



Knovel Mobile App Ideation

Research Report

January 19, 2018

Version 1.3

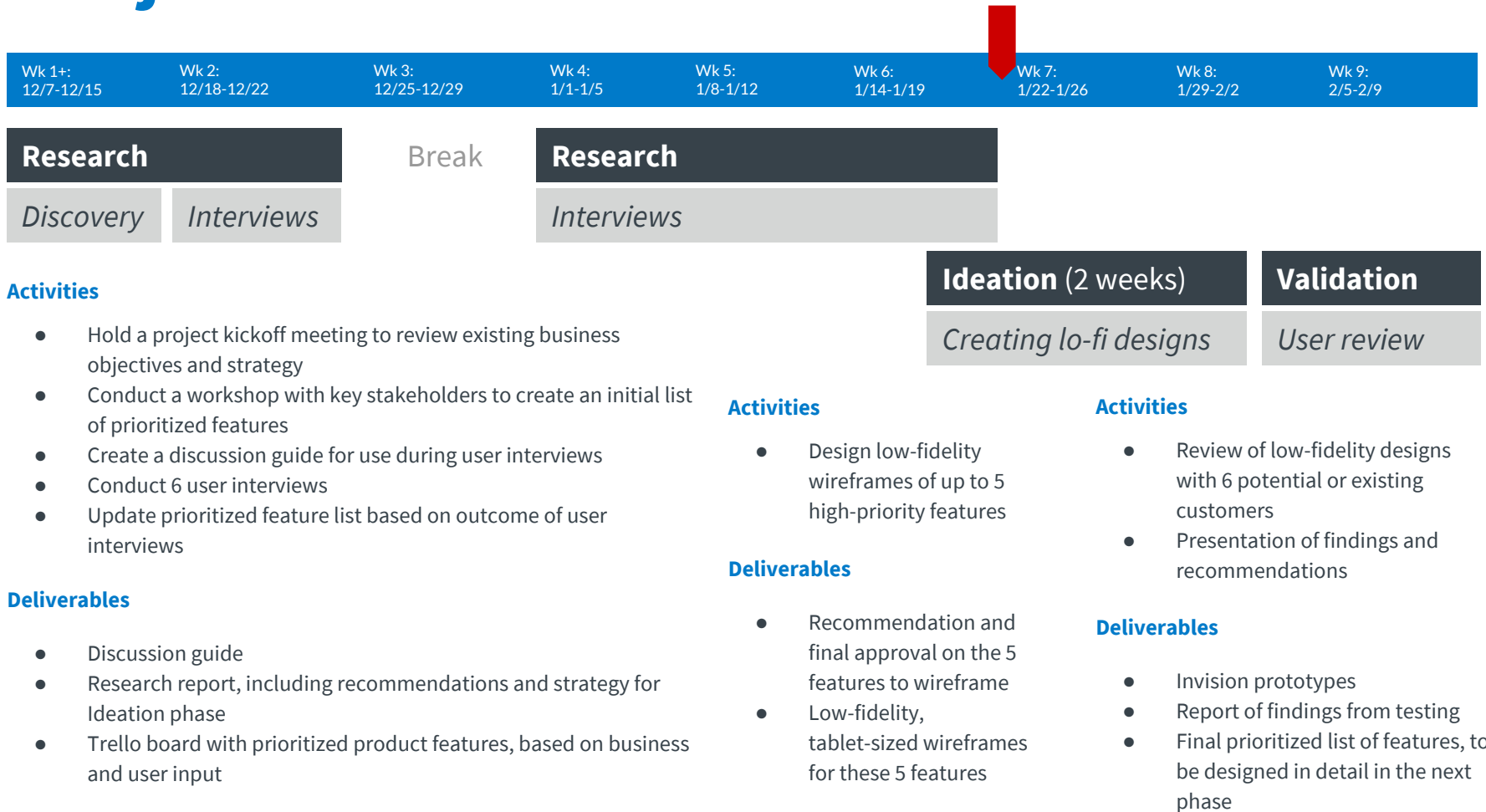
Agenda

- Project Recap
- Summary of Findings
- Detailed Findings
- Next Steps
 - List of Features to Wireframe
- Appendix
 - Interview Notes



Project Recap

Project Plan





Summary of Findings

Stakeholder Priorities

So far, these are the high-priority features we've identified for the next version of the My Knovel ToGo app:

- **Tools & Interactivity**
 - Add interactive tables and graphs
 - Link to interactive tables and graphs from titles' Table of Contents
 - Material Property Search tool
- **Search**
 - Search titles' full text and description
 - Interactive tables and graphs in search results
 - Autosuggest, autocomplete, and fuzzy searching to decrease user effort
- **Sync Desktop & Mobile**
 - Save place in title across platforms
 - Activities tracked in My Knovel should reflect both platforms
- **Controls while Reading**
 - Search full text, not only current chapter
 - Quick access to Table of Contents
 - Reflow content and add settings to make titles easier to read
 - Move through entire book, not just within chapter
- **My Saved Items / Collaboration**
 - Save and share searches, titles, chapters of titles, tables, or graphs
 - Organize saved items into folders
- **Onboarding / Access & Authentication**
 - Make sure all Knovel users can access the app, regardless of subscription type
 - Register from mobile app

About the Interview Process

In this set of interviews, we were able to speak with three My Knovel ToGo users:

- **David Angeles**, grad student at CETYS Universidad, studying mechanical engineering, with a focus on aerospace engineering
- **Mohammed Shamaa**, recent graduate of the Master's in Petroleum Engineering program at Texas A&M, and technical engineer at Hilti
- **Soujanna Sarkar**, Senior Manager at Intel, specializing in design of modem hardware
- **David Peraino**, refining engineer at Marathon Petroleum
- **Viet Le**, electrical engineer with the U.S. Army Corps of Engineers
- **Srinivasan (Sri) K.R.**, from Eaton Aerospace, specializing in the design and manufacture of non-metallic parts for hydraulics systems

We spoke with each of the users for about 60 minutes, with a focus on discussing:

- How and why they use Knovel or My Knovel ToGo
- How they search within Knovel for the specific resources they need
- How, if at all, they use the non-title content types within Knovel (tables, graphs, equations, definitions, and KDA materials)
- What resources they gather from other sources, or create themselves, besides the information they get from Knovel
- How they read titles on the mobile app, and how that compares to competing apps
- How they take notes on what they read
- How they share their notes or findings from Knovel with their colleagues

Low-Priority Features for Users

Users **did not** agree with us that the following items were high priority:

- **Tools & Interactivity**
 - Material Property Search tool
- **Search**
 - Interactive tables and graphs in search results
- **Onboarding / Access & Authentication**
 - Make sure all Knovel users know how to access the app, regardless of subscription type
 - Register from mobile app

Do you ever use interactive tables, graphs, or equations from Knovel?

“Not really graphs or tables, we use process simulators [to gather data].”

“Not quite, no, I haven’t.”

“I have not had the need to use that data...pretty much just reading is what I do.”

All six users we interviewed happened to be regular users of the My Knovel ToGo app, so by definition, they had figured out how to create a Knovel account and login via the app.

New High-Priority Features from Users

Features we haven't discussed, that users said were high priority:

- **Controls while Reading**
 - Disable device locking while reading
- **Search**
 - More data with each search result to help indicate relevance
- **Highlights & Notes**
 - Highlight text in titles, optionally add associated text notes
 - Share highlights / notes outside of titles
- **Recommendations / Browse**
 - Recommend titles based on history
 - List titles related to currently-open title
 - Lists of newest or most popular titles
 - Curated lists of titles from account managers or industry experts
- **Sync Desktop & Mobile**
 - Automatically download titles saved to mobile
- **My Saved Items / Collaboration**
 - Share folders as well as individual items
 - Use platform defaults for sharing
- **Tools and Interactivity**
 - Link to interactive tables and graphs from their equivalent inside a title

Low-Priority Features from Users

Features that users said were low priority, but are worth mentioning:

- **Controls while Reading**
 - Swipe left and right to switch pages, rather than scroll up and down
 - Internal hyperlinks within books, to other sections or figures (e.g., “as shown in [Figure 18.2...](#)”)
- **More content types**
 - Summaries of titles (text or audio)
 - Audiobooks
 - Podcasts
 - Explainer videos
- **Sharing**
 - See a feed of what your colleagues or others in your organization are reading, saving, and sharing
 - Access an organization-level shared folder in My Knovel by default
- **My Resources view**
 - Allow users to put titles into groups or folders
 - Allow users to sort by title, author, etc.
 - Allow users to customize view:
 - Cover, title, author (*current*)
 - Covers only
 - Title and author only
- **Onboarding**
 - Contextual help

Updated Highest-Priority Feature List

- **Controls while Reading**

- Disable device locking while reading
- Search full text, not only current chapter
- Quick access to Table of Contents
- Reflow content and add settings to make titles easier to read
- Move through entire book, not just current chapter

- **Search**

- Search titles' full text and description
- More data on each result to indicate relevance
- Autosuggest, autocomplete, and fuzzy searching to decrease user effort

- **Highlights & Notes**

- Highlight text in titles, optionally add associated text notes
- Share highlights / notes outside of titles

- **Recommendations / Browse**

- Recommend titles based on history
- List titles related to currently-open title
- Lists of newest or most popular titles
- Curated lists of titles from account managers or industry experts

- **Sync Desktop & Mobile**

- Save place in title across platforms
- Activities tracked in My Knovel should reflect both platforms
- Automatically download titles saved to mobile

- **My Saved Items / Collaboration**

- Save searches, titles, chapters, tables, and graphs
- Organize saved items into folders
- Share folders as well as individual items
- Use platform defaults for sharing

- **Tools and Interactivity**

- Add interactive tables and graphs from titles
- Link to interactive tables and graphs from titles' Table of Contents
- Link to interactive tables and graphs from their equivalent inside a title

And while it didn't affect the users we spoke to, because it has such a big effect on people becoming users at all:

- **Onboarding / Access & Authentication**

- Make sure all Knovel users know how to access the app, regardless of subscription type

List of Features/Flows to Wireframe

So this research has given us an idea of what users think is important. But how do we decide which features to wireframe and get even more detailed feedback on?

The best candidates are features that:

- are high priority for our users
- but that we can't design based on what we know now, without making a lot of assumptions

For instance, wireframing and testing “logging in with Touch ID” would **fail** on both counts:

- Users said that was a very low priority
- How Touch ID works is already very well defined by Apple, so there's no need to explore design possibilities

Our recommendations for the five features to wireframe in the next phase, and then test, are:

- **Executing a search**
 - Are the extra features of search helpful? What data can we add to search results to best show relevance?
- **Browsing implicitly recommended, and automatically curated, titles**
 - These are the easier recommendation types to build, but are they valuable enough to users?
- **Taking a note on a title, then saving it to My Knovel**
 - Will it make sense to separate notes from books?
- **New login/create account flow**
 - Will this make it easier for non-mobile users to use the app for the first time?
- ??? Reading experience?



Detailed Findings

Controls while Reading

High priority for stakeholders, **high** for users we spoke to

Users said that because Knovel provides titles as PDFs, they can often be difficult to read. One user said that to not zoom in and out, they read with their device in landscape, but that means more scrolling.

Again, users cited consumer e-readers like Kindle or Nook, which use reflowable content, as the model for a comfortable reading experience.

→ **Feature:** Emulate display settings in consumer e-book readers:

- Change to one of a few curated fonts
- Adjust font size
- Adjust line height/leading
- Adjust line width/page margins (on tablet)
- Adjust screen brightness
- Change to one of a few curated color schemes
- Toggle text justification
- Lock app (not device) in portrait or landscape

Multiple users said one of their biggest pet peeves in the app is when their device locks after idling on a page in a book for several minutes.

→ **Feature:** By default, disable auto-lock while a title is open. Allow users to toggle this in app settings.

Other e-readers allow users to search the entire title at once, or move through the entire title at once.

