

How to use the Document Reader Tool?

As far as how this article came into being, we have to go back to the dynamic force that initially allowed me to bring about the shift from paper notes to cloud notes, and then start talking. Reading has been my habit for over ten years. Starting with my childhood, when I was reading *Harry Potter*, copying down the spells in it line by line, I then developed the habit of **not writing being equivalent to not having read**. In the novel, whenever I would read an inspired writing, I would also copy it down in my notebook, saving it, and then I could transfer and use it at once when writing a composition. Of course, novels rely more so on plots to be dramatic, so there are really not that many notes that I could take, and then afterwards, I started to come into contact with books involving methodologies, such as *Super Mnemonics* or *Graphing Paper Notebook for Intelligent People* and the like. Seeing the lists and flow charts, I could not help but copy them down. Leaving them on paper, even though they were available to be looked up, I would always be uneasy, suspecting that it is not my own thing. Until I started doing academic research, I then came across a large volume of teaching materials and theses.

Sometimes, one word in a book has great influence on me. The writing style and reasoning of it or the logic that is revealed behind it has a great propulsive effect on me as I construct big pictures of our field. I will then record this kind of connection or inspiration beside these trigger points; sometimes, a formula will suddenly appear in the text, and what comes before and after it is just some vague derivational reasoning. Under the rigorous, pragmatic requirements of physics, I naturally will add the key derivational steps or mathematical techniques on the side.

Unfortunately, **the void left by books will oftentimes be insufficient for me to make annotations, and I cannot at all completely memorize all of the inspirations and additions. I cannot integrate the note fragments scattered about different books and different pages and look them up. The notebook has thus deviated from text, increasing the difficulty of looking back,** until I discovered that the document reader application can overcome these difficulties. Consequently, it helps me to establish a knowledge base centered on the content in which I have been involved and have learned, and also, while I am weaving a network of knowledge, it can help me to kindle new inspirations. In actuality, the process of the transformation of reading notes is also a process of change of the positioning of reading. Besides whiling away time, reading has become an indispensable means of taking in knowledge in my academic life. And while internalizing material, I have gotten many good benefits from the two applications MarginNote 3 (abbreviated below to MN) and LiquidText

(abbreviated below to LT), hence my writing this piece. Good things must be promoted. “How to use” in the title signifies that this article does not only cover a functional introduction in the style of an instructions manual; it also integrates that actual method of use into the process of breaking down and analyzing the text. They are the set of experiences that I have gradually accumulated while using them.

This article applies to target audiences that read in a non-skimming manner or that utilize reading as a means of learning, and it is not limited to students or researchers. Rather, it should cover all readers who hope to be able to obtain their knowledge (that is, not giving the materials back to the authors after finishing reading them) from reading materials such as documents (or very thick, very useful books)/theses (or over ten sheets of paper that are very succinct and condensed)/summaries (or a systematic introduction geared toward a job/situation).

Of course, I will explain first and foremost why there are so many apps for marking documents, such that these two apps have been nominated as the forward-moving express trains carrying students on the academic road. For example, apps such as Notability, GoodNotes, and PDF Expert can import theses or teaching materials in PDF form. You can make annotations on all of them, and all of them can export. So where is the appeal of MN and LT? The answer to the question goes back to the positioning of the app. In the MN development team’s design principle and the LT development team’s development process, we can see that they are document reader apps **with text content as the carrier and the internalization of knowledge as the leading function**. “Text content as the carrier” means that they should contain the basic PDF marking functions, and “document reader” means that what is being read should possess the following basic key elements:

1. Knowledge of historical value or research value
2. A certain carrier
3. A certain method and means
4. A certain system of communicating meaning and recording

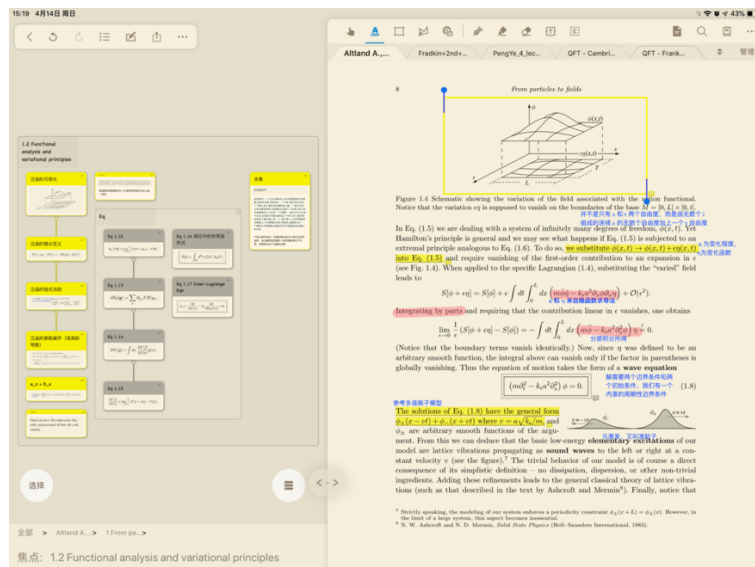
The foregoing would constitute a type of sum of knowledge; therefore, “the internalization of knowledge” would become an area in which they would differ from ordinary markings and notes apps. **They have broken down the entire system of knowledge and have crushed, polished, and remolded it to the point that they have reconstituted it into a part of their own system.** That is also to say that the development teams hope, after using the apps, to be able to let readers change other people’s things into their own things. So then, how is this kind of effect to be brought to fruition? Through their leading functions, the apps have given the users the best guidance.

