

CS-6750 - Project

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1 INTRODUCTION

For this project, the software interface of the desktop program called **Scrivener** will be inspected for needfinding, evaluated against a set of heuristics, and finally improved via higher fidelity prototyping. To be able to use the Scrivener program, it is assumed that the user has either a desktop PC or Mac. For this assignment, the PC version will be evaluated.

1.1 What is Scrivener?

Scrivener is a desktop application targeting primarily the Mac and Windows platforms that is used by writers to organize, plan and write their works (Latte, 2021). The program is marketed to writers as a way to break down writing chapters and sections into small segments, and organize these segments serially. The program is advertised as supporting a familiar text editor with formatting, the ability to import from Word files, to organize index cards virtually on a virtual corkboard, and to plan the structure of a written piece via an outliner. Finally, the program supports exporting the document to a final format for publication.

1.2 How to Access the App

To try out the application, visit <https://www.literatureandlatte.com/scrivener/overview> and click download on the platform of your choosing. Please note that each platform supports a sub-selection of features. To be on par with this project's activities, using the PC version is recommended if you choose to download it. Version 1.9.17 will be evaluated as it covers the time period to late 2020 that the needfinding reviews will be based on.

Install the application by running the downloaded executable. Once installed, open up the app, you should be presented with an initial start screen.

From here, to get a feel for the application, click on Continue with Trial, and then click on the Fiction icon on the left side of the New Project dialog. Fill in "test" as the Save As title, and finally click on the Create button that is outlined in blue. You will be now greeted with the main application screen as shown below. Major features are labeled in red text. Feel free to click on each part to

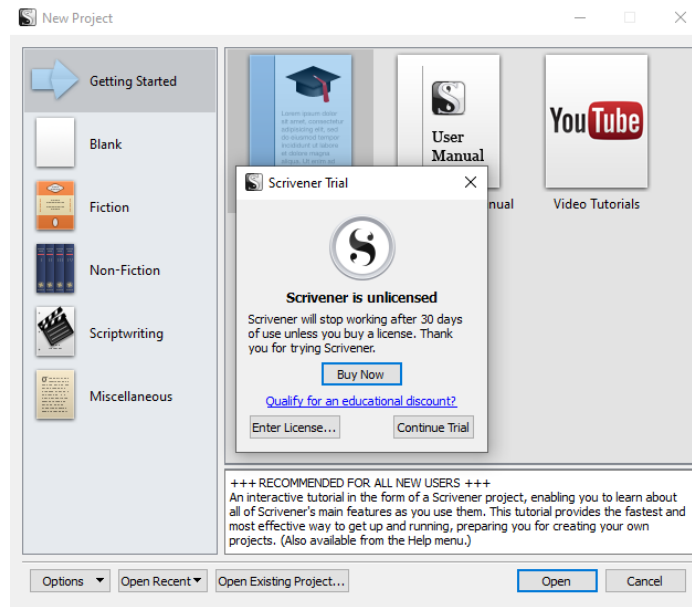


Figure 1—Initial Screen of Scrivener

get a feel for the major features offered by the application.

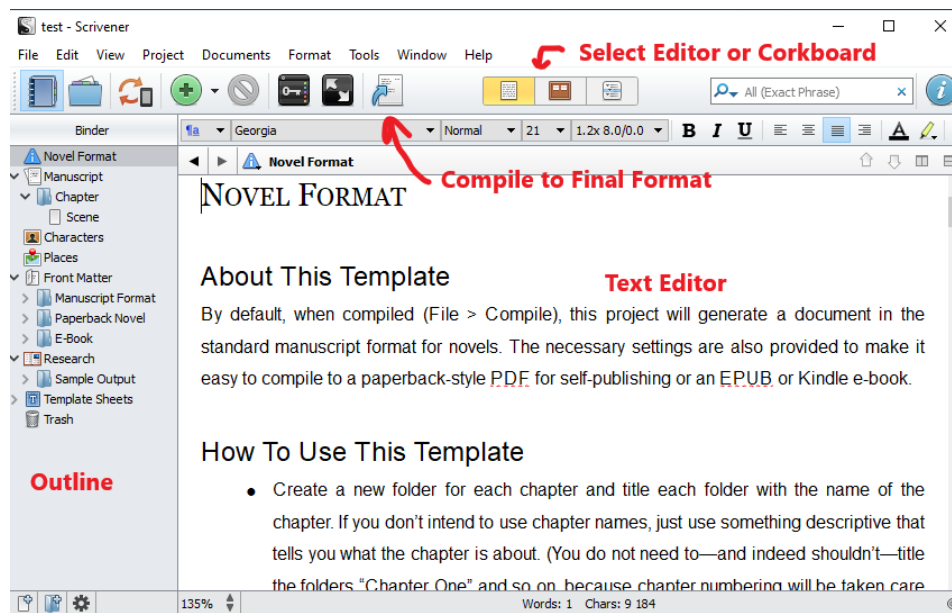


Figure 2—Main App Screen of Scrivener

Users will likely want to add additional items to the outline section, representing additional chapters to the book. The text editor section can be used to write each chapter, and the corkboard view can be used to add any notes or index cards

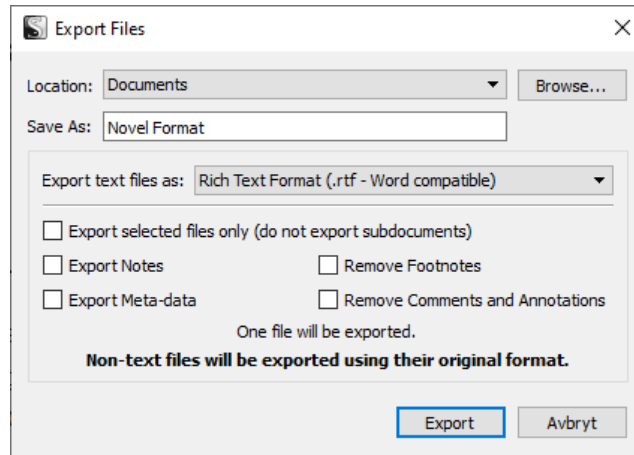


Figure 3—Export Dialog for Scrivener

for planning if so needed along the way. When the author feels done, they can press the compile button to export and combine all the sections into a final book format for review or publication.

2 INTIAL NEEDFINDING

2.1 Needfinding Type

The needfinding type that will be conducted is to analyze and use publicly available non-paid or non-affiliate product reviews of Scrivener located on the web. One primary review source will be used: Amazon customer reviews (Amazon, 2018) for the product. The majority of public reviews for the application are for the PC version around 2020 and prior, so the PC version associated with the reviews will be used and improved upon when devising a new prototype later on. As it turns out, it is only in the last month or two that a new version was released for the PC, so the arguments presented in these reviews are likely still to be quite relevant considering that the PC version still lags behind the Mac version as one can see on the download page (Latte, 2021). The reviews are consistent with the 1.9.17 version named earlier in the introduction.

2.2 Needfinding Plan

In order to identify needs and those needs that are not being met by the PC version of the application, 100 of the lowest-scored reviews will be collected. First one-star reviews will be collected up to around year 2017, followed by two-star reviews and so on until 100 have been identified.

