Mobile Extensions Research Findings

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Scope

Research Goal

Evaluate the mobile phone extensions entry point in the workflow menu for discoverability and usability

Research Questions

- How do users who need to edit files on mobile navigate the Dropbox mobile app?
- What do users expect from and how do they use the Edit Button?
- How do users approach moving files from the Dropbox mobile app to other apps?

Why Does This Matter?

- Adobe Acrobat mobile, one of our main editing extensions, just released editing capability to mobile as a part of the Adobe Acrobat Pro subscription at the end of July 2019
- iOS 13 changes the Activity menu to have rich contextual sharing and open actions, releasing in September 2019
- iOS 13 changes the permissions flow for adding Dropbox to the deep integration to the Apple Files app, which allows files to be searched and suggested with Siri
- **As mobile becomes more central in current and emerging markets for productivity tools, Dropbox needs to remain competitive in providing users with the powerful mobile workflows they need.**

Findings; TLDR

💎 All participants only reported editing on mobile **if they absolutely have to**, such as urgent or routing job matters on the go.

→ [See more here](#)

- ○ Users who were screened as freelancers, consultants, or executives had all of their work apps loaded to their phone, but trusted mobile experiences less for critical work.
- ○ 💡 **How might we make editing seamless and approachable to increase WCU activity on mobile?**

💎 While editing on mobile, all participants expressed wanting to **stay in the Dropbox mobile app** for their document editing and signature needs.

→ See more here

- ○ Participants generally were okay leaving the app for sending or sharing purposes.
- ○ 💡 **How might we keep users in the Dropbox app and keep document context while switching apps?**

💎 Most participants were **not able to find the [Edit Button](#)** on the Dropbox mobile app.

→ See more here

- ○ Users gave up trying to find the edit button and were stuck in the activity. These were users who routinely referred to files but have not reported editing them.
- ○ 💡 **How might we make the edit CTA and button more clear to increase the editing feature usage?**

💎 Participants **rely on the Export Button and [native activity prompt](#)** to edit their document by opening the document in another app

→ See more here

- ○ Exporting and editing workflows are convoluted and require an operating understanding of how documents are passed around apps in mobile.
- ○ 💡 **How might we leverage Apple's native activity menus and File apps to increase activity on the Dropbox mobile app?**

Session Details

Discussion Outline

See details here: +Mobile Extensions User Research

Session Overview

Part 1: Edit button discoverability and open flows (5 users).	**Part 2:** Testing PDF editing workflows (4 users).	**Part 3:** Testing PDF editing workflows with Dropbox and Google Drive mobile (2 users).

Users screened to be general Dropbox users for RWW.
 	
These users were shown two edit button icons and a redesigned mobile extensions menu.
	Users screened for being Dropbox mobile **users who reference documents.**
	
	These users were given the job to:
	  ○ Save a PDF to their personal Dropbox account
	  ○ Add a signature to the PDF using the Edit Button
	  ○ Edit a PDF's title using the Edit Button
		Users screened for being Dropbox mobile **users who frequently edit files on mobile.**
		
		These users were given the job to:
		  ○ Save a PDF to their personal Dropbox and Google Drive account
		  ○ Add a signature to the PDF using Dropbox and Google Drive apps
		  ○ Edit a PDF's title using Dropbox and Google Drive apps

About Mobile Extensions Pathways

Before we jump in, let's understand the three ways to access extensions on the Dropbox mobile app:
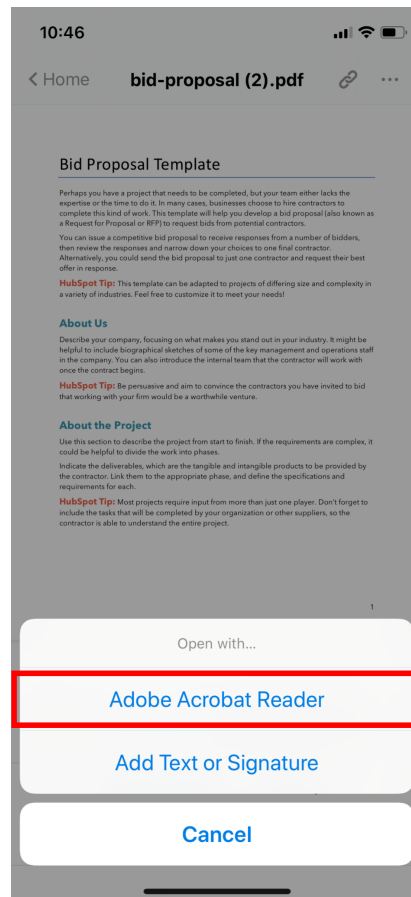
1. Edit Button