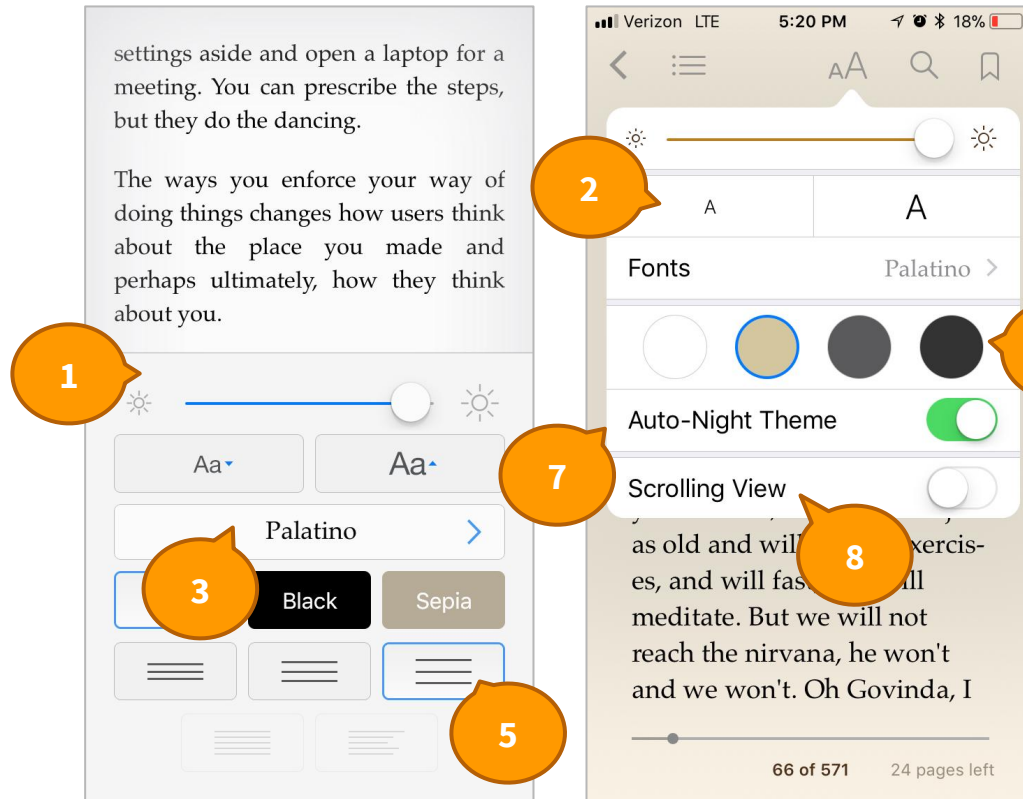
→ **Feature:** Searching within a title should search the entire title, not only the current chapter.

→ **Feature:** Users should be able to continue past the end of the current chapter into the next chapter.

One user suggested titles could use internal links to help readers jump to a referenced section or figure.

→ **Feature:** Link to figures or sections when mentioned in the text of a title.

Display Settings (on Kindle and iBooks for iPhone)



Both Kindle and iBooks support:

- Changing the screen brightness **(1)**
- Increasing or decreasing the font size, in steps **(2)**
- Changing the font **(3)**
- Changing the color scheme **(4)**

Adjusting line length is available only on tablet or desktop. Kindle also supports changing line height **(5)**, text justification **(6)**, disabling rotation lock on the app level (not pictured).

iBooks has its own unique options:

- Switch automatically to the dark color scheme after sunset **(7)**
- Allow the user to move through the book like a web page, vertically, rather than horizontally, like a print book **(8)**

Search

High priority for stakeholders, **high** for users we spoke to

Most users we spoke to said they would find titles to read on the Knovel app on the desktop, or through organizational search tools connected to Knovel and multiple other databases.

While they don't search often on mobile, these users said they would, if only it had more useful features.

We recommend going forward with the highest-priority search features we've already identified:

→ **Feature:** Support autocomplete and auto-suggest to shorten time spent entering queries.

→ **Feature:** Autocorrect misspelled or misspunctuated queries.

→ **Feature:** Include the user's recent searches in auto-suggestions.

One user said he'll often start searching for titles about a given concept. But the next step is to ignore the titles that discuss applying it to other industries.

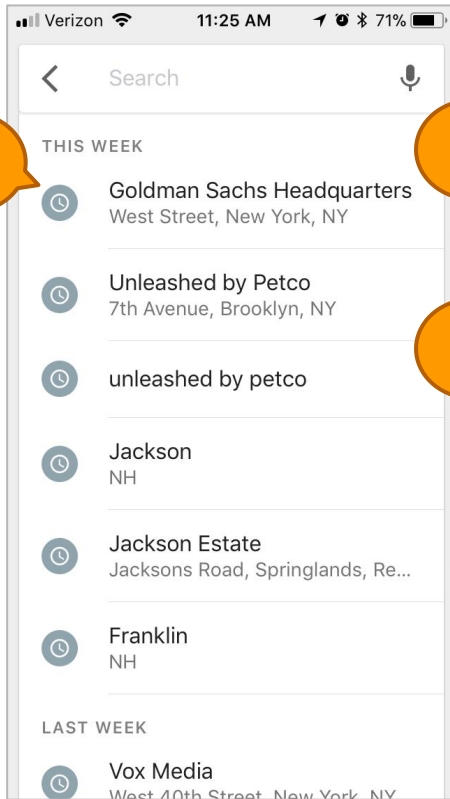
→ **Feature:** Allow users to filter search results by subject area, like browsing on desktop, or by industry.

One user mentioned that scientific journals use "impact factor" as a metric for their relevance, and perhaps Knovel could do something similar.

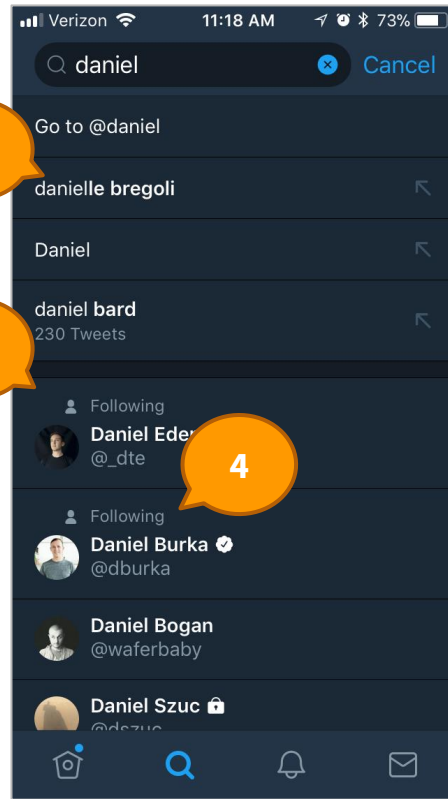
External data, like star ratings from Amazon or Goodreads, is one option. A few users said they compare titles' Amazon ratings manually, if available. Metrics like how many users have read or saved each title, may be more reliably available.

→ **Feature:** Use aggregated user data to indicate popularity of titles.

Autocomplete & Auto-Suggest



Google Maps for iPhone



Twitter for iPhone

On Google Maps, like many other apps, starting a search shows your most recent searches, for easy access **(1)**.

Twitter search shows a good example of autocomplete vs. auto-suggest. Autocomplete is trying to finish the user's search query **(2)**. Auto-suggest means returning likely results without the user executing their search **(3)**.

Twitter also prioritizes auto-suggest results for accounts the user is currently following **(4)**. In Knovel's case, we could prioritize titles the user has saved or read before.

More Relevant Data in Search Results

The screenshot shows the GitHub search results for 'sketch plugin'. On the left, there are filters for Repositories (1K), Code (389K), Commits (1K), Issues (7K), Wikis (762), Users (8), and Languages (JavaScript: 486, Ruby: 53, Objective-C: 30, HTML: 20, Java: 13). The main content area shows the top result, 'andrewfiorillo/sketch-palettes', which is a JavaScript plugin for exporting and importing fill presets. It has 1.7k stars and was last updated on Oct 18, 2017. Two orange callout bubbles are present: bubble '1' points to the star count (1.7k), and bubble '2' points to the 'Updated on Oct 18, 2017' text.

It may not be easy to gather enough data for meaningful user ratings of titles. But there are other ways we can show how relevant each result might be.

For each search result on Github, you can see how many users have starred it, their version of saving to My Knovel **(1)**. Github also shows when each repository was last updated **(2)**.

The screenshot shows a Booking.com search result for 'The Bernic Hotel' in Midtown East, New York City. The hotel has an 'Excellent' rating of 8.6 based on 1000+ reviews. It shows that 18 people are looking right now and it has been booked 25 times in the last 6 hours. There are three orange callout bubbles: bubble '3' points to the 'Booked 25 times in the last 6 hours' text. Other features include 'Great Value Today', 'Price for 4 Nights', and a 'Last-minute price drop!' banner showing a price of \$568. The hotel also mentions 'Subway Access' and 'Double Room' availability.

Each Booking.com search result shows how many people are looking at it right now, and how many recently booked **(3)**. For Knovel, we could show how many people have read or saved each result in the recent past.

Highlights & Notes

Low priority for stakeholders, **high** for users we spoke to

Users liked the way e-readers like Kindle handle note-taking, and want to see Knovel do the same. Our users are, after all, often scanning the titles on Knovel for very specific insights.

→ **Feature:** Include “Kindle-like” note taking functionality within titles:

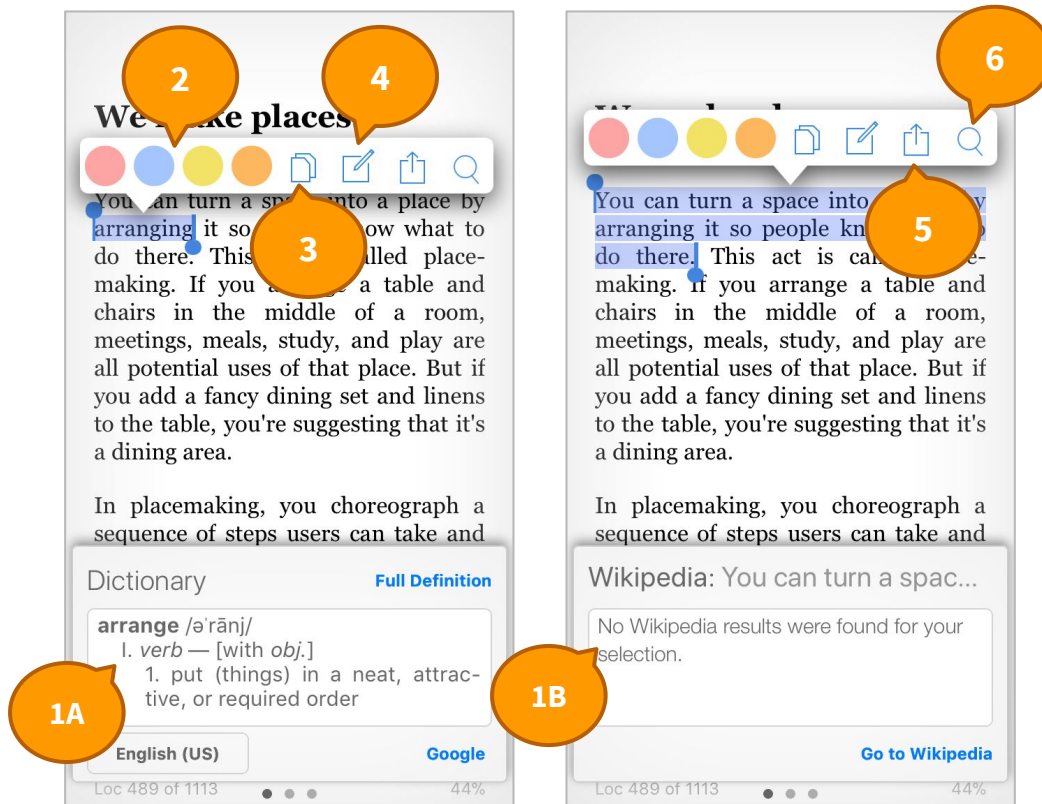
- Highlight text in one of several colors
 - Ideally, the user can give each color a label in Settings/Preferences
- Optionally, attach text notes to a given highlight
 - None of the users we spoke to said they would save audio recordings or drawings as notes
- Provide a list of all highlights within a given title, for easy access to those parts of the text

But Kindle only stores notes within each title. Several users mentioned they wanted to gather notes from many titles in one place. That would mean they could share a subset of notes from one book, or notes from many books, in a single folder.