A number of complaint categories will be identified and the number of reviews that falls into one or more of each category will be tallied in order to paint a picture as to what is not working with the application, what the expectations of users are, and what needs the users have. The results of these categories will be prioritized, taking the most frequent categorizes and imagining improvements or additions to the interface to help meet the user's needs.

2.3 Executing Needfinding

The summarized list of complaints tallied up in terms of occurrences is shown below:

- Difficult to use or navigate UI: 25
- Paid for product (1 or more times), activation code did not work: 20
- Bad customer support: 12
- Could not install or not easy activation process: 7
- Tutorial and manual too long or focuses on wrong content: 7
- Use word instead: 7
- Bought, no license provided: 6
- Slow or locks up: 5
- Windows version lacking advertised features: 5
- Cross-platform incompatibilities: 4
- Export formatting problem, especially expectation violation of word export that is instead semi-featured rtf file: 4
- Refund refused: 4
- Download failed, network error: 4
- Crashes: 3
- Compile messes up: 3
- Price change: 3
- Had to pay more than once: 3
- License number provided but not the needed license code name as well: 2
- Update corrupts book or book got deleted: 2
- License is only for one device, new computer requires repurchase: 2
- Word or webpage import breaks: 2
- Does not follow standard UI conventions or buttons work only sometimes: 2
- No back button like in word: 1
- Dictionary or spell-checker is poor: 2
- Commands not standardized with other programs: 2

As one can see, there are numerous issues with the software, however the most frequent problems had to do with the user interface being difficult to use, the license activation process being difficult or impossible, bad customer support, or that an advertised feature did not work as intended. In addition, many users had troubles when an update would occur or when using the same save file between platforms or versions, as this would corrupt the files. The import function from word largely did not work as intended, and the export to word was also problematic as it exported to an rtf file which was not what users expected. Another big thing that caused issues was buttons, UI elements and keyboard commands not being standardized with other programs and the operating system's default. Many users chose to use another piece of software instead, such as Word, LibreOffice or Pages.

It was named in many of the licensing activation problems that either customers did not receive a code, or they received subsets of the required serial number name and code, or that their code didn't work at first but worked a week later. Clearly the license activation process is entirely broken, since so many reviews complained about this, or had to struggle to get the software to activate. A large amount of design work and improvements can be made with the activation process in mind.

2.4 User Expectations of the Software

Users expect that the software to work as advertised, and some features that were sold were not in the final product on Windows. Users also expect the activation process to be smooth, or that an easy way to get in contact with responsive support is supported. Users were jarred by the non-standard user interface. In particular, users expected that standardized buttons and keyboard shortcuts would work the same in this program as others. Users had issues between versions and platforms, and had otherwise expected that the experience and use of the program to be identical regardless of operating system or save file. Users also expected that it would be enough to have an email or a purchase receipt to reactivate the product when they bought a new computer.

Many of these needs are simply making sure that the activation process is improved to be smooth, or that there is a simple way or reactivating. The buttons and user layouts should be changed to reflect the default standard for programs on windows, so that they work as expected when users use their muscle memory.

Things like a back button should be implemented. Since many users reported giving up and going back to using Microsoft Word, Pages or LibreOffice, it probably would be beneficial if the layout of buttons and controls would be made more standard to look like existing competing word processors. These changes represent mainly improvements or changing of existing features to meet user expectations. Other changes to address all complaints would have to be prioritized after these above needs are met. Customer support is out of scope for this project, even if it is important.

For a full copy of all 100 summarized reviews as well as omitted tally groups, please read Appendix A.

3 HEURISTIC EVALUATION

3.1 What works well and what makes it work well?

The major aspects that work well in Scrivener is that the program puts all aspects to creating a novel, all in one place. The word processor in general works fairly well for what it supports, and the application does an excellent job at organizing writing of large works into manageable chunks.

3.1.1 *Everything in One Spot*

When working on a novel, there are several components one has to manage: writing the chapters, organizing and reorganizing chapters, managing notes, proofreading, and packaging all pieces into a production format. Scrivener in general goes a good job at collecting all of these components into one place, so that authors can stay in one program instead of context switching between many programs and manually managing files on disk. This offers great time-saving value for authors during their writing process, especially if said author is a self-publisher and must manage the packaging of the product as well.

By collecting all components in one spot, a user can keep a fairly accurate **concept model** of how both the program works but also the entire layout of their novel. This leads to the user having a fairly accurate idea of how the final product will look like. The **mappings** here are fairly consistent and close to the actual objects being manipulated. That is, the editor directly modifies the selected chapter, the outline accurately represents the various sub-documents that can be rearranged, and the cork-board represents notes placed on a board, much

like the actual physical version of such. In a sense, the user interface uses **constraints** by only showing one view at a time. Either a user is editing a chapter, or writing their notes. In this way manipulations and buttons on each view cater to each specific task and avoid unsupported manipulations. By placing all components into one program, a user can decide to focus on mastering Scrivener instead of a number of separate programs, boosting **discoverability** as a user will spend most their time in one spot with easy to see and access buttons to compile, import or edit their novel.

3.1.2 The Text Editor in General

While the editor has drawn some critique for being too basic or too complex, in general the editor works well for what it offers. It supports letting the user type in their content, it autosaves for the user, lets them bold and increase the font size. Finally it even lets the user create basic tables, bullet-point lists and highlight text. These features are enough to write most standard novels and Scrivener does a decent job at this.

The editor in general does a good job at providing direct **feedback** when one clicks on one of the format buttons. Click on bold will immediately bold the selected text, or any other text that one types in afterwards. Changing the font size also immediately updates what is show on the screen to the user, giving them a real sense of control of their work. This immediate feedback helps the user cross the **gulf of evaluation** almost immediately, as the result of their actions was show back to them right away. Buttons on a toolbar about the editor field provide the **affordances** for users to edit their text in any way they see fit, including highlighting text or justifying a portion of it. The buttons to activate each formatting are a form of **signifier** that those affordances exist in that they use clear icons to advertise that fact.

3.1.3 Organize Writing into Chunks

If working in Word or another word processing program, one has to either put in headings inside documents to label where chapters start, or to create a file for each chapter on disk and organize the order of such manually. Moving chapters around inside the same file in say Word can require some very careful copying and pasting. In contrast, Scrivener lets users organize their writing into chunks, which can be reorganized easily.

By organizing writing into chunks, whether that be chapters, sub-chapters or just happenings in a novel, Scrivener does an excellent job at letting the user decide what granularity they want to work at. The interface provides an **affordance** to split up work in that way and also rearrange the order of each chunk at any time via a drag and drop outline in the left-hand side of the application. In terms of the **gulf of execution**, the user interface helps the user quickly identify actions to do to rearrange items, as users can directly manipulate the order of such items by clicking and dragging into the spot of their choice. By the time the user plans to execute said action, they most likely already have done it, after having clicked on an item to pick it up and then thinking of where to move the item while actually performing the action. This gulf is crossed fast and painless.

3.2 What doesn't work well and why doesn't it work well?

This is where things become even more interesting, as the following aspects are things that Scrivener should improve in order to take their product to the next level.