Introduction to Characteristic Functions

MarginNote

Notebook

MN makes the notebook the smallest unit of the topic. It can assemble several sources (books, files, webpages, etc.) and also attach notes as a new layer to the surface of the source. To make an analogy, this is equivalent to us sticking many Post-It Notes onto a book: the book does not have any imprints on it, and the collection of Post-It Notes is our notebook. Therefore, one source can produce many notebooks, and one notebook can also be connected to many books. When it appears as the smallest unit, we can do searches within a notebook, just like when we want to find several particular Post-It Notes inside a box of a collection of Post-It Notes. In the interface of the study mode, the notebook and the text appear on the same screen, and you can close the notebook just to focus on the text, and vice versa. In this way, we can completely immerse ourselves in reading the text, and we can also see how the knowledge structure of each excerpt that has been cut and pasted links up before it was written. In addition, we can focus on the establishment and arrangement of the system of knowledge after we have finished reading.



Basic interface of MarginNote 3

Text Contrast

One should be able to say that text contrast is an indispensable function for document reader apps, especially when one encounters a relatively wordy author cross-referencing a previously mentioned formula several times, and the formula is all labels. The emergence of the contrast function can be said to be a godsend. Also, for example, when we encounter authors whose way of thinking is rather divergent or systematic, let's say that although the content in this part is just Chapter 2, we have had a more in-depth discussion in Chapter 7, and then in Chapter 9 we have even introduced the applications of theories. For more supplements, the reader can of his or her own accord flip to the second line of the bibliography. If he or she is reading from a paper book, then he or she can only use his or her fingers as bookmarks, relying on short-term memory to make a contrast between different pages and books or looking for a sheet of paper to copy down the repeated material several times.

远远小于波尔半径的时候电子自主等，这显然是个合理的

$$c_{k\sigma}^\dagger = \begin{cases} a_{k\sigma}^\dagger, & k > k_F, \\ a_{k\sigma}, & k \leq k_F, \end{cases} \quad c_{k\sigma} = \begin{cases} a_{k\sigma}, & k > k_F, \\ a_{k\sigma}^\dagger, & k \leq k_F. \end{cases} \quad (2.21)$$

It is then a straightforward matter to verify that $c_{k\sigma}|\Omega\rangle = 0$, and that the canonical commutation relations are preserved.

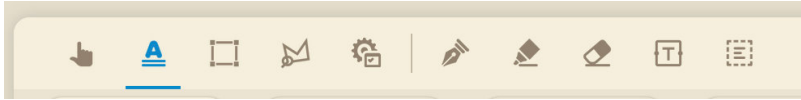
The Hamiltonian defined through Eq. (2.18) and (2.19), represented in terms of the operator algebra (2.21) and the vacuum (2.20), forms the basis of the theory of interactions in highly mobile electron compounds. The investigation of the role of Coulomb interactions in such systems will provide a useful arena to apply the methods of quantum field theory formulated in subsequent chapters. Following our classification of electron systems, let us now turn our attention to a complementary class of materials where the lattice potential presents a strong perturbation on the conduction electrons. In such situations, realized, for example, in transition metal oxides, a description based on "almost localized" electron states will be used to represent the Hamiltonian (2.17).

A situation of multiple formulas

It is plain to see that this is the primary difficulty in overcoming the promotion of going paperless. While absorbing and digesting, we also hope that knowledge will be integrated into the same interface using our own comprehension, instead of being completely confined to the author's writing order. In a simple situation, if it is just a comparison within the range of the end and the beginning of the pages before and after, you can switch from page-flipping reading to vertical reading. As for a complex situation, if it involves different pages and books, then you can use a multi-document split view in MN. It supports up to three same-screen comparisons on a page of your choice within the same notebook, and you can switch from the split view method to vertical or horizontal. Horizontal is more often used for page comparisons. Even if only three pages plus a notebook are on a 12.9-inch screen, it can still appear exhausting. When actually using it, I suggest that you not be overly greedy. Vertical is thus more often used to make comparisons, and formulas being contrasted or paragraphs being compared are fit for use.