→ **Feature:** Let users organize and share notes as individual items, outside of their source title.

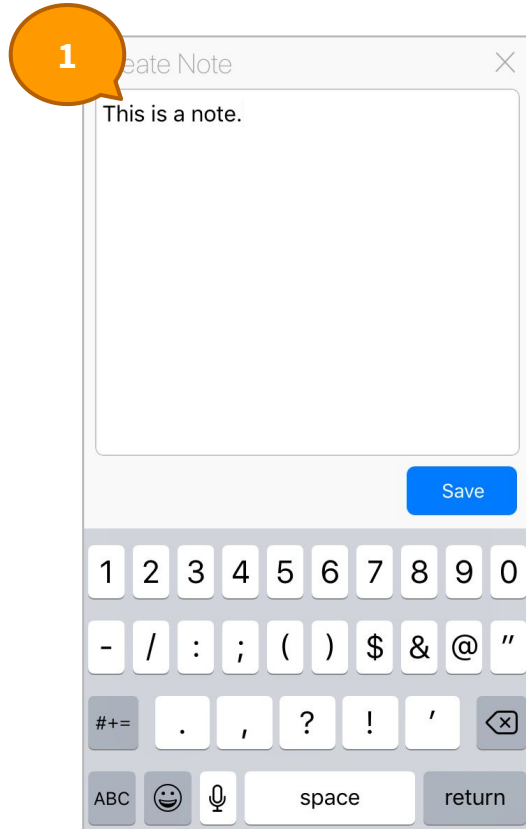
This implies users can group notes from several titles in the same folder, then share that folder.

Highlighting (on Kindle for iPhone)

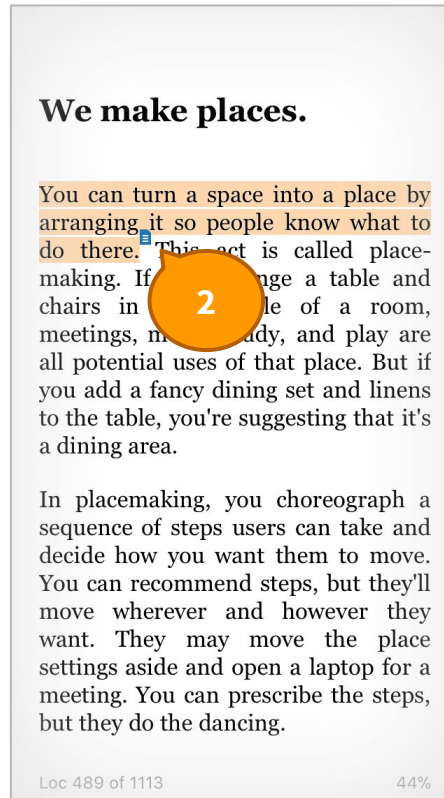


- Highlighting a word will look it up in the dictionary **(1A)**; highlighting a phrase will look it up on Wikipedia **(1B)**
- Users can choose one of four colors to highlight with **(2)**
- The user can copy the highlighted text **(3)**, attach a note to it **(4)**, share the highlight **(5)**, or search for the highlighted text **(6)** in this book, on Google, or on Wikipedia

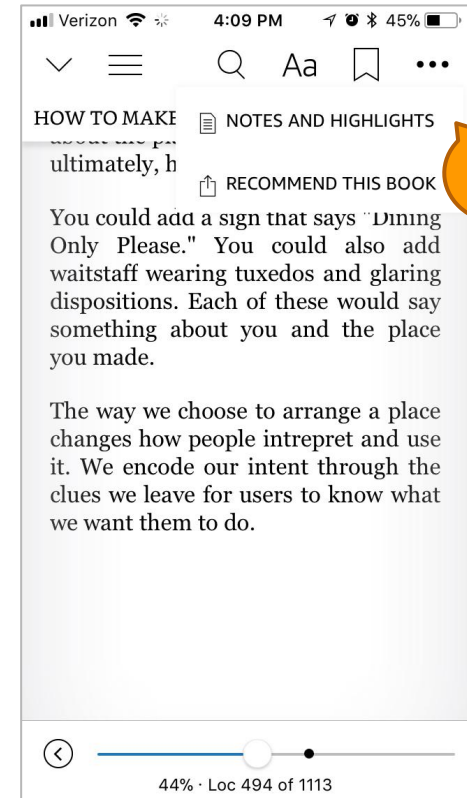
Note Taking (on Kindle for iPhone)



Clicking the note icon on highlighted text opens a modal where the user can type their note (1).

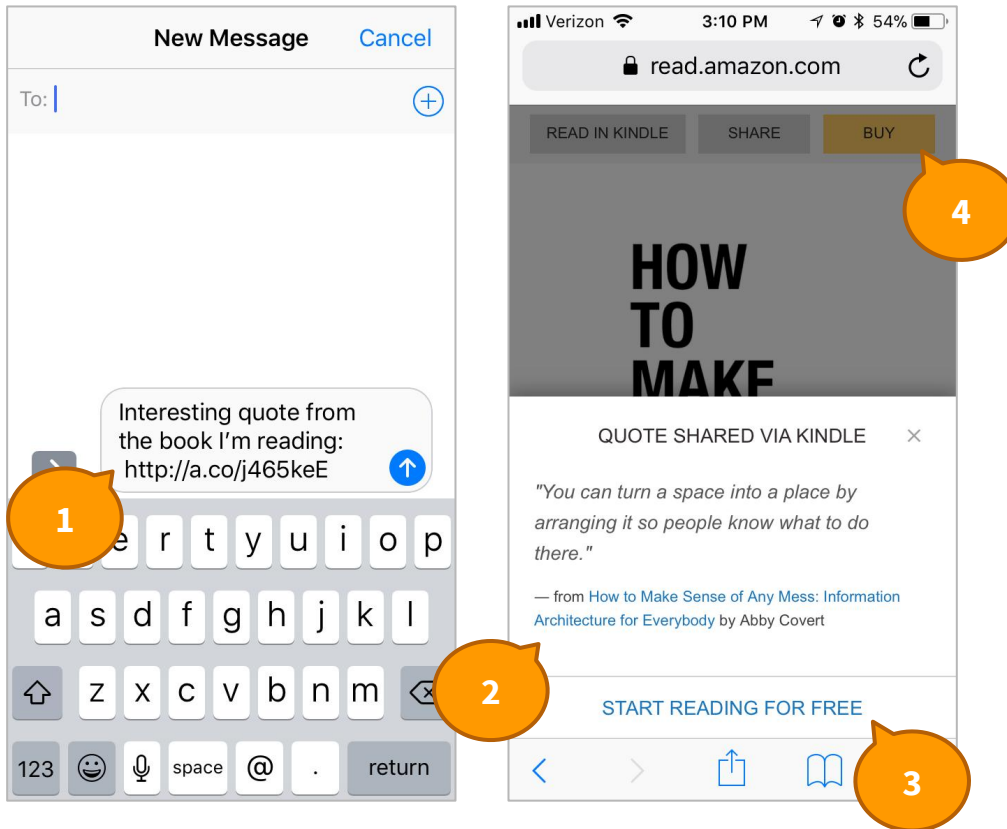


Once they click Save, the app adds an icon to the highlight (2) representing the note.



The user can see all the notes in the book by clicking the "..." icon, then Notes and Highlights (3).

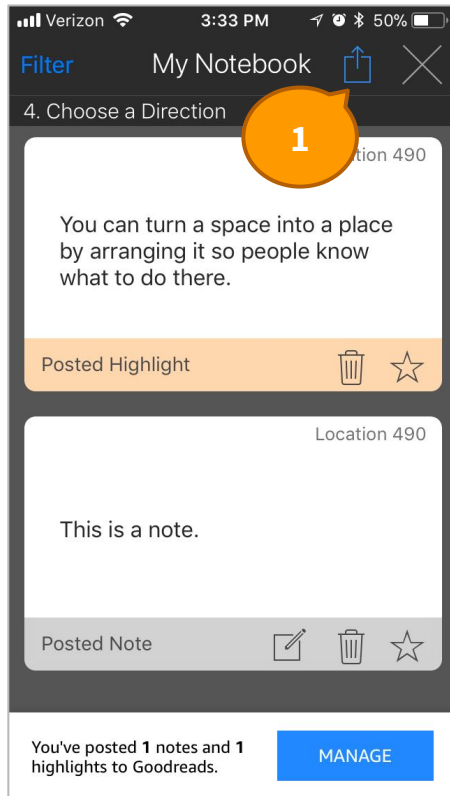
Sharing a Single Highlight (on Kindle for iPhone)



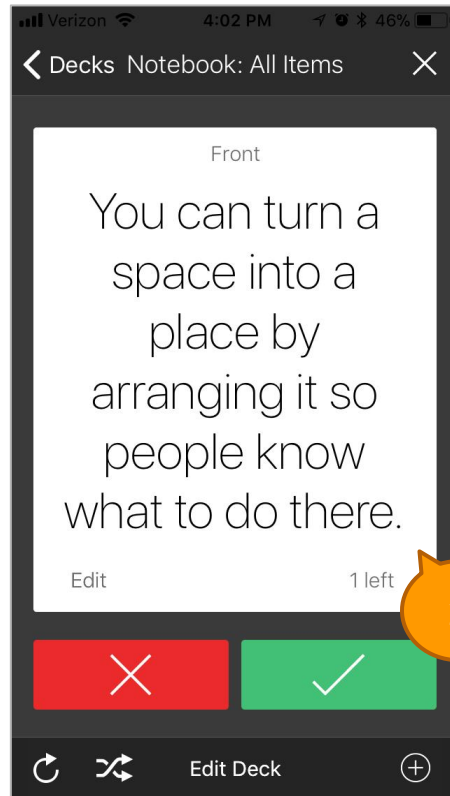
- User can choose from their device's default sharing options; in this case, iMessage **(1)**
- The URL linked shows the highlighted text, title, and author **(2)**, and a preview of the title **(3)**
- As part of the preview, the recipient of the highlight can buy their own copy **(4)** to access the full title

The note associated with this highlight, if any, is actually not included. But based on the users we spoke to, it would be important to share both the highlight and the note.

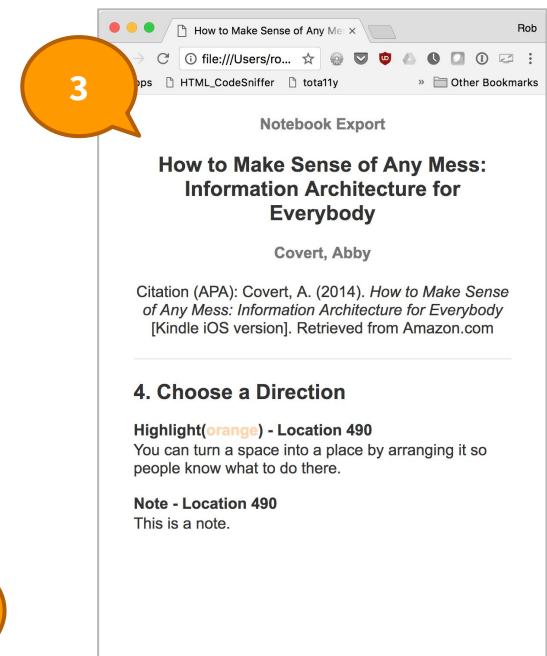
Sharing Many Highlights (on Kindle for iPhone)



The user opens the notebook for a title, then can *export* (not “share”) those notes **(1)**...