3.2.1 *Product Activation and Startup Process*

The current product activation and startup process is a disaster for many of Scrivener's users. How it works is that all downloads of the product represent a 30 day demo. After 30 days, a user must enter an activation code in order to continue using the product. This code is case-sensitive and it is also important to remember which email that was tied to the code. If one manages to forget the license string, then one has lost access to their copy of Scrivener. As users have noted in reviews, often this code fails to get emailed out on purchase, or it fails to work for the first few days or not at all once they have received the activation code. This shows that the process of activating the product is quite brittle and yields many 1-star reviews. People who want to use the product, and manage to pay for it (sometimes even several times) but fail to get the software to activate or accept the activation string.

While the interface gives back feedback when it interprets that an activation code is incorrect, it does not hint that the code is case sensitive. If no code was sent out in the first place, users are left with little options for resolution, as shown in the 1-star reviews due to unresponsive support. In many ways, the activation process is an anti-affordance, as it often leads to the user not even being able to use the application. The gulf of execution and evaluation is often not crossed,

as a user will try something out and double down on re-pasting the code they were given with no feedback into how to solve their problem.

3.2.2 No Undo

Scrivener does not support an obvious undo button for edits, either in management of the sub-documents or content changes. This makes an action in the interface potentially permanent, and makes even trivial operations to be high-stakes.

In order for an interface to be considered to be supporting direct manipulation, it must also allow for incremental reversible operations (Hutchins, Hollan, and Norman, 1985). Scrivener violates this by not providing an undo and redo button. This makes any action in the interface both permanent but also a little scary from a user's point of view. This aspect hurts **discoverability** in the interface, as users are less likely to test out new functions that they yet have used, as doing so might mess up their work permanently. This is a huge shortcoming of the program.

3.2.3 Export Process

The current export dialog shows many options, where a user might instead be quite happy with the defaults and not want to get bogged down with the number of options. The default option of exporting to RTF format is misleading as it states it is compatible with Word, but in reality it is less so. In addition, no feedback is given as well when complete to indicate if it worked as intended or not.

The user interface does a poor job of using **constraints** in this aspect, as the export dialog is more complicated than it needs to be. In addition, it defaults to exporting to an RTF file that is named to be Word Compatible. User reviews show that this file is less compatible than exporting a regular Word file. The label of being Word Compatible breaks a user's **concept model of the system** as the user thinks the result will work in one way, while in reality it does not work as advertised. The export process does a poor job of providing **feedback** as well that an export executed successfully. The dialog simply disappears when done, and a user has to double check that it worked by going to the folder where it was supposed to export.

3.2.4 *Difficult to Learn and Use User Interface*

While this is more in the abstract, Scrivener in a sense does not mimic any other interface in its unique ordering of toolbar buttons, icons, and finally the three views layout that characterizes the layout. For a new user, this adds to their cognitive load as they have to first learn to use the interface before they can start writing. The manual is also large and many users report not bothering reading it.

The reason why the interface is so difficult to use to start, is that it does not follow design conventions used by other applications, and thus breaks **consistency** with other apps in the same domain. The order of buttons are different in Scrivener compared to Word or LibreOffice, and the organization of features is also greatly different. Users can't capitalize on previous knowledge of say Word or LibreOffice, which can make even other expert computer users **feel hopeless** as the interface constantly works in a different way than expected. If the interface had used the same layout of similar actions as say Word, power users of Microsoft Word would feel comfortable in Scrivener. Thus Scrivener suffers from an extreme **learning curve** that has not improved over the years, even with additional additions to the very large manual. This is likely an **expert blindspot** that the authors of the program are so used to the layout that they have a hard time seeing that it doesn't follow the conventions of other document processors.

4 INTERFACE REDESIGN

Below, a number of cards will be displayed of the interface redesign. If you would like to instead click around in an interactive version of the following prototype, first download the project file located here: <https://drive.google.com/file/d/1whYuAXP1vW5hyYAlgeMvtYJJk1cs-NIx/view?usp=sharing>. Then go to <https://www.justinmind.com/>, create a 14 day free trial account and download their prototyping tool. Install the tool and open it. Once opened, click File > Open > HCI-christopher-cdoane3. You should also be able to double click on the project icon to open it on the Desktop once the prototyping software is installed. Once the project has been opened, click on the Play arrow button located on the top right-hand corner of the editor to simulate the user interface. Be sure to be on the Login page of the interface to start.

