versus live editors. It may seem as though both sides of the coin have been researched, and yet several of these scholars mention that there is further research to be done. For one, researchers David Embley of Brigham Young University and George Nagy of the Rensselaer Polytechnic Institute (1982) wrote about their intentions to do further research because they realized in the course of their study that their overall experiment about the psychology of computer text editing was intricate and complex. They realized that after acting as subjects themselves to generate an “optimal” editing sequence for their experiment, they did not even know how to characterize “optimal.” Upon this realization, Embley and Nagy said, “We are unable to set a firm direction until [creating an optimal computer text editor] is accomplished.” That being said, they “do not . . . expect to find major differences among editors or opportunities for significant improvement in editor design for routine tasks” (p. 154). Perhaps this confusion over the term *optimal* is what is keeping computer text editors from improving more. Two other researchers, Teresa L. Roberts and Thomas P. Moran (1983) from the Xerox Palo Alto Research Center agree that the methodology used by computer text editors “could be improved by both refinement and extension” (p. 282). More research can certainly be done on what makes a computer text editor optimal and refined, which may lead to overall increased accuracy and efficiency.

Research can also be done on how computer text editors can be used more flexibly. Any editor knows that there is more than one stage of editing, but computer text editors do not necessarily work through various stages, they seem to only edit as if a text is in its final stage (Figueredo & Varnhagen, 2006, pp. 730–731).

The revision stage could also use more research especially where collaboration is concerned; Rosemary Kowalski (1990) reminds us that there is not a lot of research about using computers in peer editing (which would be incredibly useful to know, considering an editor’s job relies heavily on their communication with authors). Considering her findings, Kowalski muses that “whether or not the computer method produced peer editing superior in any way to the pen and paper method is a question still to be answered” (p. 39).

The biggest gap in research (based on each scholar’s experience) concerns how flexible, subjective, and responsive computer editing tools can be—in other words, can the most human aspects of revision (correcting and revising content based on meanings and intentions) be incorporated into computer editing tools? This is where further research is needed.

Conclusion

Above all, when text needs to be edited, it ultimately matters less what kind of editor is used than how accurate the final text is. As Simon Gatrell from the University of Georgia says, “The actual text is less important than the accuracy and completeness of the work as a whole” (p. 545). Those means, according to what these scholars have said, are to use a combination of computer editing tools and human editors.

Scholars have spoken both for and against using computer editing tools, but the majority agree that computer editing tools can be beneficial in the revision process of writing especially when paired with a human editor’s knowledge and understanding of not just the rules and guidelines of language but of an author’s meaning and intentions. Although scholars like Hampden Smith, Rosemary Kowalski, Robert Dale, and David L. Major make valid points for editing by hand being the superior method, each of them, in addition to scholars like Lauren Figueredo and Connie K. Varnhagan, Bridget M. Dalton, Linda Hunter, Holly O’Donnell, and others, propagate their position, saying that computer editing tools can be beneficial for simplifying the revision process, useful for making spelling corrections and suggestions, and helpful in collaboration with peer editing. Computer editing tools still need improvement, especially because people have yet to figure out how to program such tools to accurately correct text based on an author’s meanings and intentions. As more research is done,

computer editing tools will become more reliable; but the responsibility for accuracy in text ultimately falls on the human editor and never on the computer text editors.

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