...as flashcards **(2)**, which they can’t share. Each card has a highlight on the front, and the related note, if any, on the back.



...or as an HTML file **(3)** attached to an email, which is still notes for only one title, at one point. Our users want to share a set of notes, from several books, which they can add to over time.

Recommendations / Browse

Low priority for stakeholders, **high** for users we spoke to

Sure, some of our users are only scanning Knovel resources for specific information. But most users we spoke to use Knovel on their own time, to learn more about topics they're interested in. These users said they would like the app to guide them through the thousands of titles available.

For one, when the user is reading or finished reading a title, they want to see related books to read next.

→ **Feature:** List titles related to the currently-open title on each title detail page.

The users we spoke to liked how Amazon recommends new books to read based on their order history, or how Netflix recommends movies to watch based on the movies you've watched before.

→ **Feature:** Recommend titles *implicitly*, based on user activity within Knovel.

New users would then need some way to get valid recommendations without any previous activity.

→ **Feature:** Recommend titles *explicitly* for new users, based on preferences set during onboarding.

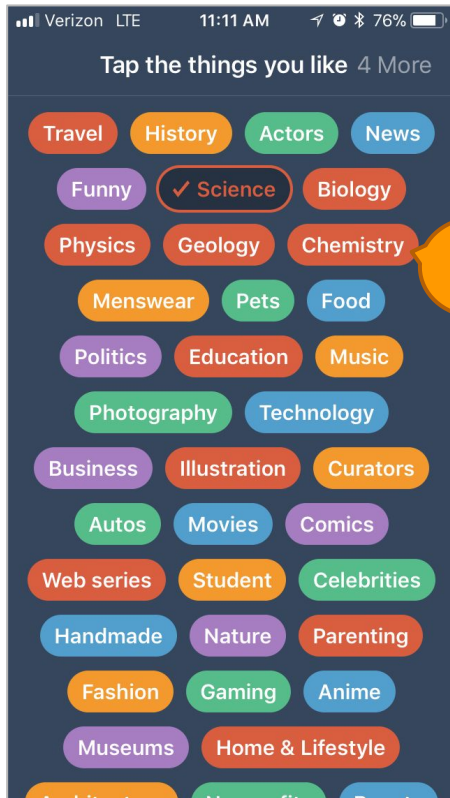
Users said they often use other platforms to find the newest or most popular books in their field or at their company.

→ **Feature:** *Automatically* curate lists of the newest or most popular titles.

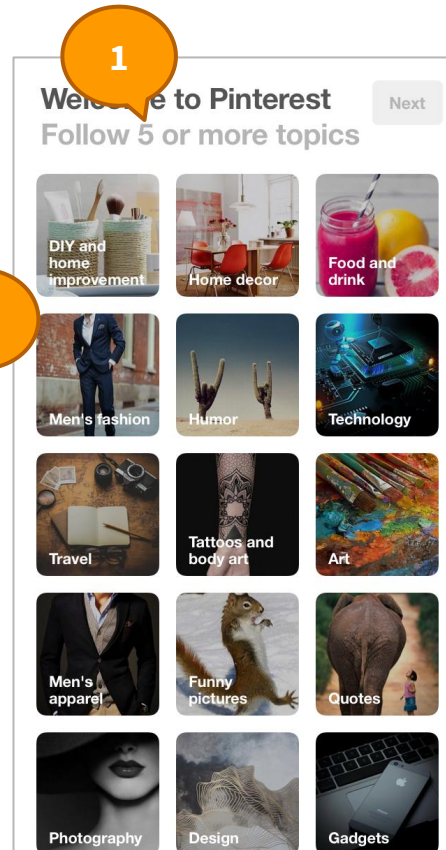
Finally, our academic users said they would like a preselected list of titles used in their programs. Professional users said they get recommendations from industry leaders on blogs, podcasts, etc.

→ **Feature:** *Manually* curate lists of titles from account managers, Knovel librarians, or industry experts.

Setting Preferences During Onboarding



Tumblr for iPhone



Pinterest for iPhone

Tumblr and Pinterest are two of our favorite examples of how to make setting user preferences an effortless part of onboarding.

Both platforms only ask the user to select at least 5 preferences **(1)** — a good balance between getting a meaningful amount of data, and not having the user do too much.

While both platforms have a deep hierarchy of tags, they make it easy to navigate by only showing child tags after the parents are selected **(2)**.

Sync Desktop & Mobile

Medium priority for stakeholders, **medium** for users we spoke to

Users mentioned they liked how Knovel tracks where they left off in a given title. But there are subtle ways that other e-readers make it even easier to access the last book they were reading.

→ **Feature:** Give users easy access to the last point in the last title they were reading.

One user mentioned that on the Google Play app store, you can send an app straight to your Android device. Along those lines, after buying a Kindle book, you can send it to a device running the Kindle app. The next time you open the app, it will start downloading the book for you.

→ **Feature:** After saving a title to mobile, download it to the device the next time the user opens the app.

Users agreed that the desktop and mobile platforms should work together seamlessly.

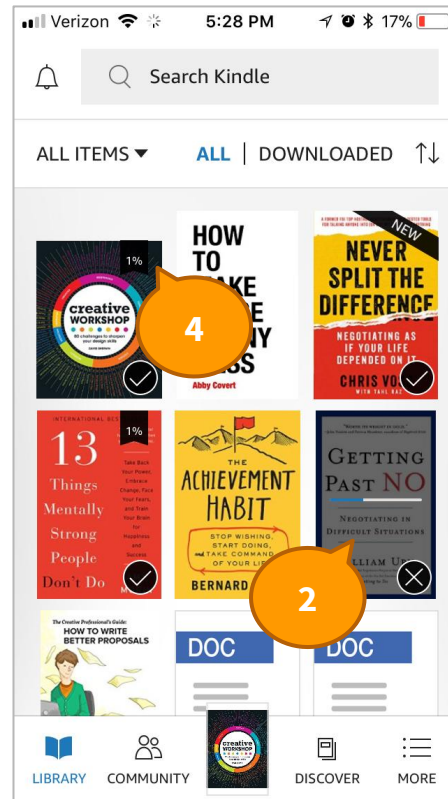
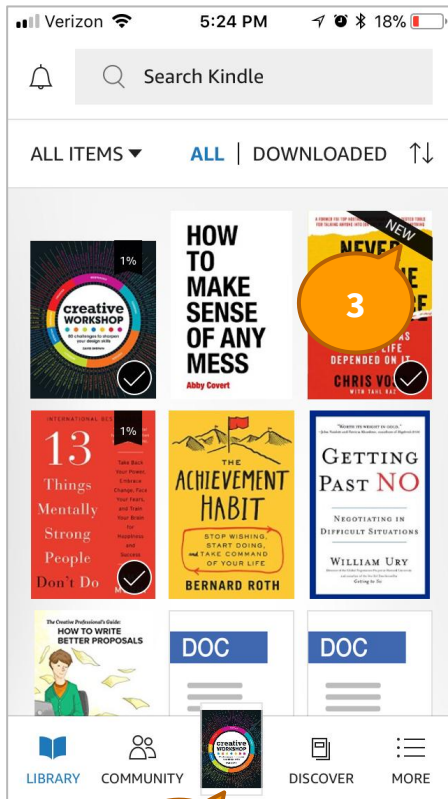
→ **Feature:** All activity tracked in My Knovel should be viewable on mobile. The desktop activity feed should include all mobile activity.

(When a user views a KDA entry, their activity feed says only that they viewed the associated database. In the app, we can do the same.)

Finally, based on how users referred to My Knovel ToGo during interviews...

→ **Feature:** Rename the app from My Knovel ToGo to Knovel, to reinforce the link between the two platforms.

Desktop & Mobile Sync (on Kindle for iPhone)



In the Kindle app, a thumbnail of the last book opened (**1**) shows in the navigation bar for easy access.

Users can send books to their device via Amazon.com, and next time they open the app, the book will start downloading to their device (**2**).

Also note how Kindle indicates which books are new to the device (**3**), as well as progress within each book (**4**). (This may not be as relevant for Knovel users, who we've heard usually skim titles.)

Finally, when a user first opens a book on Kindle, they see an About the Book modal, like Knovel's Table of Contents view. On later opens, though, the app goes straight to where they left off in that book.

My Saved Items / Collaboration

Medium priority for stakeholders, **medium** for users we spoke to

→ **Feature:** Users told us they would like to be able to save and share the following from the app:

- Search queries
- Titles, or chapters of titles
- Highlights/notes
- Interactive tables
- Interactive graphs

Users also said they would like the ability to organize these items into folders. Part of this was for semantics (these items are for this project). But most of all, they wanted to share folders, whose content could change over time, not only single items.

→ **Feature:** Allow users to save items to specific folders, and move or copy items across folders.

→ **Feature:** Let users share folders as well as individual items.

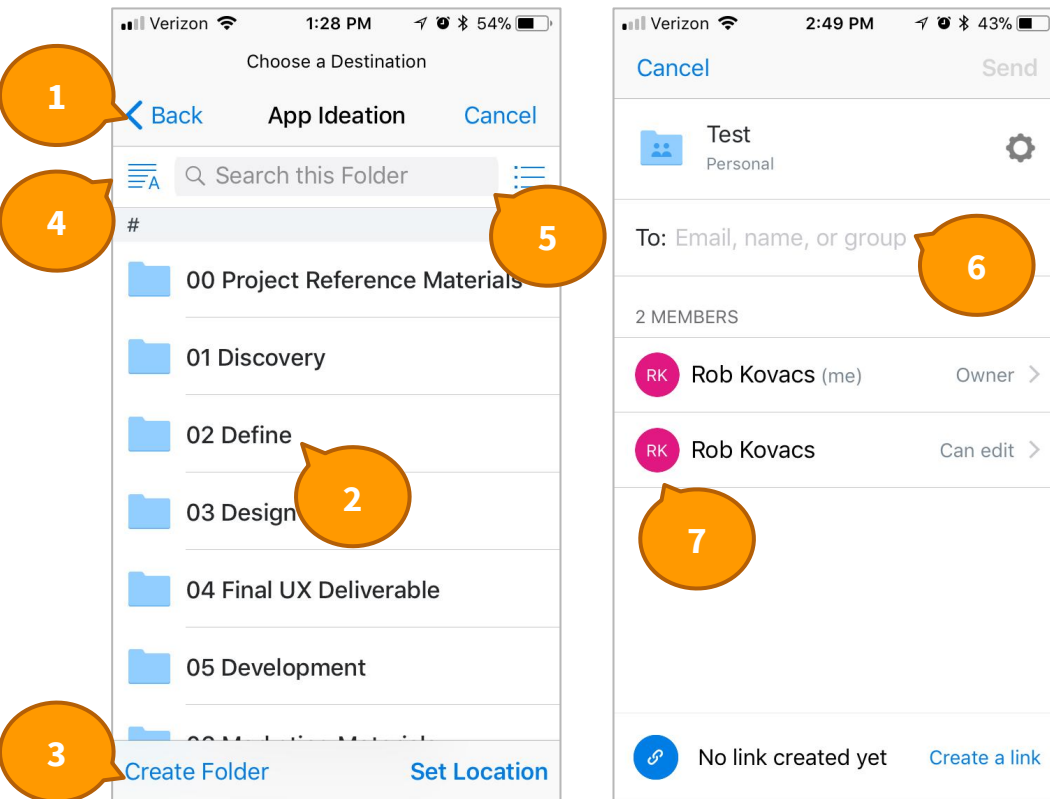
When users share data from Knovel, they prefer to do it with the external tools they already use to communicate with their colleagues. Also, as we know, most users of Knovel don't have an registered identity within the platform.

→ **Feature:** Use platform defaults for sharing.

When the recipient tries to open a shared resource, we can open it in the Knovel app, if they're on a device that has it.

If they don't, we can send them to the Knovel site, and ask them to login there. Even better, we can use a "smart app banner" (on iOS) or "native app install banner" (on Android) to get them to the mobile app.