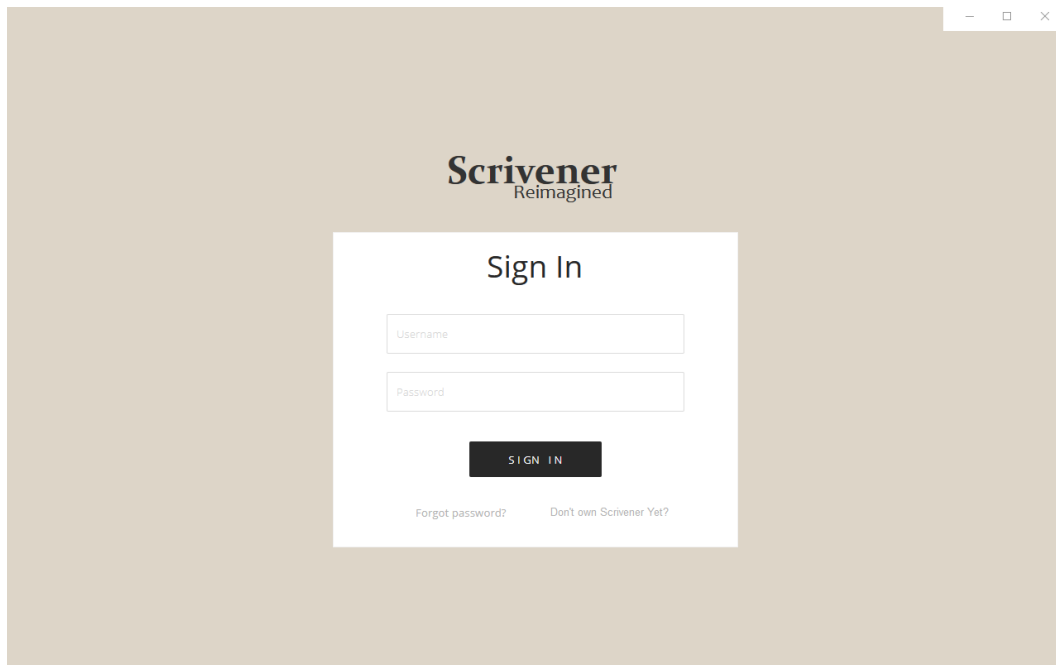


Figure 4—Redesigned Activation / Login for Scrivener

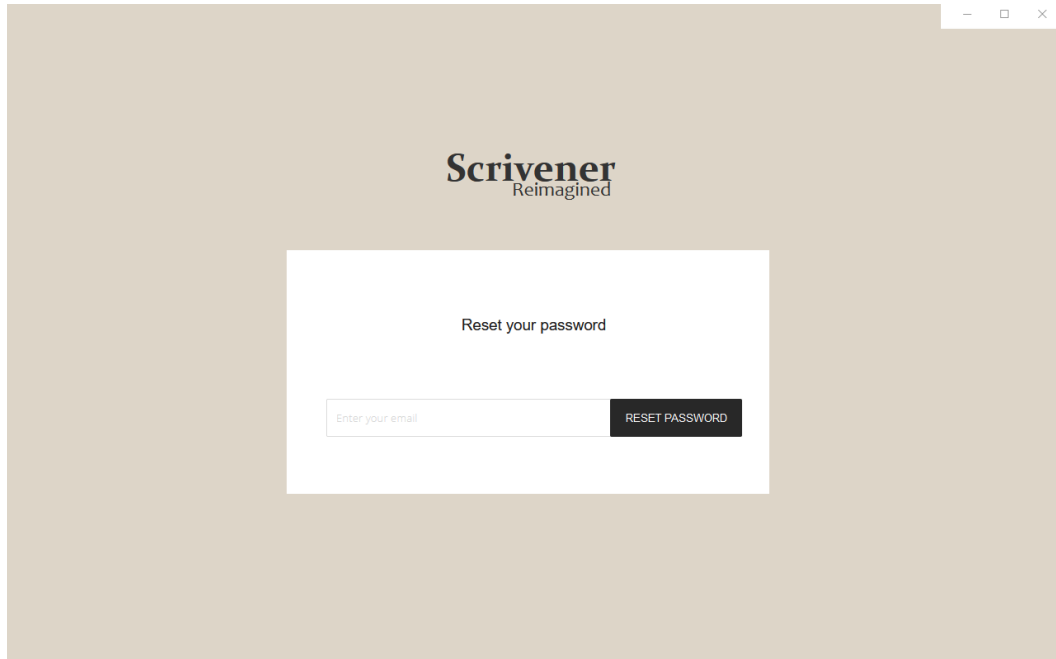
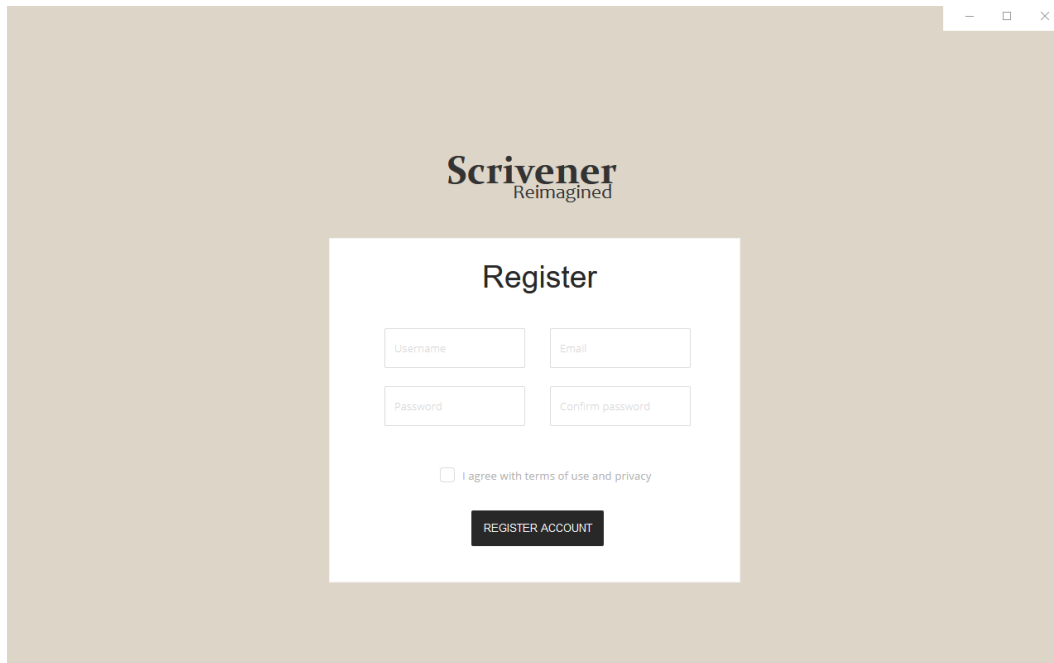


Figure 5—Redesigned Activation / Reset Password for Scrivener



Scrivener
Reimagined

Register

Username

Email

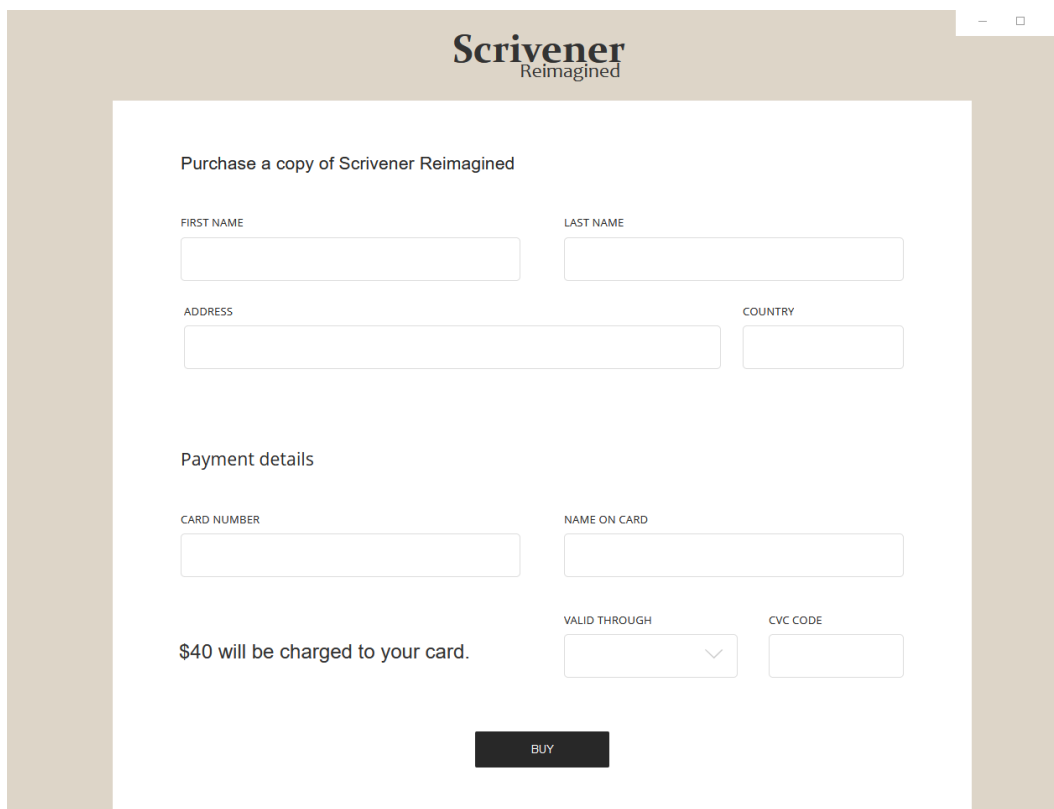
Password

Confirm password

☐ I agree with terms of use and privacy

REGISTER ACCOUNT

Figure 6—Redesigned Activation / Register for Scrivener



Scrivener
Reimagined

Purchase a copy of Scrivener Reimagined

FIRST NAME

LAST NAME

ADDRESS

COUNTRY

Payment details

CARD NUMBER

NAME ON CARD

\$40 will be charged to your card.