Taking Excerpts and Making Annotations

As I said at the beginning of this article, everything leaves behind a legacy, and the legacy that a book that you have read leaves behind is the annotations that you have made. Even though taking excerpts and making annotations seems to be a fundamental function, compared to the common PDF marking apps that we have mentioned, MN does it more thoroughly.



The marking tool in MN

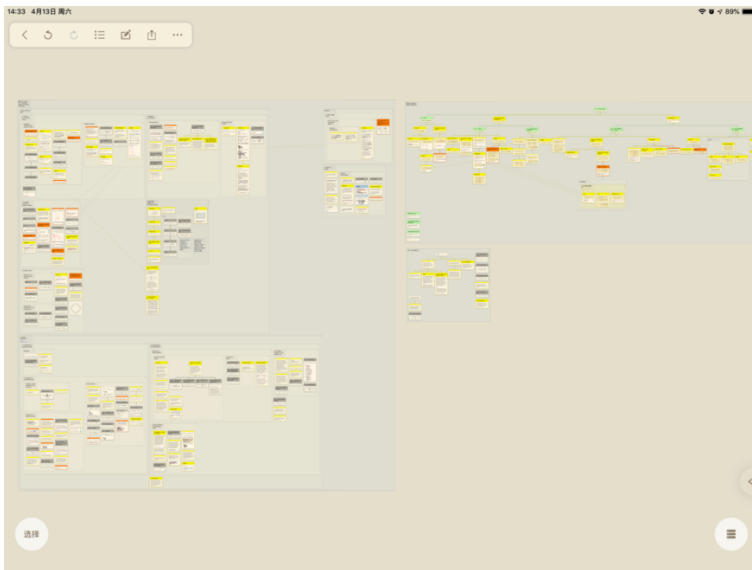
When we read an exquisite, enthralling passage, we can utilize Apple Pencil (abbreviated below to AP) or our fingers to annotate this passage. The marking methods have been split out into two types in MN. One type is taking excerpts, and the other type is making annotations. The former will automatically generate excerpt cards in the notebook, and the latter will then leave marks when you are exporting.

The excerpt tool has the three options of text selections (split out into words or characters as units), rectangular selections, and free selections. The text selections will generate cards by the OCR (optical character recognition) method, and the selection tool will then be an image. OCR means two things: if the recognized text is a mathematical formula, then it cannot be displayed in the original mathematical form. If it is pure text, then it will remove the text style and allow the user to edit and revise it. The selection is equipped with the four customary background colors, as well as the circle or paint frame selection modes.

The annotation tools consist of a pen, highlighter, and text box. Among them, the pen and the highlighter are both equipped with six types of incremental diameters, five customary colors, whether or not to pressurize, whether or not to automatically make a straight line, and colors to choose from in the color picker, which lets your friends who want to draw a rainbow to be able to start performing immediately. In the text, you can then modify the English–language font, the font size, the color of the letters, the background color, and bold/italicize/underline.

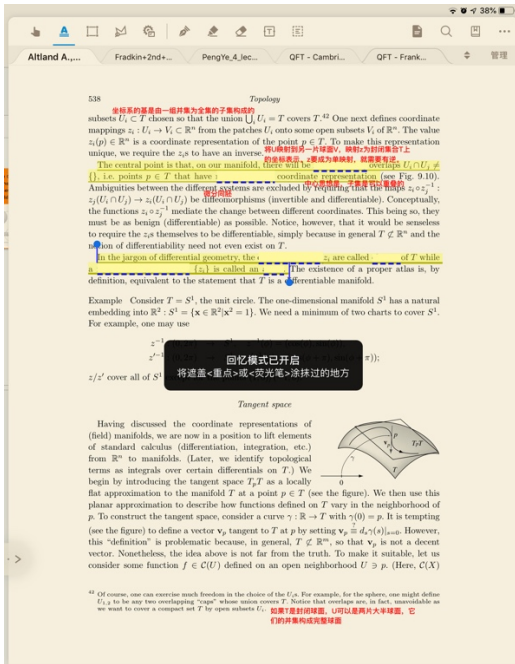
As far as a function is concerned, the more options you have to choose from, the higher the flexibility is, but also the greater the extent of difficulty is. This is obviously the case because when we are using it, we oftentimes do not need so many choices, and we are focused on meaningful and customary options. Just like the colorcode that I have previously mentioned, it is a group of particular target colors. Even if a color picker is provided, **a set of systematic reading methods also does not advocate for everyone to increase the number of colors on the screen to more than five. Only within this upper limit can we swiftly match up the color and the meaning; otherwise it will seem**

full of colors, but when using it, it will be easy to get disoriented. When reviewing, browsing, and sifting through notes, you do not need to invoke the filter. You only need to take a glance at the page layout to know what part deserves attention. Precisely this is the reasonable colorcode principle.



Reasonable colorcode

As for an excerpt, we can “emphasize” it. In a standard format PDF, excerpts automatically use words as their units, and we can click or drag to select the main points. They will be marked with a dotted blue underline. In the photocopy version of PDF, it will be changed into the selection method. In the “recall mode”, the main point will be colored, making it easy to implement the method of memory by association that fills in the blanks based on the context.