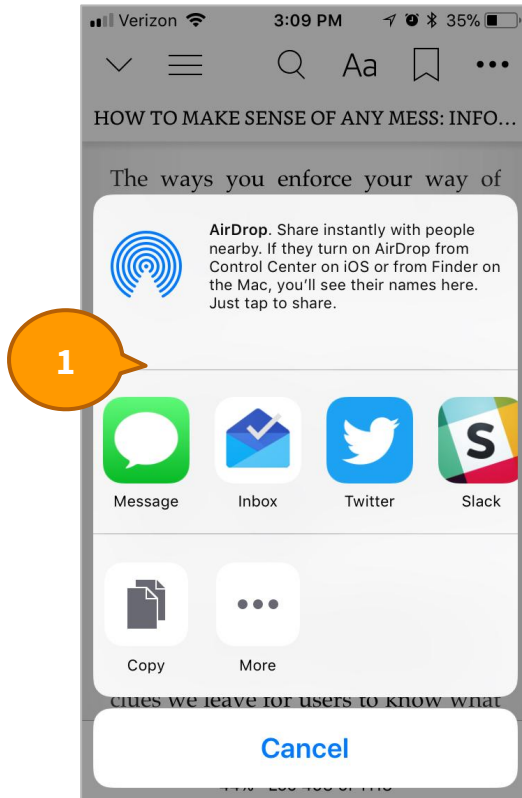
Managing Saved Items & Folders (Dropbox for iPhone)



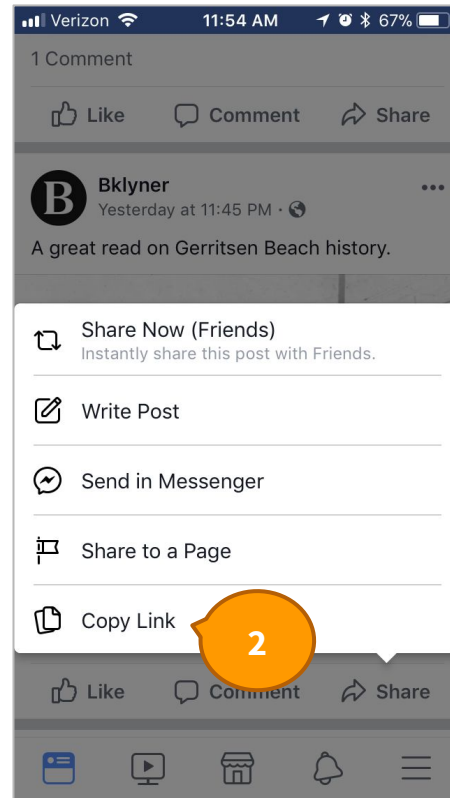
When moving or copying a file in Dropbox, you can move up **(1)** or down **(2)** the folder tree of your Dropbox, or create a new folder for this file **(3)**. You can even sort **(4)** or filter **(5)** the subfolders of the current folder, to find exactly the right one.

While managing access to Dropbox folders, you can add **(6)**, or edit or delete existing users **(7)** from the same screen.

Sharing Externally vs. Internally



Kindle for iPhone

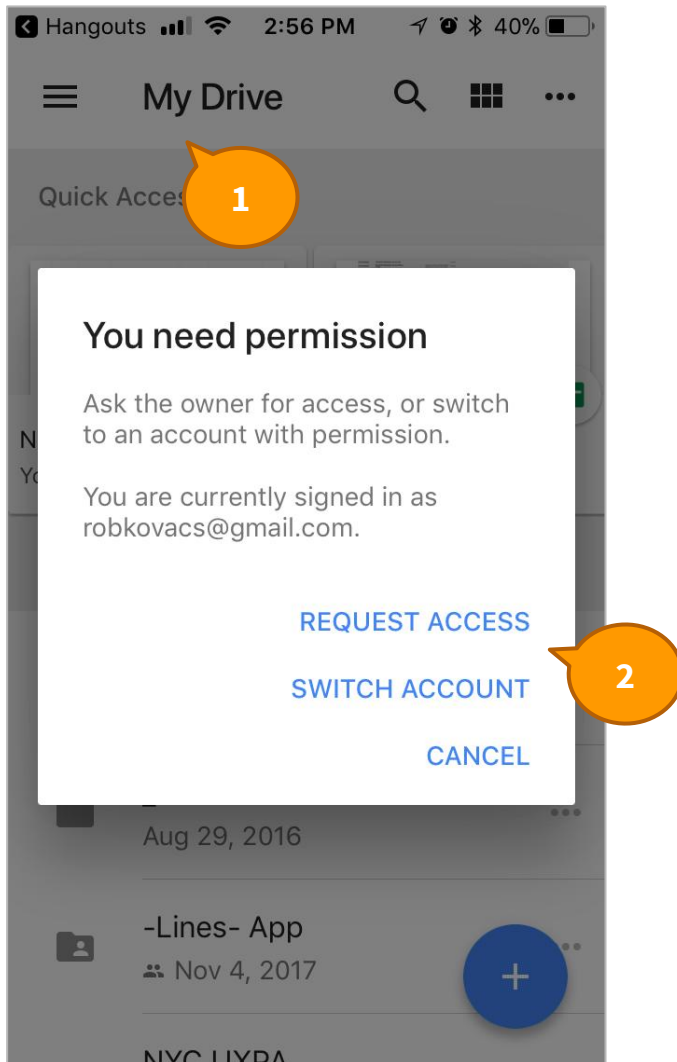


Facebook for iPhone

On Kindle for iOS, sharing or recommending a book uses iOS' default options **(1)**. Like Knovel, there isn't much of a social aspect to Kindle, so they externalize sharing to other apps.

On Facebook, most of the ways to share content keep the user within Facebook. But even so, you can copy a link to a post **(2)** to share it in another app.

Sharing + Authentication (Google Drive for iPhone)



With Google Drive, users can open a link to a file they won't have access to without authenticating first.

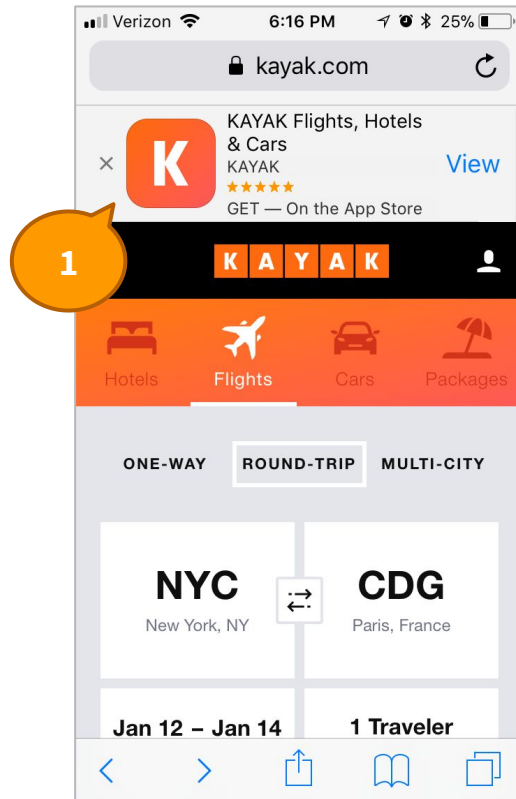
If they open the link on a mobile device with the Google Drive app installed, the link will open in the app **(1)**.

If the current Google account can't access the file, the user must request access, or switch accounts **(2)**.

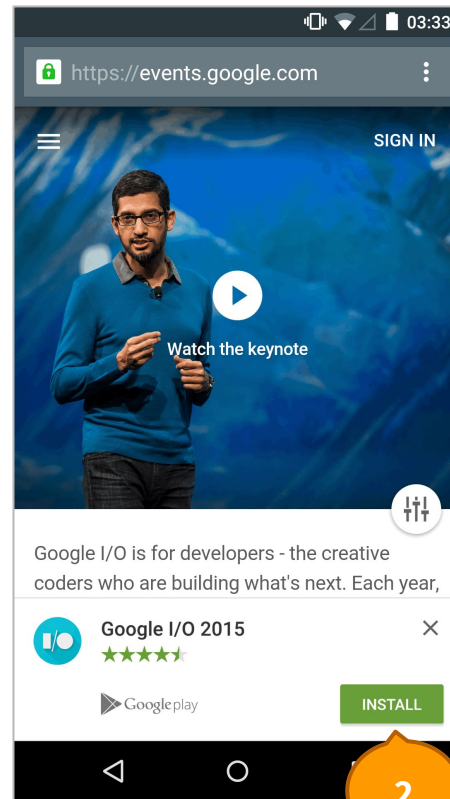
Similarly, when users share links to Knovel resources, even outside of Knovel, we could:

- Redirect to the mobile app when a user opens a link on a mobile device that has it installed
 - **Universal Links (iOS):**
<https://developer.apple.com/ios/universal-links/>
 - **Android App Links:**
<https://developer.android.com/studio/write/app-link-indexing.html>
- Ask the user to authenticate if needed, and block access to the resource if they don't have the rights to view it.

Smart App / Native App Install Banners



iOS



Android

On iOS (1) and Android (2) browsers, sites can use built-in features to send users to the associated native app.

iOS:

<https://developer.apple.com/library/content/documentation/AppleApplications/Reference/SafariWebContent/PromotingAppswithAppBanners/PromotingAppswithAppBanners.html>

Android:

https://developers.google.com/web/fundamentals/app-install-banners/#native_app_install_banners

This is a simple way to let users know about the Knovel mobile app, and that they don't have to use it in their mobile browser.

Tools & Interactivity

High priority for stakeholders, **low** for users we spoke to

The users we spoke to think of Knovel as a book library first. For example, they don't use the Property Search, Equations, or Unit Converter on desktop.

Users find books, then use the tables, graphs, and equations found inside. But when they're inside a book, they aren't aware that the interactive version exists.

→ **Feature:** Link to interactive tables and graphs from the Table of Contents of each title.

→ **Feature:** Link to interactive tables and graphs in context, next to the “print” version.

Most users prefer to do in-depth work with Knovel's tables, graphs, and equations in the desktop software of their choice.

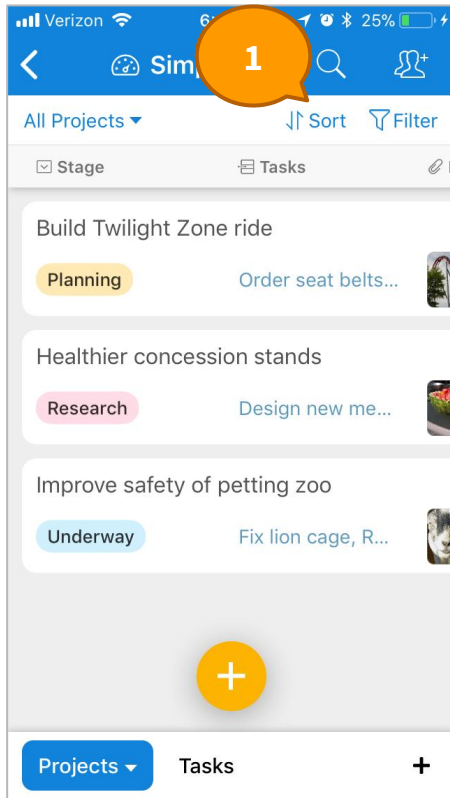
→ **Feature:** Let users save interactive tables, graphs, and equations to My Knovel from the app, so they can access them again on desktop.

Users did suggest that some basic interactions would be mobile-appropriate.