VALID THROUGH

CVC CODE

BUY

Figure 7—In-app Purchase for Scrivener

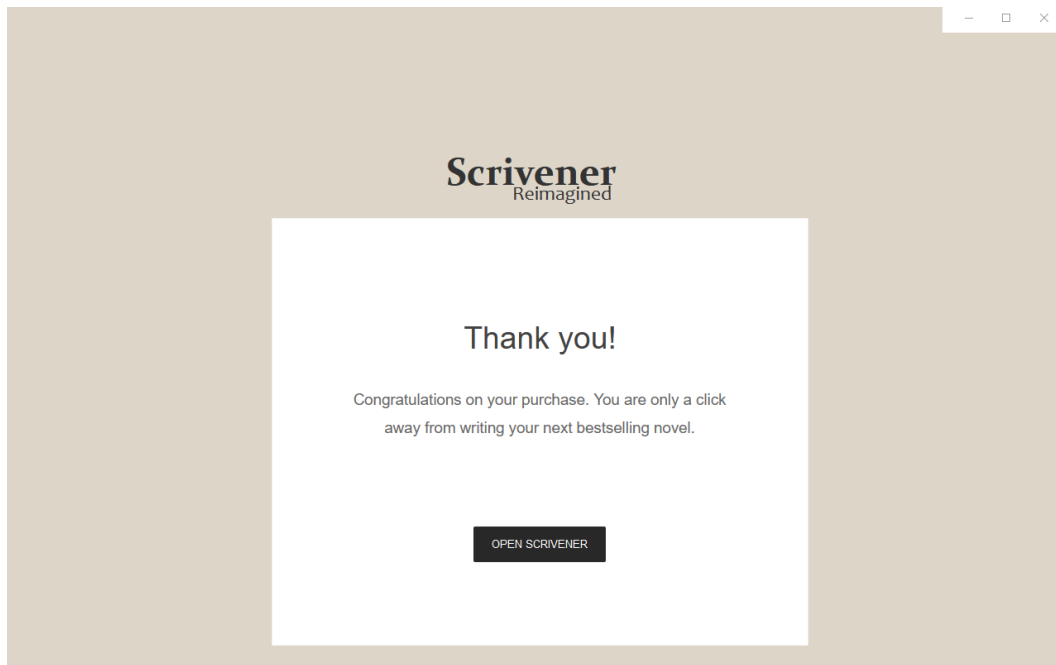


Figure 8—Completed Purchase in Scrivener

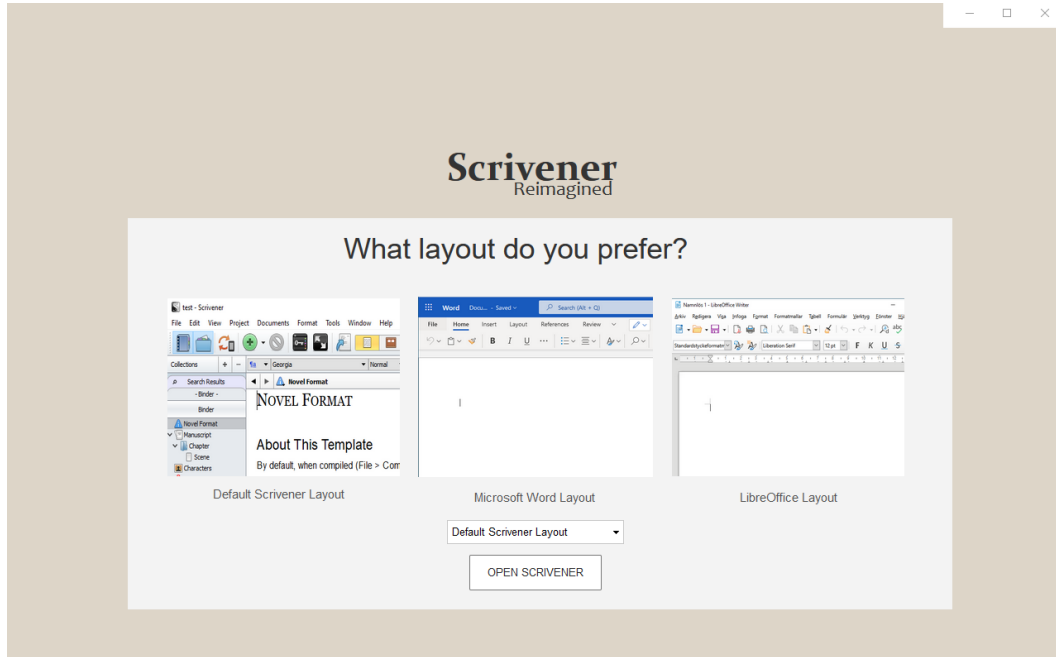


Figure 9—Layout Select During Startup in Scrivener

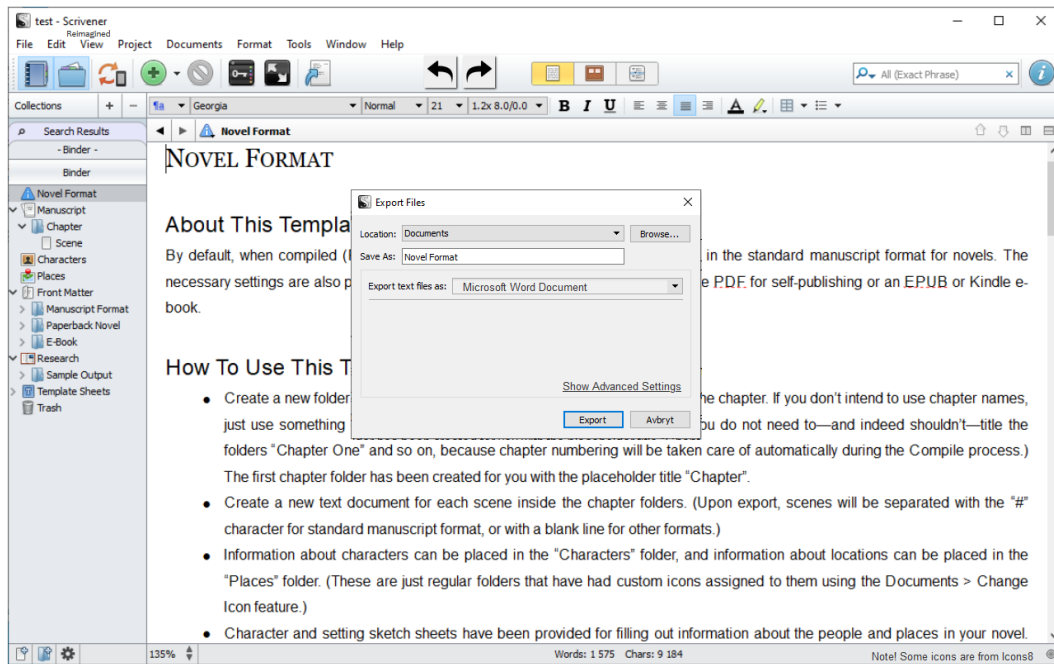


Figure 10—Default Layout in Scrivener with added Undo and Redo Buttons and Simplified Export Dialog