Recall mode after emphasizing

The excerpt cards generated automatically in the notebook support typing, writing by hand, voice, and inserting images. The annotation paragraphs split by a dividing line can be dragged to adjust the order or deleted entirely. On every card, you can change the background color or add a tag, doing filtering and searches that are convenient for categorization in two dimensions, and it supports four customary background colors, which is very convenient for quickly marking a passage. About the use of tags, actually, it is part of the systematic learning method, limited by space. I will not expand on it here, but I still can briefly introduce the principle of tag setup. The setup of tags is for use with the filter. Its existence corresponds to users' custom filtering rules; therefore, **for the already-existing filtering rules, you do not need to set up tags again.** For example, since the colors related to meaning (the yellow type that marks the main points) or the thematic categorizations that have been partitioned into chapters are self-created filtering rules, then all you have to do is add again what you can use. Adding labels subconsciously according to thematic categorizations and every card will add a lot of unnecessary work. **Tags and cards to which tags have been added all have to be targeted: less is more.**

Regarding the voice function, in actuality, there are relatively few situations in which I use it. On the one hand, it is limited by places of study and work, and on the other hand, it is determined by factors of voice itself: voice indeed can conveniently and quickly input information, but as far as extracting information, it has some shortcomings. And as for content that needs to be looked back upon frequently like studies, even if I have done voice input, I still will convert them to writing, so only in particular circumstances will I use this kind of method whose processing cost is seemingly high.

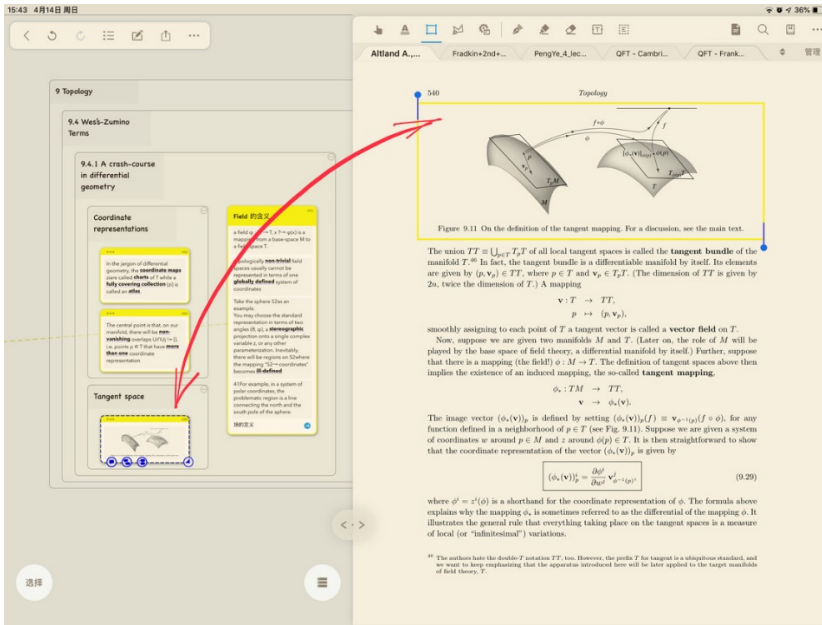
Excerpt cards are related to the original text. Clicking on a card, you can quickly link back up to the original text. Actually, they can serve as a bookmark, so I suggest quite strongly adding titles to cards for locations to which you must skip back repeatedly, which is equivalent to putting an obvious sign on a location. About the methods of using them as bookmarks and indexes, I will introduce them in *Scenarios of Actual Use* later in this article.

Mindmap

Automatically generating excerpt cards is just a small matter. You've read through the document, but the annotations are still scattered about the fragments of every part just like before. If you cannot arrange them effectively, the so-called markings will become quite simply a mess. On second thought, with the MN, I ought to guide the users to study effectively. That is in fact my main issue. So it has brought out a function that is a delight for everyone: the cards generate mindmaps. There are three methods by which you can automatically insert the cards that have been generated into the mindmaps:

1. Group by document table of contents
2. Group by document
3. After choosing a node or floating

In the first situation, if the card belongs to some small section, it will be subordinate to the card with the title of the small section. However, you need to pay attention to the fact that mindmaps for which a table of contents and outline have been automatically generated are only used in the global mode. If focus mode has been selected (that is, you are only concerning yourself with one particular card and its subsections), the card will no longer connect automatically using the outline. This kind of situation often arises when you are bringing multiple books into the notebook and are only focusing on one particular book.



An automatically generated mindmap

The second situation is when you take all of the cards that have been generated and toss them into the frame of the same book.

The third situation is to link up the card to the back end of the selected card. If it is not selected, it will be listed separately.