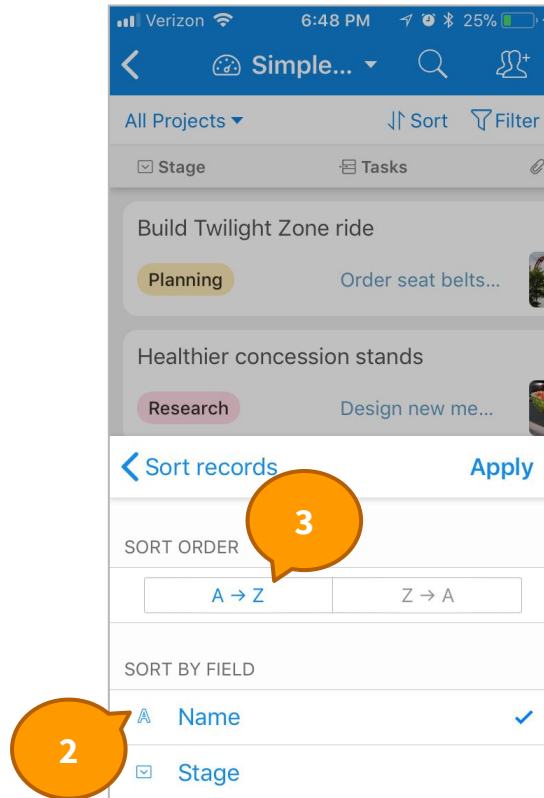
→ **Feature:** Support the following interactions on mobile:

- Sorting and filtering table rows and columns, to get only the data you need
- Tapping a point on a graph to reveal its coordinates
- Converting units of a graph axis or table column as needed
- Editing the values for variables in an equation, and checking the result

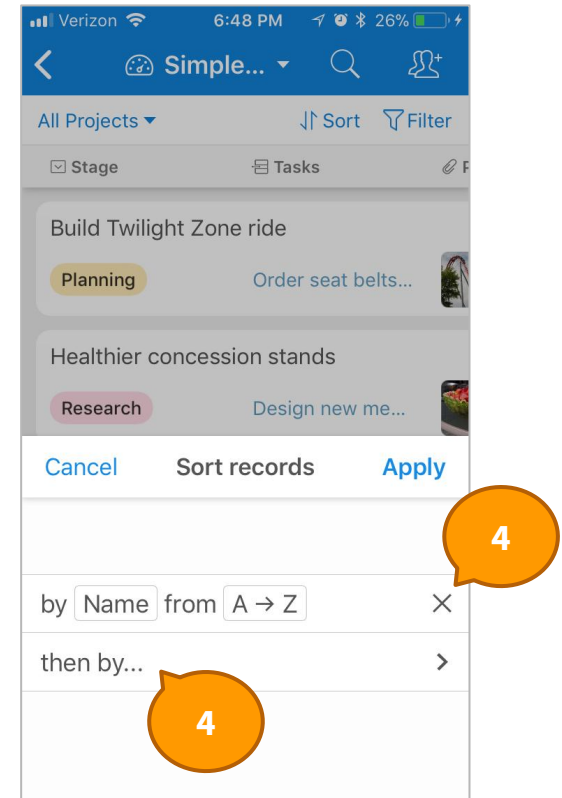
Sorting Tables (Airtable for iPhone)



First, the user clicks the Sort button (1).

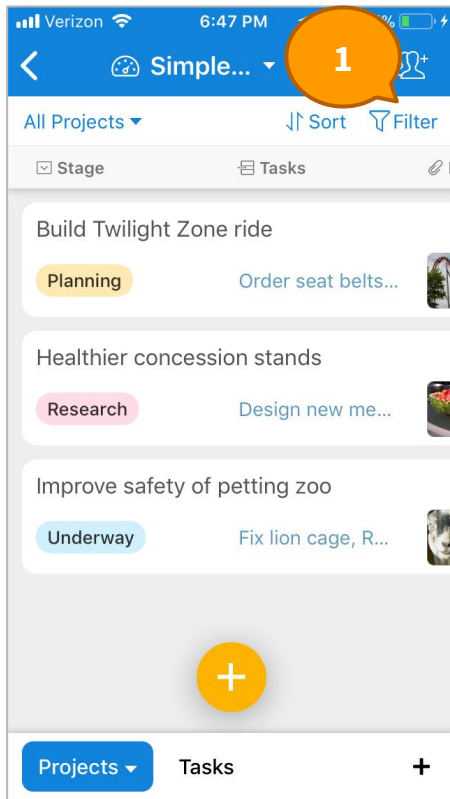


Then they choose a field (2), and a sort order (3), the label for which changes based on that field's data type.

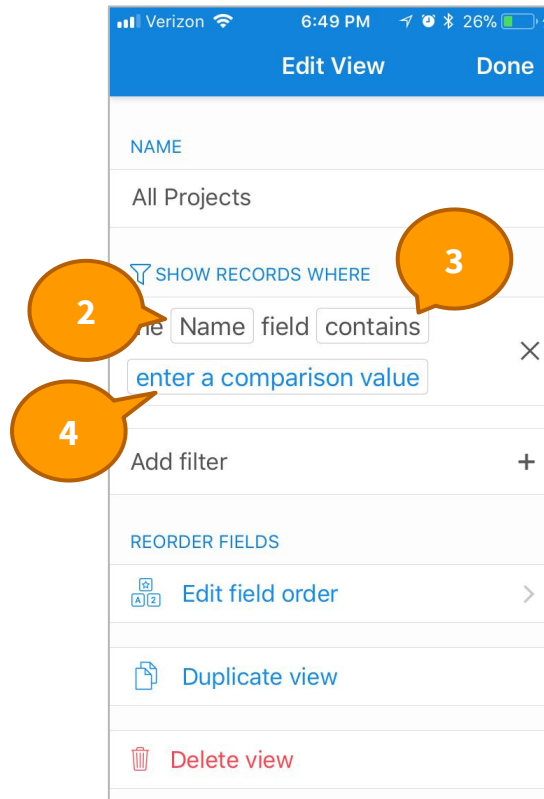


The user can add another by clicking “then by...” (4), or edit or remove (5) existing sorts. Ideally, you could move sorts up and down as well.

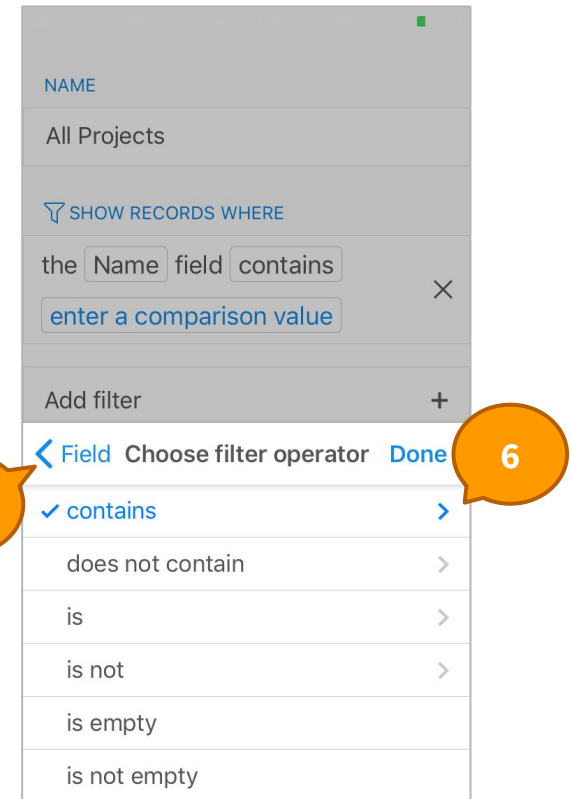
Filtering Tables (Airtable for iPhone)



First, the user clicks the Filter button (1).

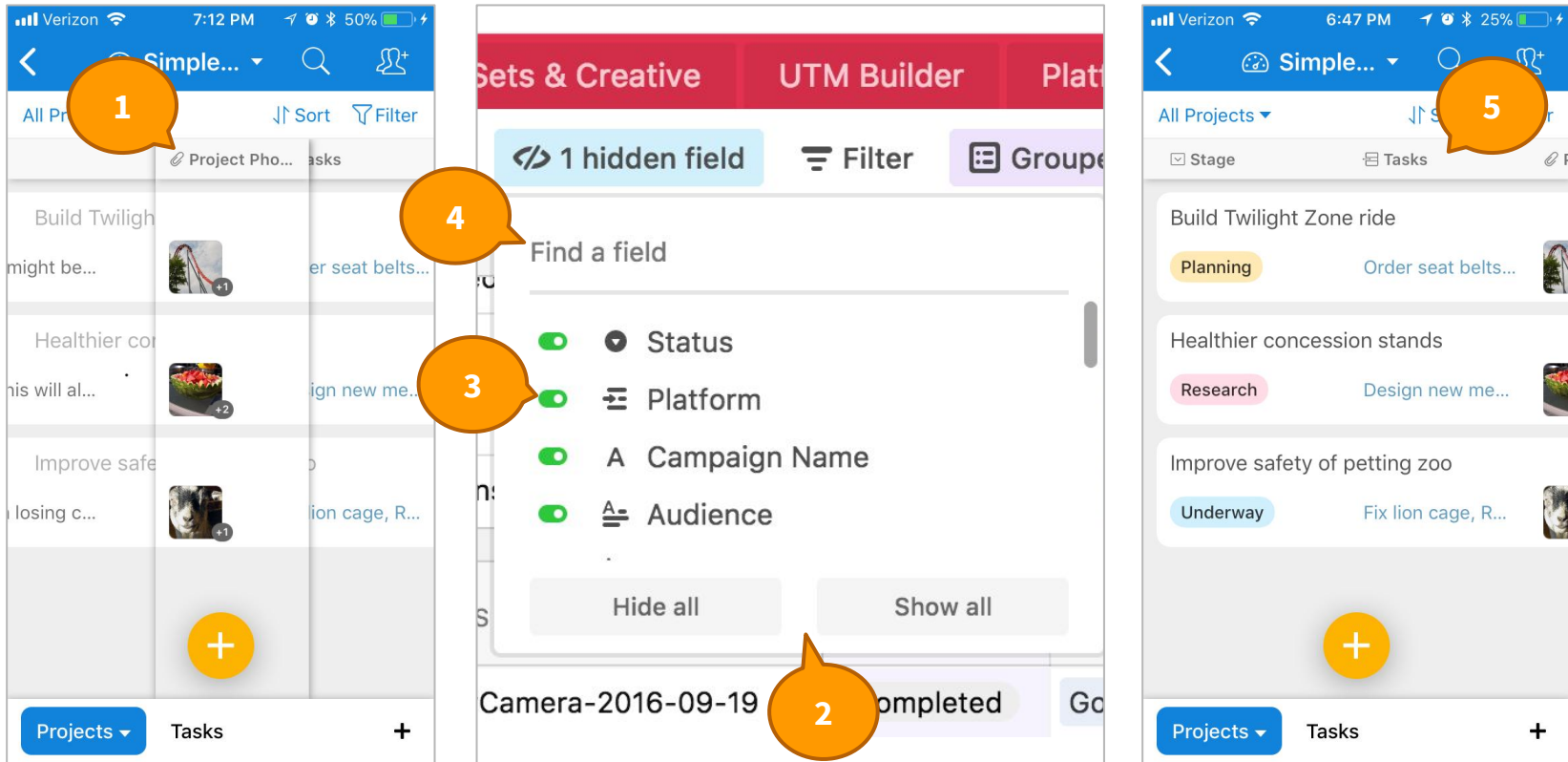


Each filter consists of a field (2), a comparison operator (3), and a comparison value (4). The available operators and value data type depend on the field.



It's easy to move across all three: tap here (5) to go back, or here (6) to go forward, if needed, once you make a selection.

Moving, Hiding, and Editing Columns



Moving a column is as easy as tapping-and-holding on the column header, then letting go in the right place **(1)**.

On Airtable desktop (strangely, not on mobile), you can show and hide columns all at once **(2)** or one at a time **(3)**. You can also search for a specific column to toggle **(4)**.

Column headers **(5)** could have a unit listed as well (e.g. mg/L), which you could tap to change, like unit conversion in KDA.

Onboarding / Access & Authentication

Medium priority for stakeholders, **low** for users we spoke to

Because the people we spoke to all used My Knovel ToGo, they didn't mention having any issues logging into the app.

But we know that many Knovel desktop users don't think they have the right subscription to use the app. They may have tried to login with a mobile authentication code, but couldn't figure out how.