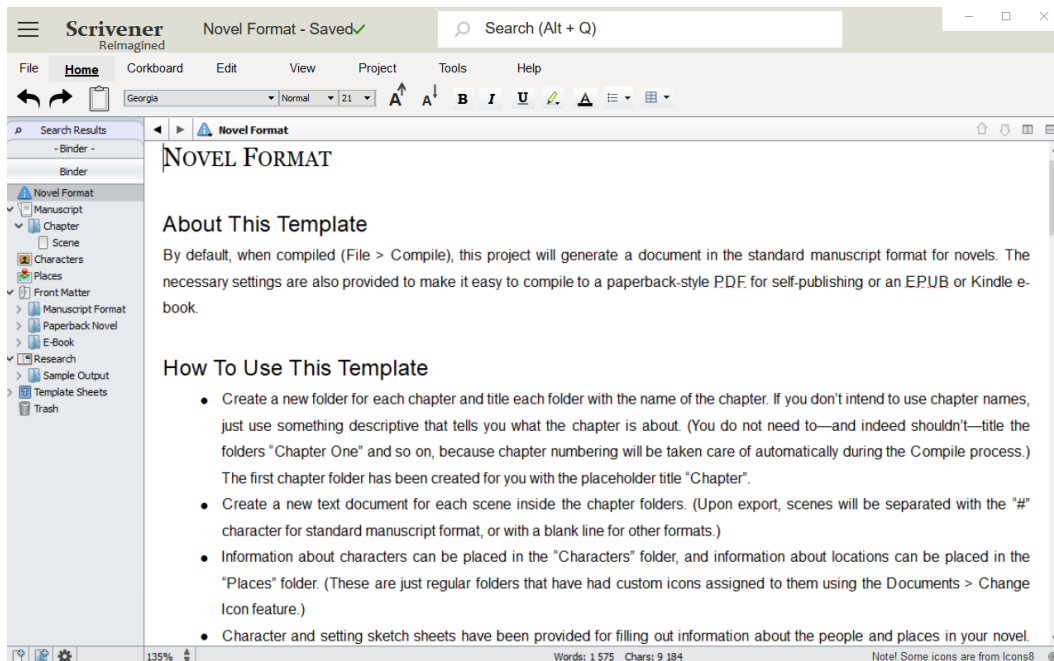


Figure 11—Microsoft Word Inspired Layout in Scrivener

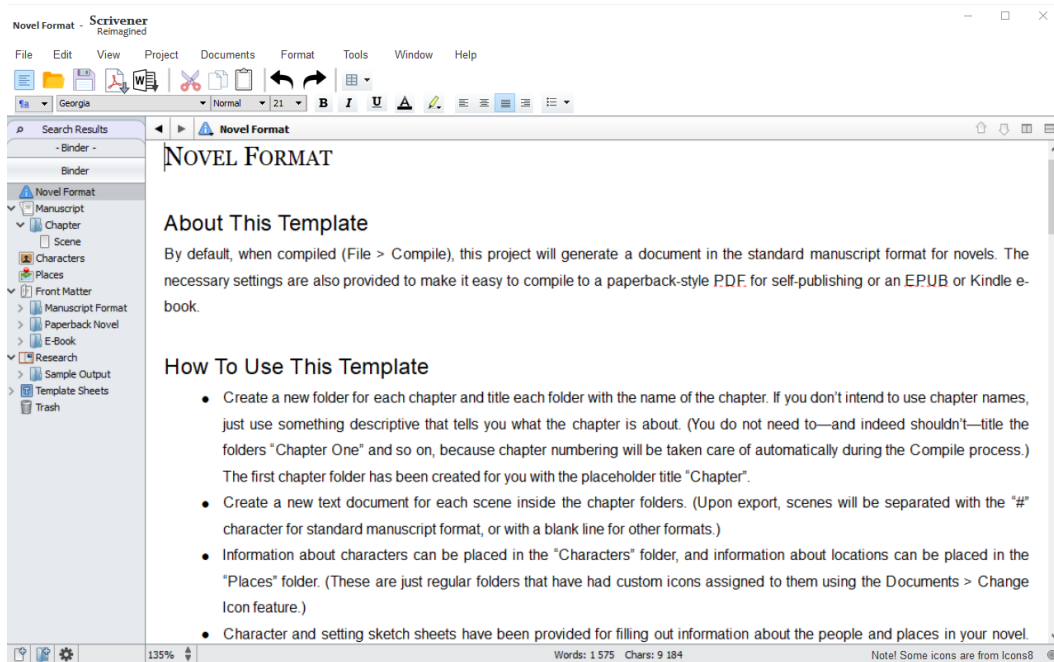


Figure 12—LibreOffice Inspired Layout in Scrivener

5 INTERFACE JUSTIFICATION

The main focus of the new interface was to solve the following problems: to streamline the activation process to avoid error, to simplify the export dialog, to add in an undo function, and to capitalize on the user's previous experience with other word processors by reordering the UI elements to mimic what they are used to.

5.1 Activation Process Replaced with Account Login

Previously, users would have to purchase Scrivener and were emailed or messaged an activation code that they could use to activate the product for use. This process was brittle in that this key often was never sent out, was easy to lose or just did not work.

The way this problem was solved was to replace the entire activation process of using license keys, with a simple login system where as long as you logged in once to your account, your copy of Scrivener would work. The concept of activation is now gone, and instead replace by a user account that one logs into. This eliminates the error of handling activation strings, since they no longer exist. If a user forgets their password, they can simply request a password reset

as shown in Figure 5. This should also hopefully automate away most support inquiries to the company related to product activation, and avoids a potential **expert blindspot** in that some users are not used to handling product strings for activation. The login interface is fairly standard to other login interfaces with a username and password as well as a register and forgot password link. By being standard, this interface takes advantage of users' existing experience with login-based systems, and helps boost **understandability** by not straying from the norm. The interface gives a clear **feedback** when a password was incorrect, and after multiple tries the Forgot password? link blinks to highlight how the user can solve the situation. On successful login, the user is quickly presented with the next screen, thus minimizing the time for the user to cross the **gulf of evaluation** of evaluating if they logged in correctly.

The new redesigned prototype even lets the user purchase the product from within the program, thus giving the user an option that requires very few clicks to acquire the full version of Scrivener. The company behind Scrivener can even choose to keep enforcing the one install per user requirement by logging out the user on other computers if they log their account on a new one.

5.2 Simplified Export Dialog

Users had mentioned in product reviews that the export dialog had set the file option to RTF as default. Additionally, this format was labeled as being compatible with Microsoft Word as shown in Figure 3. In reality, this exported format was not very compatible. The new default is to instead remove the RTF format and go with the true Word format as a default, as it was in the previous list of supported export files. Now we can hopefully minimize violating the user's **concept model** of the result, as the Word file will be more compatible than the previous default.

In addition, users who complained in reviews had found that the displayed grid of export options to be too complicated. To alleviate these issues, the export dialog shown in Figure 10 was simplified to hide all the extra options behind a "Show Advanced Settings" button. That way, the interface reduced clutter and **constrained** the user to using the defaults and only displayed advanced settings when the user explicitly wanted to do so. This constraining can hopefully make the process seem smoother for most users, alleviating the risk for novice users to check-mark the wrong setting, while still catering to advanced users who need

the extra features. On successful export, Scrivener now opens up the destination folder so that the user can immediately use the exported file, reducing the time to cross the **gulf of evaluation** by providing immediate **feedback** that the export action was successful.