Integrating the notes into the mindmap actually by technological means gets rid of repetitive, redundant work that wastes time before you have gone paperless, concentrating our attention on the integration of knowledge. Originally they were thoughts scattered about in the text, but then they were summed up and concentrated by MN into the notebook. However, **adjusting the structure of the logic and changing the framework of the knowledge** still requires us to complete it manually. Only once we have undergone this process, marinated on each point, and re-expressed it in our own words, which is the process of laying out and linking up the pieces of knowledge anew, only then can the knowledge be internalized as a part of us. The completion of the internalization means that we can at any time scoop out what we have learned from within our brains, and it is not trapped in the entity of some book. In order to help users handle knowledge better, there are several restructuring methods for the cards in the notebook:

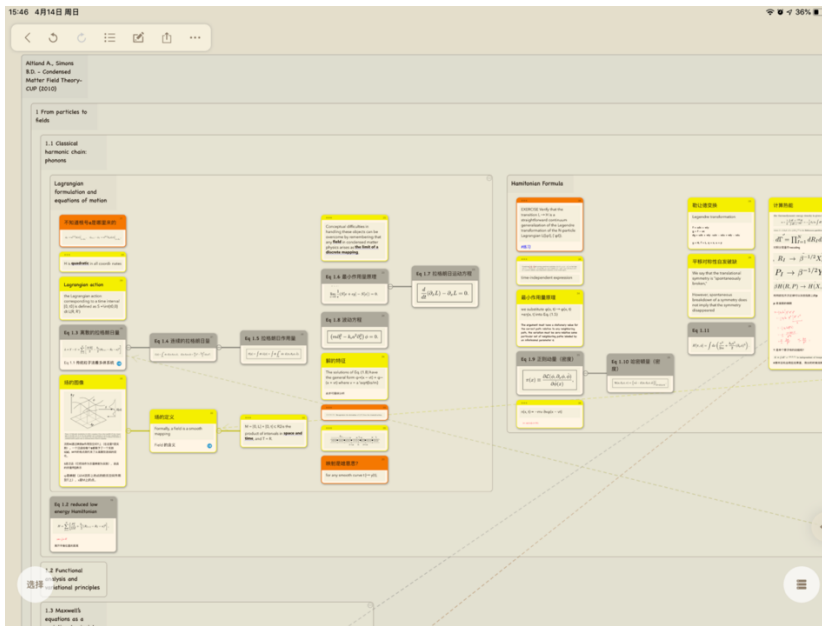
- **Merge into:** you can merge several cards that you have chosen into one card, and you can adjust the order. This is used for describing notes on the same subject being concentrated into the same location, or it is used to convey a seamless connection and the conclusion thereof.

- **Become child node:** dragging the card onto another card, you can link the two up. This is used for altering a subordinate relationship.
- **Float:** in the tree view, drag a card into the place where the words “Float” are written in the middle of the notebook, and in the frame view, drag the card into the outermost layer of the frame (in global). This is used to eliminate a subordinate relationship or to generate a new branch source.
- **Regroup:** click and hold the box to choose several cards and select regroup. The cards will be displayed in a frame, and they will be used to establish a big node that possesses a complex logic relationship (parallel or subordinate). As an example, A and B are in a parallel relationship. They both belong to C, but A and B can draw conclusion D. So then we should use a frame to put A and B in C, and then make D subordinate to C. Of course, this is only an example of my own way of doing it. It is not correct, but it approximates an understanding of habits.
- **Link:** After picking out a card, select link on the menu. You can connect a card to another card that is very far away and display it on the card. This is used for connective relationships, and it does not change the generative logic amid the knowledge. There are three methods of generating links: respectively, two-way association, which means that each of the two cards that have been linked up appears in the transfer that indicates the other one; one-way link, which refers namely to a transfer that skips over to another card appearing on a card that indicates a link, and such a result can also be obtained by directly copying the link on the card and pasting it onto the target card; and copying the text, which refers to copying the card content but not using any transfer.

These several options can change the original directory structure very well and translate the knowledge into your own thing. No matter from where to where, it will be clear at a glance. Not only does it clearly bring to fruition the visualization of the knowledge relationship, it also helps us to comb the key points of the text, establishing the entire knowledge structure.

Apart from that, we can also change the display mode of the mindmap. Selecting branch styles, we can change the display to a framework or tree forms. Typically speaking, **framework are collections, and tree forms are connections**. We can select part of the content and display it in the form of a tree form and keep the framework structure of the other parts. We can display content connected in an orderly fashion like a directory, in tree form. It helps us to get a panoramic view of and expand the knowledge structure, and frameworks are thus the adding and stacking of details, so as to impel us to strengthen our points of knowledge. In studying

fundamental field, a grasp of looking downward upward at the big picture of the subject, has a great effect on development and advancement. In other categories of learning, grasping the structure can allow us, when we have omitted some part of knowledge, to make new derivations from the linkage relationships of its other parts. Just like branches extending outward, the structure is a thick and sturdy branch, and points of knowledge are scintillating leaf buds.