The following recommendations draw from general best practices for mobile authentication:

Reduce the need to login

→ **Feature:** Increase the time it takes for a user's logged-in state to timeout.

→ **Feature:** Let anonymous users search everything, but only read the Knovel Sampler, like desktop. (Maybe even allow mobile users to create a Try Knovel account.)

→ **Feature:** Instead of forcing an inactive user to log back in right away, wait until they absolutely have to.

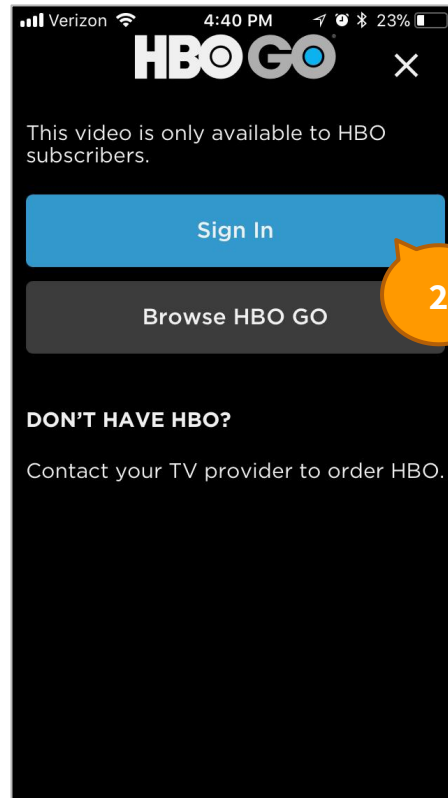
Make logging in easier

→ **Feature:** Don't show the tutorial to a user that has logged in via mobile more than once.

→ **Feature:** State that logging in implies agreement with the Terms & Conditions. Don't force users to check the box every time.

→ **Feature:** Simplify the login process for unregistered users, perhaps drawing from how you activate a Roku channel.

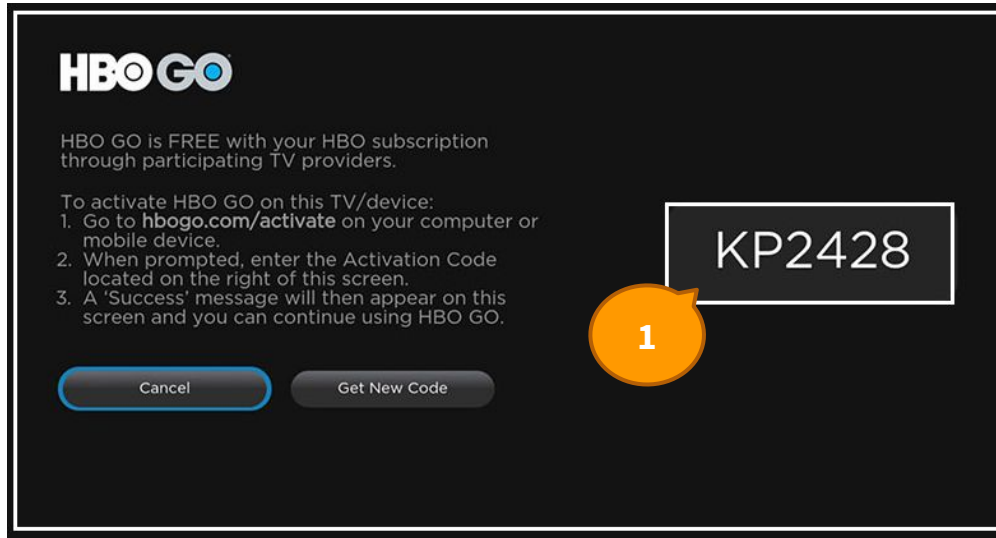
Postponing Authentication (HBO Go for iPhone)



On HBO Go, without logging in, you can browse the entire library of shows and movies, and even watch previews **(1)**.

It's only when you try to watch a full movie or episode that you're asked to sign in **(2)** to verify that you're an HBO subscriber.

Easier Authentication via Web (HBO Go for Roku)



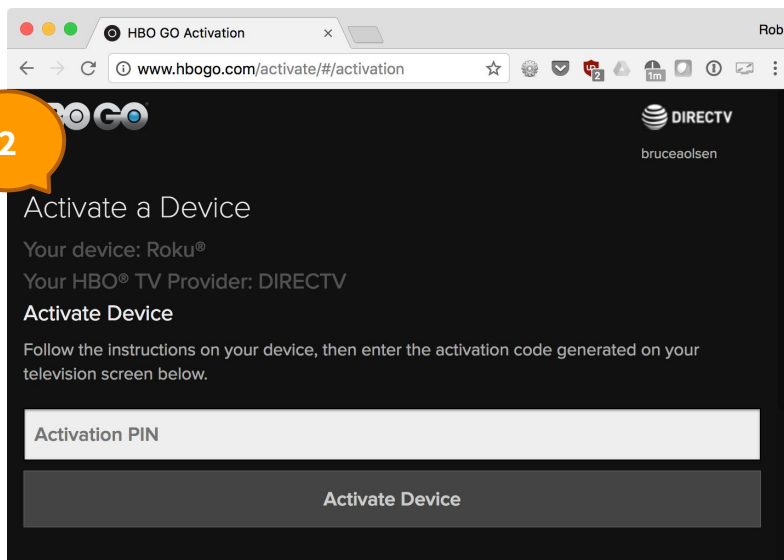
On the HBO Go Roku app, users get a 6-character code **(1)**, and told to login at <http://hbogo.com/activate> on another device.

The benefit to this approach is that:

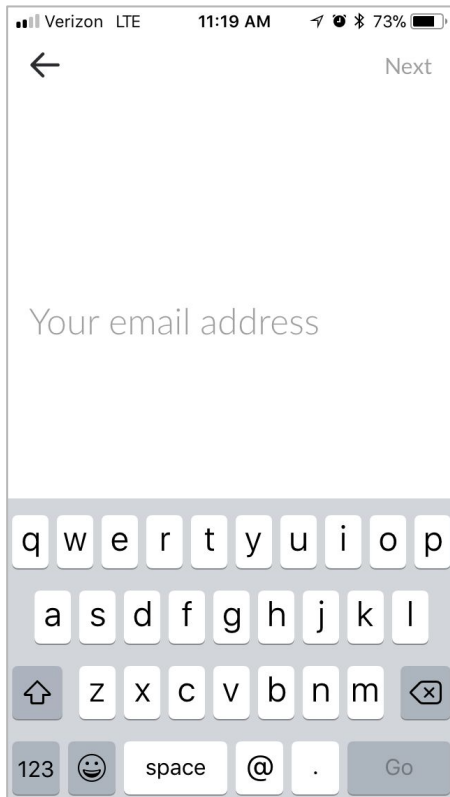
- The user knows exactly where they need to go, and what to do, to login
- It's easier to type on other devices than with a Roku remote

Knovel could use the activation site **(2)**, to market the benefits of registration. We could even allow users to register and activate the app at the same time.

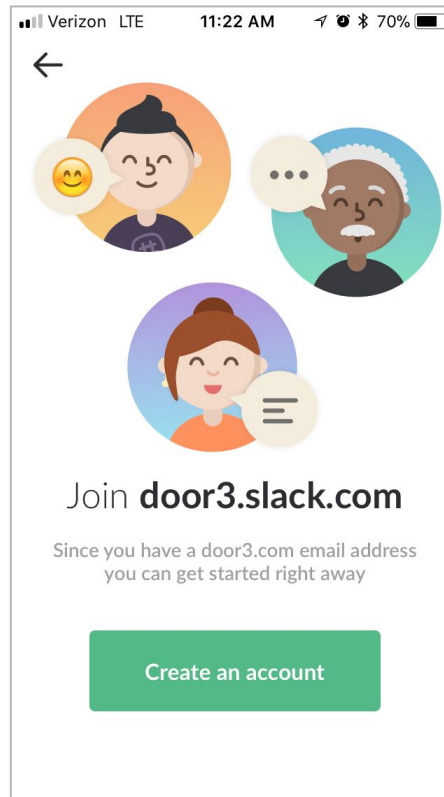
If it means they won't have to go through this process again, registration should be an easy sell.



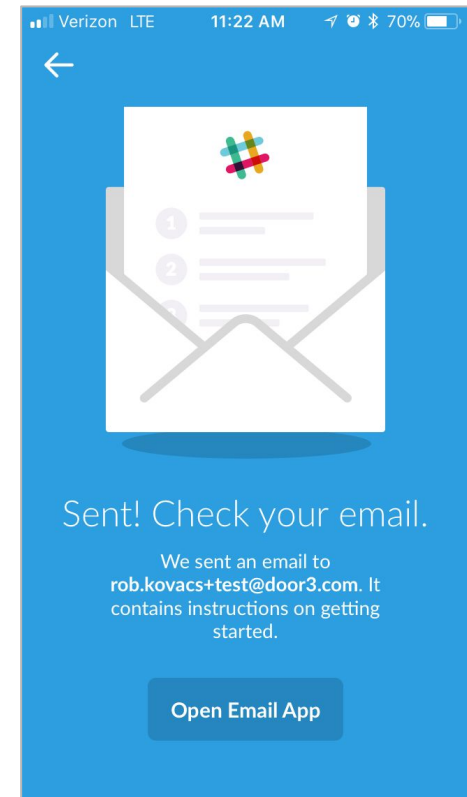
Creating Account on Mobile (Slack for iPhone)



The login process begins by asking the user for their email address.

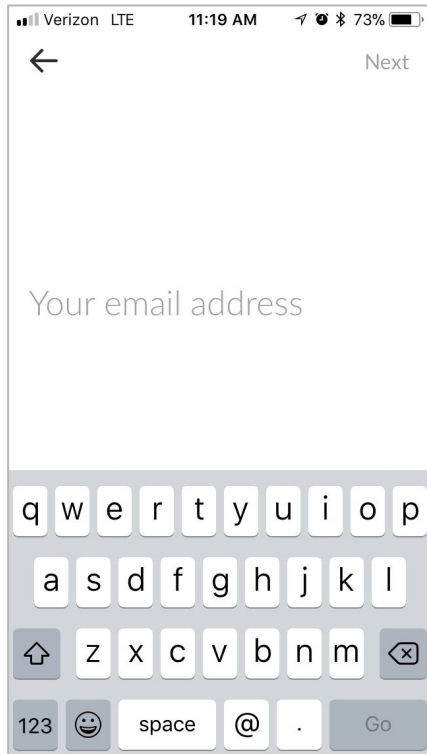


If users from that domain can access this Slack, but there's no account for this address, you can create one...

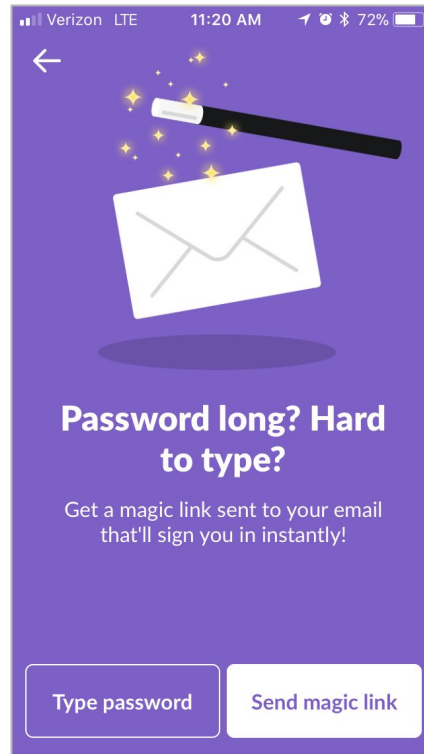


...from a link sent via email, which confirms the address first. Opening the email on this device will continue sign up in the app.