5.3 Letting the User Pick Their Preferred Layout

The complaints about the interfacing being complicated, difficult to use, confusing or not following application conventions was addressed by increasing the **flexibility** of Scrivener and letting users choose between three different layouts that mimic existing popular word processor programs. Users can choose to either use the default existing Scrivener layout or to choose a layout the mimics the way Microsoft Word organizes their toolbars, or alternatively how LibreOffice does it. The existing layout was preserved as an option so that existing users who have grown accustomed to the interface could skip having to change their ways. See Figure 9 for the layout selection dialog, and Figures 10, 11 and 12 for each interface.

By rearranging the interface layout to reflect something users are already used to, we can avoid a large chunk of the **learning curve** that Scrivener has. By delivering an interface that is **consistent** with other interfaces, users can instead focus on writing and exploring the features that are solely unique to Scrivener. In reality a good chunk of features are shared between word processors, so the reorganization of layouts translates quite well. Users can start using the interface straight away, as the **understandability** of the interface is greater when it is similar to what they are used to.

5.3.1 *Preserving the Everything in One Spot and Text Editor Benefit*

It was important to not remove any functionality from Scrivener, so that regardless of what version a user chose, they could still perform any operations that were supported. The difference between these three options is simply how and where various icons and features are organized and show to the user. The text editor has not been modified, only the controls for various word processing capabilities have been rearranged in the order to match the default order in Microsoft Word or LibreOffice.

5.4 Supporting Undo and Redo for Actions

As one can see in Figures 10, 11, and 12 in comparison with Figure 2, an undo and redo button was added to the top toolbar of the Scrivener interface. This is an entirely new feature that would greatly improve the experience of using Scrivener.

The buttons themselves are **affordances** to enable the user to back up from an operation they did not want to make. The reason why these two buttons are in different locations for the three different layout options, is that each of those layouts have the undo and redo buttons placed in the locations that one finds them in the interface Scrivener is trying to mimic. This can hopefully also capitalize on the user's existing muscle memory, as the user might even be able to automatically move their mouse and click on the undo button subconsciously as they knew where those buttons usually are located for them. By placing them in an appropriate location where the user will likely expect them, we boost **discoverability** of the new undo and redo feature. Users should no longer shy away from trying out features in the applications, as their actions can be undone safely.

5.4.1 *Preserving the Organize Writing into Chunks Benefit*

The undo feature is quite advanced here, in that the purpose of it is to support any major change performed by the user. Small text edits can be undone, but even more importantly, a rearrangement of written chunks in the left-hand panel can be stepped backwards if an error was made. This way a user can feel even more comfortable using the chunking and sub-chapter features without worrying of losing their work after dragging and dropping a chunk to the wrong location.

6 EVALUATION PLAN

To evaluate the new interface prototype, real users of Scrivener will be recruited to test the interface out and give their honest opinion. Since this is the first prototype in a potential long list of prototype iterations, the first evaluation will be done qualitatively to gain insight into the thought process of participants. Only when a majority of users have identified that a certain idea truly is good, then a later empirical evaluation can be conducted to see if more users were successfully able to onboard and get started with the editor. The second evaluation would be in the future however.

6.1 Qualitative Evaluation Plan

6.1.1 Recruitment

Since it is important to have representative users participating in an evaluation of a prototype, I plan to recruit actual Scrivener users. This might seem difficult at first, however it turns out that there is an official Scrivener forum that owners of the product have access to. Given permission by- or in collaboration with the company behind Scrivener, I would recruit participants to the evaluation via that forum. The goal would be to target at least 25 users of mixed genders and age if possible through the forum.

6.2 Experiment Setup and Collection Method

Participants to the evaluation would be given a link to the interactive prototype file. To help eliminate the extra steps in installing the prototyping tool locally, I would make sure that the prototype is available and clickable on a publicly hosted URL. The user would be given the task to either login or acquire a copy of Scrivener via the prototype, then step through the startup process until the final view of the program was opened. There, users are asked to look around and think about what they see. Once they feel that they have explored the prototype to their satisfaction, they will be asked to fill out a survey. The survey will be hosted through Georgia Tech's PeerSurvey platform but distributed via an open link.

6.2.1 Survey Content

The following survey will be given to users to fill out after they have clicked around and explored the digital prototype. Answer options are listed to the right of the questions.

Questions:

- Select your age: [Under 18; 18-29; 30-39; 40-49; 50-64; 65+]
- Where are you accessing the prototype (multi-select): [At home, At work, Other]
- The login screen was what I expected [Rating of 1 to 5]
- Do you prefer the existing activation process or a login screen [Existing process, Login screen]
- Would you care to elaborate your thoughts on the previous question [short-

answer]

- One good thing about the login process was [short-answer]
- One bad thing about the login process was [short-answer]
- Which layout did you first choose when given the option [Default, Word, LibreOffice]
- Of the three layouts, which did you prefer [Default, Word, LibreOffice]
- One good thing about the layout you chose was [short-answer]
- One bad thing about the layout you chose was [short-answer]
- Would you like the layout selection dialog to be added to Scrivener [yes, no]
- The new undo and redo buttons was what I expected [Rating of 1 to 5]
- On a scale of 1 to 5, how much would the addition of the undo and redo buttons in Scrivener benefit you? [Rating of 1 to 5]
- The new export dialog was what I expected [Rating of 1 to 5]
- One good thing about the new export dialog was [short-answer]
- One bad thing about the new export dialog was [short-answer]
- Do you prefer the existing export dialog in Scrivener or the new one presented in this prototype [Existing dialog, Prototyped dialog, Indifferent]
- Any other thoughts you would like to add [short-answer]

6.2.2 Limiting Bias During Evaluation

One bias that surveys are well posed at avoiding is the observer bias. This is because all feedback is recorded in its original form, and there is less potential for social desirability bias to influence answers like how it does in in-person interviews. To overcome a bias in summarizing or interpreting user submissions, any compilations I create can be run through another third-party researcher to double check that I have not introduced my own bias while compiling results.

There is a chance that users may commit some recall bias, as they first interact with the prototype and then return to the survey to answer questions. There is a possibility that participants may remember what they did incorrectly, and this is something that has to be accepted when using the survey method. The deliberate thinking bias is avoided partially by having participants answer survey questions after they have interacted with the prototype, and not during the interaction. In this way, hopefully user interactions with the prototype will be more natural and less deliberate.

7 REFERENCES

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8 APPENDIX

8.1 Appendix A - Full Summarized list of Needfinding Reviews

To start, reviews were ordered by date to ensure no duplicates were recorded. The following list summarizes all 100 1-star reviews in terms of main complaints.