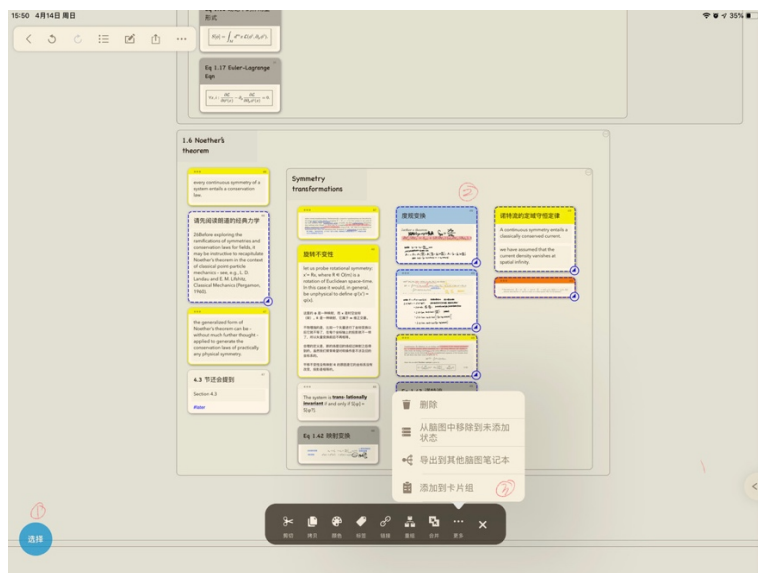
Different display modes of mindmaps

Flashcards

Flashcards are another forte of MN. In reality, the highlights of MN lie in the fact that knowledge is integrated from the process of **input – processing – output** into the same interface. Users can complete an entire process from one place. A good analogy would be to say that after scooping a fish out of a pond, shaving the scales, washing it clean, pickling it, cooking it, loading it onto a plate, and serving it can all be complete inside the kitchen. This is the area in which MN shows the most consideration. Flashcards correspond to the hyphen between processing and output; in the learning process, it exists as a seamless action. After establishing the entire knowledge framework, we still need to present the passage that is the most effective amid it, in order to deal with the output scenario under the particular circumstances.

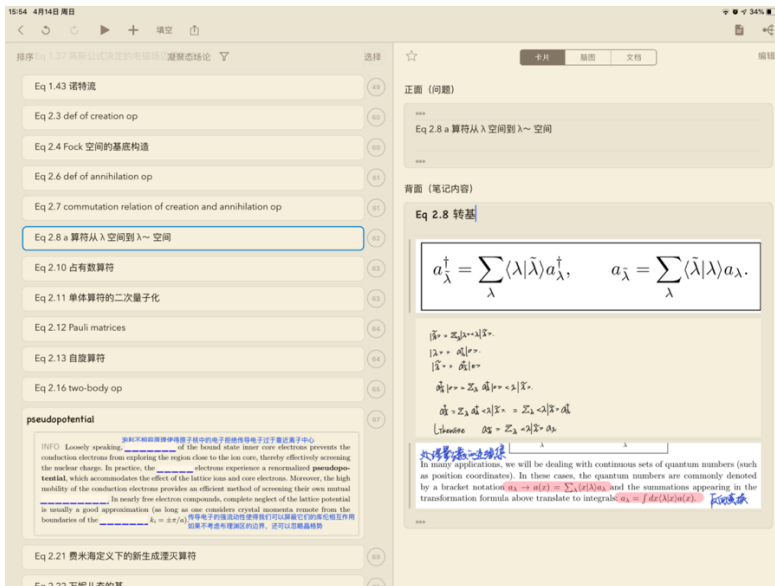
The card deck first can come from different notebooks and different books. This logic is very simple; **it is different from using projects or topics as units when studying**. The memory output usually is geared toward a particular scenario. Therefore, **the card deck is based on scenarios as**

units, such as the judicial exam or final test in some academic subject in some month. We can add it into the notebook in a study mode or directly add it in review mode. In the notebook, open multiple selection mode: click on “select” or hold down and drag to open the frame selection mode (in reality, it includes the multiple selection of the frame selection). You can add cards in batches to the **card deck** by making a selection or by clicking. If you click on the plus sign in review mode, the card filter will appear, and you can add a **card deck** based on the color or tag. The card that has been added will be arranged on the left side in the form of the title, and we can also change its arrangement order to time produced, deadline, or text location.



Making a multiple selection and adding it to a **card deck** in the notebook

In the **card deck**, we can alter the questions on the cards without affecting the notes in the notebook, so when producing flashcards, we can with one alteration produce the principle of knowledge cards, not displaying it using the method of thematic synopsis, but rather, using customary expressions of the test subject as guidance for modifying the questions. In the default situation, the questions on the cards are the titles when we are producing the cards, or the first notes when there is no title. The answers to the notes are thus all of the annotations under these notes. If we have consolidated many of the notes when producing the cards, the answers will thus be displayed as the collection of these annotations. If we have used the highlight mode, the questions will be the choices whose main points have been dug out, and the answers will thus appear in bold among the choices.