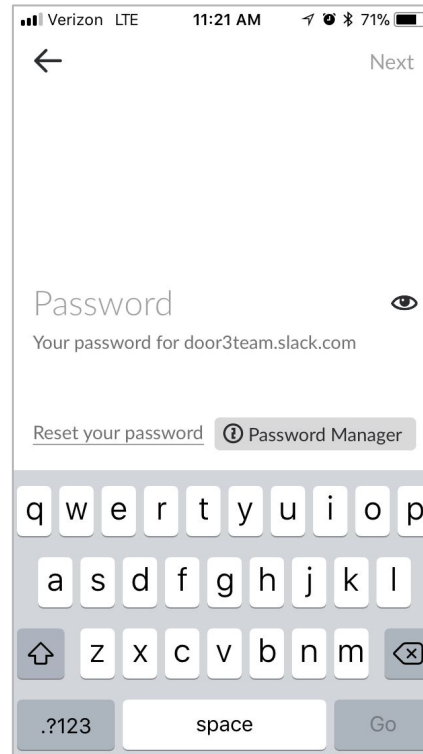
Login on Mobile (Slack for iPhone)



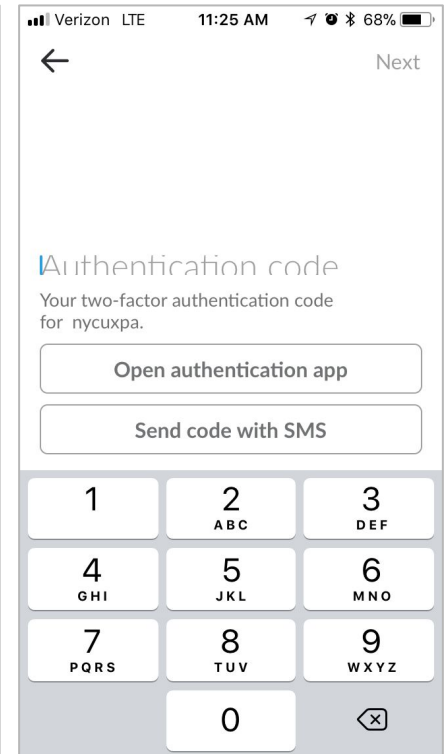
First they ask for the user's email address, so they can redirect to creating an account if needed.



They can enter their password, or login through a link sent to their email address.



If entering password manually, the user can see what they're typing, or use a password manager.



Optionally, Slack allows users to secure their account with two-factor authentication.



Next Steps

Thank you!



Appendix

- Interview Notes

Interview #1: David Angeles

About David

David is a senior studying mechanical engineering at CETYS Universidad in Mexicali, Mexico, concentrating on aerospace engineering.

Why He Uses Knovel

He uses Knovel weekly to support his studies and research. He especially uses the tablet app to download titles to read over summer or winter breaks.

Key Insights

- Occasionally re-uses data from tables or graphs within books, but wasn't aware that there were interactive equivalents
- Will use a Word document to gather references from books from multiple sources: Knovel, Springer, public library, etc.
- If Knovel made it easy to highlight and store specific parts of their books, would consider using Knovel as primary storage of references
- Searches for books on Knovel desktop, then downloads the PDF to read on mobile (was having issues accessing titles in the app)
- Prefers Kindle reading experience - PDFs are hard to read, unless you read in landscape.
- Also likes how on Kindle, you can search the whole book at once
- Splits reading across tablet/PDF and desktop
- Highlights/takes notes inside Knovel PDFs using another PDF reader
- Would prefer to have different colors for highlights, and to assign names to the colors
- Would like to search all highlights from any book, all together
- Would like to share individual highlights, or a folder of highlights. All his team can do now is gather PDFs of books on Google Drive, and separately create a list of the important parts
- All the students in his program have access to Knovel, so storing research within Knovel wouldn't be an issue
- As far as sharing, he often talks to other students on Facebook Messenger, would be nice if he could easily send Knovel links on there
- While studying, he sometimes searches Google for videos explaining a new topic
- Would like books saved to mobile to download automatically

Interview #2: Mohammed Shamaa

About Mohammed

Mohammed is a technical engineer at Hilti, focused on the oil industry, who recently completed a Master's in Petroleum Engineering at Texas A&M.

Why He Uses Knovel

He used Knovel, on desktop and an Android tablet, to do research to support his Master's thesis. While he still has access to Knovel through Texas A&M, he occasionally uses it for work-related research.

Key Insights

- Search was done through a Texas A&M service that searches all the resources they have access to, Knovel included
- Common process while working on thesis was to have the thesis document up on his desktop, My Knovel ToGo on his tablet, and a notebook for written notes
- It was very convenient how the Knovel app would remember where you left off in a certain book
- He would often find a table or graph in a title on his tablet, then struggle to find that same table or graph on Knovel desktop
- With tables, he may need to modify them to select only certain rows or columns, but for graphs, screenshots were enough
- Would be very helpful to make note of relevant parts of titles within the app, instead of writing them down separately
- Might want to make note of a certain point on a graph - for example, to compare graphs for two materials
- Like David, consolidated notes from several sources into a single Word document
- Storing research in My Knovel vs. Word or Dropbox would be ideal if My Knovel allowed you upload files (like Dropbox) and allowed you to store references to particular portions of Knovel titles (notes/highlights)
- After making several notes throughout a certain book, it would be great if there was a way to search through all those notes
- As he gathered information from various sources, his advisor would always ask for the specific reference. So again, being able to point back to a specific point in a specific book would be very helpful
- Currently, the best he could do was share a link to a book, then tell the advisor to go to a certain chapter, or certain page

Interview #3: Soujanna Sarkar

About Soujanna

Soujanna designs modem hardware at Intel.

Why He Uses Knovel

Intel gives him access to Knovel, which he uses on desktop and iPad to do reading in his free time to learn more about topics relevant to his work.

Key Insights

- Will search on desktop at work, save books to mobile, than download and read on iPad. Specifically mentioned searching on desktop is easier
- Knovel doesn't always show a lot of results, but that's to be expected - understands they have only the most relevant materials, for very specific topics
- Reads not only on Knovel, but also articles and blogs, printed books, magazines, podcasts, and audiobooks
- Referenced Kindle as a good note-taking experience: can highlight, add your own notes, and browse all notes and go back to that point in the book
- Prefers how the app downloads the entire book, because that way there's no lag as you skip between chapters
- Sometimes shares interesting things he reads, by sharing links over email with a team distribution list
- Would like notes to be treated individually, so you could make multiple groups of notes within a book, or groups of notes from multiple books
- Would love if Knovel had the option to read books to you, so he could listen rather than read, more convenient while traveling
- Referenced Blinkist (<http://blinkist.com>) as an example of good summaries of business books, both text and audio
- Not too worried about evaluating whether a book is a good match before downloading/reading, because there's no cost to download. Summaries would be more for time-saving purposes.
- Would like to see lists of the newest books in a topic, "best-selling"/most downloaded books in a topic, as well as recommendations from reputable people in his field. Will often read a book based on a recommendation from a colleague, a speaker, or good ratings on Amazon
- Within My Resources on the Knovel app, it would be nice to be able to group titles. As is, will remove books from My Resources if there gets to be too many (8+)

Interview #4: David Peraino

About David

David is a process engineer at Marathon Petroleum. His job is to keep their oil refining processes running smoothly, and find ways to improve them.

Why He Uses Knovel

David has been using Knovel for the past 8 years to refresh his knowledge of chemical engineering fundamentals, or look up relevant equations to compare observed results to expected results.

Key Insights

- Uses Knovel desktop at work, and app on his mobile phone at home or when travelling. He owns a tablet, but always has his phone with him.
- When you browse on desktop, you can filter by multiple levels, but only one on mobile
- In general, while searching, he'd like to be able to filter for results specific to the oil industry, not applications of the same techniques to the food or pharmaceutical industries, for example
- Does all his searching on desktop because of the additional features available
- To evaluate search results, has to open each one, read the description and browse the Table of Contents. Would be nice if there was a simpler way
- Sometimes looks up equations in Knovel, but works with them on paper or in an Excel spreadsheet
- While reading a book, it'd be nice if his phone didn't ever lock/go to sleep.
- Reads in landscape, because in portrait, you have to scroll horizontally to read each line
- At work, while reading in Knovel desktop, takes handwritten notes, or on a printout of the PDF. No equivalent for mobile reading
- In his work-related print books, he has several post-its that mark important sections, with written notes sticking out labeling each one (like index tabs). Would love an equivalent for the Knovel mobile app.
- If Knovel had a way of doing this, it would be nice to search across all saved books for these notes.
- Saves PDFs of commonly-referenced titles to a personal folder on his desktop, so that they're easy to organize, search, and share with teammates
- Sometimes reviews PDF with others over screen sharing, to confirm they're seeing the same thing, and because complex equations are hard to reproduce

Interview #5: Viet Le

About David

Viet is an electrical engineer in the U.S. Army Corps of Engineers, specializing in hydroelectric power systems.

Why He Uses Knovel

Viet uses Knovel on desktop and iPhone, in his free time and occasionally at work, to brush up on general electrical engineering concepts.

Key Insights

- Viet mentioned that he browses and searches mostly on mobile, but also that it can be difficult. For example, searching for “PLC” shows one result on mobile, but 1900+ on desktop. Also in the Electrical Engineering category on mobile, there’s no way to filter further to just Power Engineering books.
- He uses Knovel about once a week, “98%” in his free time, and “2%” for specific issues at work
- Sometimes there are results showing on desktop that can’t be viewed on mobile (*ed. note: mobile searches titles only*)
- To read books he found on desktop on his iPhone, he searches for it separately on mobile
- Can’t swipe left and right to move between pages, only scroll up and down
- Too much of the default reader view is taken up by thumbnails of pages and previous/next buttons, which he never uses (just swipe/scroll)
- Tapping once on text hides menus, tapping twice zooms in, tapping a third time...goes to page 1 of the chapter! This is very annoying for him.
- Sometimes searches Knovel for books not directly work-related, like about leadership or writing
- If he has to take notes, he’ll do that on his laptop while reading on his phone, but would love to do it all in one
- Highlighting text or sections should include the ability to comment, to remember why this was important
- Recently had an example of finding a book on selsyn motors in Knovel, as far as sharing with colleagues, could only tell them the title and page number. If he could share a link to the content directly, that would be great
- If the app were to recommend books to read, it should do so based on users’ previous activity. He probably wouldn’t take the time to set custom preferences about the types of books he wants to read

Interview #6: Sri K. R.

About Sri

Sri works at Eaton Aerospace, examining defective non-metallic hydraulic parts to understand how and why they broke, and apply what he learned to the design and manufacture of the next version.

Why He Uses Knovel

Knovel helps Sri understand the physical forces that caused the problem, and the relevant properties of the part's material in the conditions it broke.

Key Insights

- Searches on desktop, then once he finds titles, will search for them by title in the mobile app (Android tablet + phone). Desktop search, for example, can filter by type of result (research papers only).
- If no decent result in the first “3 or 4”, he’ll edit his search rather than continue to page through results
- Sometimes he can browse the Table of Contents and read the title description to evaluate it, but sometimes he has to browse through a few chapters
- Searching a title for a word gives you the matching chapters, but wants to see all mentions of the search
- Might choose title based on author, recommendation from a co-worker, or Amazon reviews
- Used interactive equations once - main benefit was adjusting an input and watching the output change
- Graphs in titles only useful if the equation or data set behind it is included, so he can recreate it if needed
- Would like if the titles had internal hyperlinks (i.e. “as shown in [Figure 18.2...](#)”)
- Prefers swiping between pages over scrolling
- Likes how in Kindle or Google Books you can change font size or colors (white on black for reading at night)
- Uses another Android PDF reader with “read aloud”/text-to-speech feature often
- Likes how Google Books syncs place in books across devices, as well as auto-syncing purchases
- ResearchGate shows a feed of what other users are reading or citing, would like the same in Knovel
- Doesn’t take notes in books per se, but does use a OneNote file per project where he gathers links, screenshots, excerpts, etc.
- Current tutorial/help content is easy to ignore, then hard to find again when you really need it
- Wants to customize My Knovel view (current, thumbs only, text only) and put titles in groups/folders