1. crashes, bad customer support, cross-platform problems.
2. change of price from 1 time to subscription.
3. revokes existing activation licenses often.
4. refuses to delete files, filled hard drive.
5. windows version not feature parity with other platform.
6. software update required money and held book at ransom.
7. can't remember license code name, but have license number. bad customer support.
8. need license code name (username), but only have license number.
9. each update corrupted book.
10. can only install on one device, new computer and support said no longer own product.
11. windows lacking in features and should be at version 3, formatting problem.
12. Paid for product, activation code did not work. Support refused to help.
13. Bought product several times, activation codes did not work. Support refused to help.
14. Paid for product, activation code did not work.
15. Liked product until to started crashing on start. Nothing could fix it.
16. Paid for product, activation code did not work. Support is automated answers.
17. Paid for product, given activation code but need a serial number name and serial number to activate.
18. Could not install. Refused refund.
19. Paid for product, activation code did not work.
20. Paid for product, activation code did not work.
21. Paid for product, activation code did not work. Software UI not professional. Can not open word documents without losing content.
22. Slow, confusing.
23. Paid for product, activation code did not work. Support unresponsive.
24. Paid for product, not provided an activation code.
25. Paid for product, never provided a serial number.

26. Paid for product, could not get it to download to computer.
27. Paid for product, could not install. Bought again on another platform. Was told by customer support that purchase was a lie and did not get help.
28. Locks up computer. No customer support.
29. Paid for product, activation code not provided.
30. Paid for product, activation code did not work. Support refused to help.
31. Paid for product, activation code did not work. Tried again 1 week later, worked.
32. Paid for product, activation code did not work. Support refused to help.
33. Paid for product, activation code did not work. Refund not possible.
34. Book got deleted by software.
35. Paid for product, activation code did not work, no serial number provided. Refund not possible.
36. Difficult to navigate. No refund.
37. Complicated navigation and organization, compile button results in mess, instructions not clear. Have to repeatedly press right order of buttons to get it to work. Does not follow the convention of a single or couple click export button like all other word processors.
38. Received product code, but could not get the download to download.
39. Software update is sold as an upgrade, yet it is only bug fixes.
40. Had to pay twice to get license.
41. Download fails, network error over and over.
42. Purchased software but never got serial name and number.
43. Does not work on google chromebook.
44. Bought it, license is for windows and not mac.
45. Support was bad, activation codes did not work. Codes only work in UK not USA.
46. Download fails.
47. Download fails. Only received a trial and not license.
48. Program locked up.
49. Overwhelming UI. Too many problems exporting a single file. Does not handle copy paste. Use word instead.

At this point the reviews after this are from 2017 and before. To be accurate with the version used for testing, 2-star reviews will now be analyzed and sorted by most recent. 50. Only works on one install. Have to pay another license on another platform like Mac.

51. Too complicated to learn UI. Pages and word are much easier.
52. Tutorial takes a full day to complete. Focuses on features most authors will not use in tutorial. Could not delete or mark a certain text piece as unuable. Downloaded libreoffice instead.
53. Can't watch tutorial. Does not autosave even though it says it does. Lost work, no backups.
54. Never got past reading the user manual. Those who reviewed it positively had gotten it for a discount. Program takes away from writing time. Tutorial spends too much time telling you what you cant do instead of showing you what you can. The things you can you can get for free.
55. Counterintuitive interface. Does not work for screenplays. Support unresponsive. Free alternative worked much better.
56. Paid twice to have on mac and windows. Resulting project file is not cross compatible between the two. Use word instead.
57. Frustrating to use. Just want a simple notepad program with a few more options.
58. Do not understand UI. Support unresponsive.
59. Software is great, activation code does not work. Support unresponsive. Purchasers suspects company is not active.
60. Not easy to install, activation code does not work.
61. Paid for product, activation code does not work "code is invalid". Support has not gotten back yet.
62. Difficult to use.
63. Difficult to use. Use word instead.
64. Difficult to use. Would rather have software that formats document quickly and easily and makes it easy to write.
65. Difficult to use. Use word instead.
66. Difficult to use and setup. Support is nonexistent. Can accidentally turn off a toolbar and hard to find where to turn it back on. Don't have a username and cant participate in forum.
67. Can't get program to start.

One thing that many users have mentioned up to this point was that they were recommended to the product by friends, family or acquaintances that love the product, but that they could not get it to work and that they do not understand how others can love it. At this point, the reviews for 2-stars were reaching 2017, so it is time to go to 3-star reviews sorted by most recent first.

68. Crashes on Mac, slow to restart. Accounts do not sync between phone and laptop. Have to have dropbox file and often causes file conflicts.
69. Word processor works well. Compile is bad. Interface difficult to use. Manual not helpful, too verbose at 910 pages. Told to export to Word and fix up in word. Use word instead.
70. 1.9 version of Windows is frustrating. Makes google docs look fancy. Commands are basic and do not always work. Font size and type is a problem when cutting and pasting. Forces first line to be indented in paragraphs unless you dig deep into settings. Import on PC only works for PDFs, webpage import breaks. Citations not supported. Commands are not standardized with other programs.
71. It's okay, just a fancy file manager on top of regular file manager.
72. Paid for product, activation code does not work.
73. Spell checker is poor. UI not easy to use.
74. Problem resolved.
75. Difficult to use, however think they will like it due to non-ordered chapter feature.
76. Difficult to use, not figured out how to use yet.
77. Good product idea, software locks up, menus sometimes do not show up, does not support tabs. Compile export to word does not work, it produces an rtf file which is not a true word file. Word processor is too basic compared to MS word.
78. Advertised features not available in Windows. Have to pay again on next update to get features already paid for.
79. Long tutorial. Good otherwise.
80. Ok. Needs updates.
81. Difficult to learn. Lose yourself in tutorials as they are long. Needs a quick start tutorial.
82. Product is in English and not American English, which complicates it. Learning resources require separate purchase.
83. Difficult to use. Ok.
84. Difficult to use. Requires much time before starting to use.
85. Good for splitting work into chunks.
- Moving on to 4-star reviews now. 86. Difficult to learn fully. Good otherwise.
87. Difficult to use, gave up. Don't understand why others prefer it to word.
88. Functions dont work as expected, not as user-friendly.
89. Difficult to use. Used family as help.

90. Difficult to learn everything. Word is still primary tool.
91. Difficulty installing, activating. Love the product once it worked.
92. Compile to word produces rtf file with asci characters in it. Very difficult to export, learned how to in the end.
93. Good.
94. Dictionary is bad as well as spell check. Compile does not support page formatting. Have to open in Word.
95. Difficult to learn, by programmers for programmers, confusing tutorial. Good otherwise.
96. Good, learning.
97. Spell check is lacking, editing features is lacking.
98. Wish there were more features.
99. Good.
100. Good.

Other categories with one tally omitted from needfinding chapter can be viewed below:

- Accounts on phone and laptop do not sync, dropbox file conflict corrupts: 1
- License revoked: 1
- Fills hard drive: 1
- Does not work for screenplays: 1
- Does not handle standard copy paste: 1
- UI not professional: 1
- Changing font size and type is problematic: 1
- Does not work on Chromebook: 1
- Code is region locked: 1
- Use pages instead: 1
- Use libreoffice instead: 1
- Autosave does not work: 1
- Just want simple notepad program with a few more options: 1
- Can accidentally turn off toolbar, hard to turn back on: 1
- Citations not supported well: 1
- Product is in English and not American English: 1
- Designed by programmers for programmers: 1