Card deck in review mode

Click to start reviewing, and then a single question card will appear. We can quickly scroll to browse the knowledge to be memorized, and we can also click on the card to check the answer to the question. In addition, we can select the brain map or the text on the answer side (if we click on the study mode symbol, we can even check the text beyond the notes on that page). These are all methods that help us to memorize with prompts from the structure or original text. According to these prompts, the answers that we recall have tentacles, are adhesive, and are easier to retain after the scour of time. Within the card, MN has set up the quick tag form, that is, the star and the degree of difficulty. We can use the stars to particularly mark knowledge that needs to be memorized repeatedly or use the “easy” among the degrees of difficulty to mark simple knowledge, which is convenient for remembering this kind of card in particular scenarios.



Flashcards on which you can quickly add a star

There is also another very cute but not very practical function that I can introduce here. In the question interface, they have set up the read-aloud option, which is used to play the question and the answer. I guess that the developers wanted for everyone to get a hold of fragments of time during their commute. Lamentably, the realized effect of this original intention is not strong enough; after the voice plays the question, it will next read aloud the answer without any pause. Moreover, despite the fact that it can identify content of different languages mixed together, the play effect is even worse than Siri, haha. Of course, as far as users who are not so harsh about this requirement are concerned, I believe that there is room for it to be used.

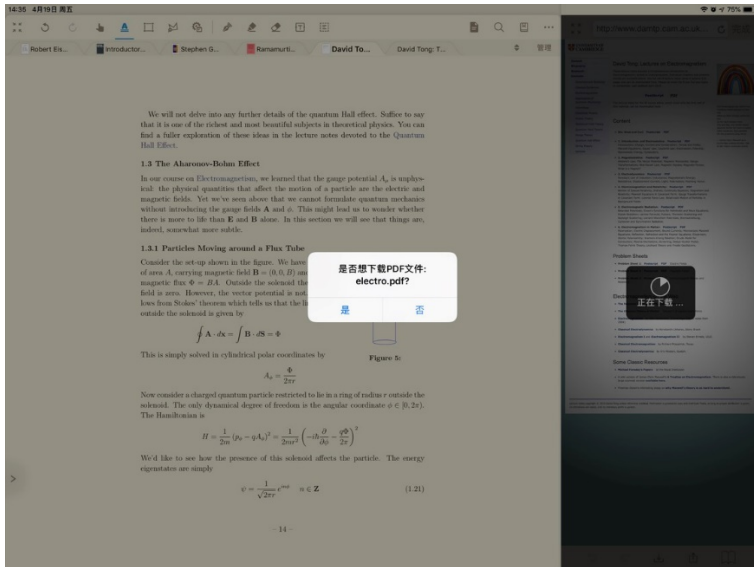
Global Search

Compared to ordinary reader apps, in which we can only do searches on a single document, MN does document content searches with the notebook as the scope of search. The users can search up the same keyword in the introductions of different sources. This is convenient for us when we cannot get an answer in one place. After we have gotten more detailed supplementation from other sources and have understood it clearly, we can also click on the arrow in the lower left corner of the text to return to the original location. Apart from searching through the text, the notes in the mindmap can also be searched. The scope of search is all of the notebook, and we can also add tag and color filter rules.

The screenshot displays a digital notebook interface. On the left, a document titled "Solid quantization" is open, showing a diagram of a polymer chain and a section titled "Su-Schrieffer-Heeger model of a conducting polymer chain". The text discusses the Su-Schrieffer-Heeger model and includes a mathematical equation for the Hamiltonian:
$$\hat{H} = -\sum_{n=1}^{N-1} [t_1 c_n^\dagger c_{n+1} + h.c.] + \sum_{n=1}^N \frac{k_2}{2} (n_{n+1} - n_n)^2,$$
 where c_n and n_n are operators for electrons and sites, respectively. On the right, a search results panel is visible, showing a snippet from a document titled "Interaction effects in the..." with a highlighted section "Although the..." and a search result for "probability theory will...".

Global Multiple Source Search

Apart from this, if you would like to read up on the conceptual ambiguities of particular content mentioned in the document, you can directly invoke the built-in browser. Choose a target object and click on "research". The browser will pop out and directly present search results. One reason for which we use the built-in browser without using other browser apps lies in the fact that the pages opened in the built-in browser can be directly imported into the current notebook. You can also likewise use the PDF documents that the browser opens. You can even import electronic documents that contain hyperlinks after directly clicking on the link and skipping over. The browser can also be selected as the default in settings on the main page.



Using the built-in browser to import PDF documents

Importing and Exporting

MN supports imported documents, including Epub, PDF (including existing annotations in other note apps), webpages, videos, mindmanager files, and notes from Evernote (however, the webpage typesetting that is cut in Evernote is pretty awful, not as good as importing directly from the browser).

The exporting that it supports includes flattened notes/mindmaps/note list PDFs, mindmaps to MindManager/iThoughts, Evernote, OmniOutliner, Anki, DEVONthink(macOS), and MS Word. Besides, if you use the frame selection tool in the text, you can share selections in the form of images in the pop-up menu and preserve the highlights and the ink marks in the selection.

Actual Use Scenarios

First off, I'd like to explain that just because some apps lack other apps' feature functions, that does not mean at all that we can believe that this is their deficiency. At the most, we can only state that the two apps' targetedness or leading features are different. A better situation of use should be to put an app's functions to maximum use with regard to the current app resources. Of course, here, fundamentally, we can provide effective usage feedback in order to boost our use experience. But arguing over which of these two apps is superior and inferior is obviously meaningless. Below I shall provide my personal experiential lessons from actually using both apps as a reference for everyone, giving you my reasoning for which I have used them, and there is definitely not the only one answer.

As far as I'm concerned, MN is a book-reading tool. Since the process is clear, and the breakdown is on point, as it relates to a complete system that requires self-construction, I usually will use MN to read. The so-called complete system refers to the fact that it needs me to do the digestion and to rebuild it as my own system. The so-called self-construction is for distinguishing reading materials used in class, such as textbooks. This is because breaking down the system requires one's own knowledge, and it also requires a lot of time. With regard to going to class, I cannot do such systematic work.

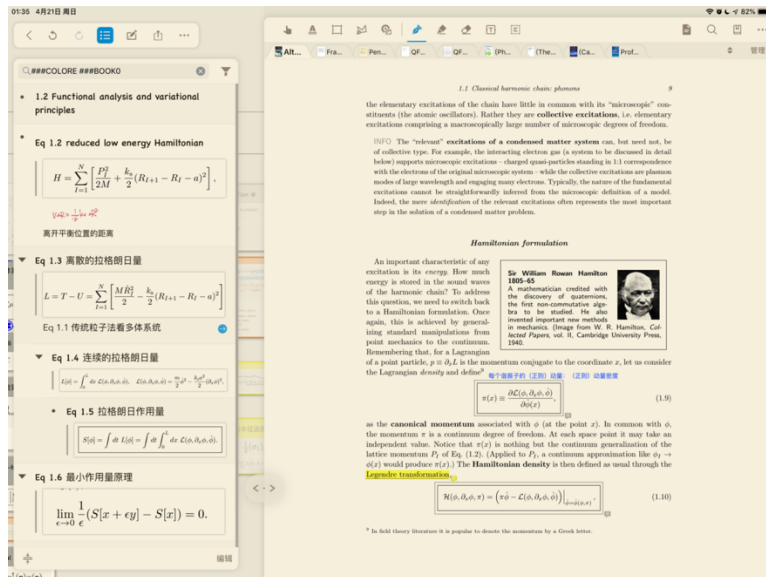
After importing a thick book that needs to be digested, I'll typically carry it out based on the chapters, and I will generally not pause along the way. As far as a system is concerned, its completeness will lead to its continuity. If the amount of time that you pause along the way is too long, then when resetting the learning behaviors, you will often need to review once again, which will lower the efficiency as it relates to the process of self-study. Using a directory to skip over to the corresponding chapter, I usually will use a blue pen or a text box to make annotations, corresponding to the colorcode that stand for thoughts. As regards the key parts, that need to be arranged into a mindmap, I will use the selection tools to take extracts in yellow or orange, and I will immediately arrange the relationship between the cards in question and the previous cards.

If it is regarding the definitions about which I have doubts that I have encountered when reading, first use a systematic dictionary, and then use the global searches to look up the explanation of the definition in the other documents on the same topic. If in such a situation I still do not understand, then perform web searches again selectively, and import the results using drag & drop into the notebook to automatically generate cards or directly import the webpage to make several annotations.

If I encounter formulas when reading, I often use a single color or tag to mark and write clearly the title, and then I'll do a synchronous look-up in the outline view on the left side. This is also a kind of extremely effective comparison method. It utilizes the outline or the searches to generate comparisons with particular filter objects and the current texts. As for the customary target objects, they are all fit for establishing this kind of index. They can be integrated into the same floating window. They appear on the same screen with the text and the notebook, and they have added a dimension to the comparison.

After finishing reading, I will still once again open the notebook to look up the mindmap, and I rearrange it to confirm the consistency and the tension of the logic. Afterward, I will import the

content that I need to memorize onto the card deck for the sake of memorization while commuting or using them as a reference.



Utilizing colorcode and outlines to implement filters

(By Fabrina) View full article at: <https://www.marginnote.com/press/marginnote-liquidtext>