This button opens our current Mobile Extensions menu. Our two "Open with..." options are to open the document in the Adobe PDF app, which has a deep integration to automatically save back to Dropbox.
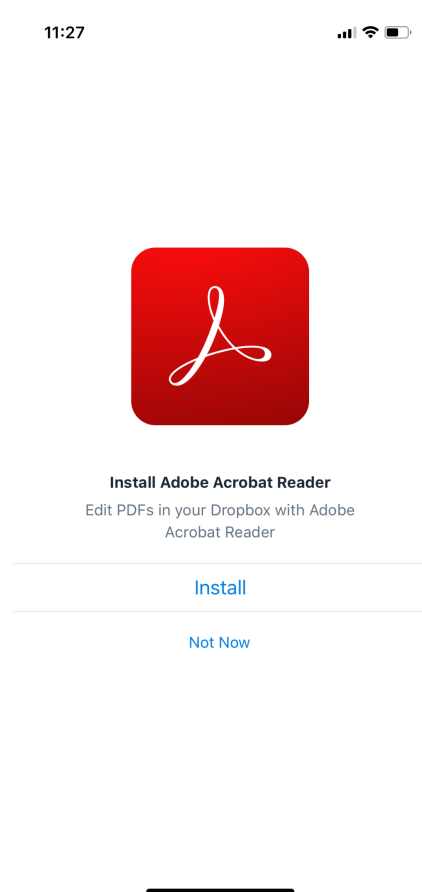
Adobe Acrobat Reader:


Current Edit Button

Current Dropbox Extensions Menu

Interstitial Install App Prompt

## 2. Export Button: Native Activity Menu

This button exports the document to open the native activity menu in iOS. This gives the user two rows of options: the top row, of custom app activities, and the bottom, of native utilities. As you can see just looking at the design of this menu, there are overlap between the options in these two rows functionally.
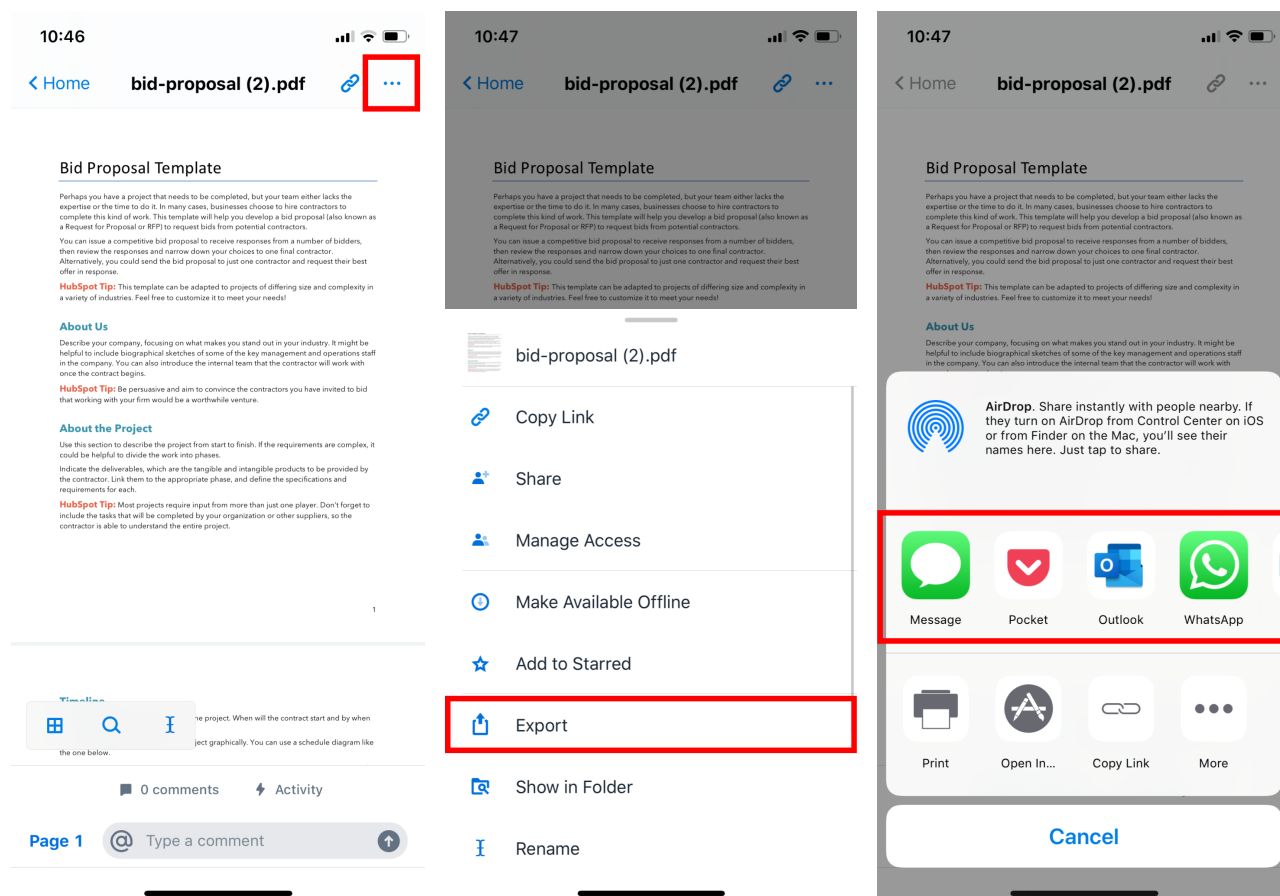

3. Export Button: "Open In" Menu

In the bottom row of the native activity menu we find Open In.

- This opens another distinct menu, with functions to open the document in another app again at the top, and utilities specifically related to the document's context in the bottom row
- This is a convoluted menu that repeats functions and has overlap in many options.
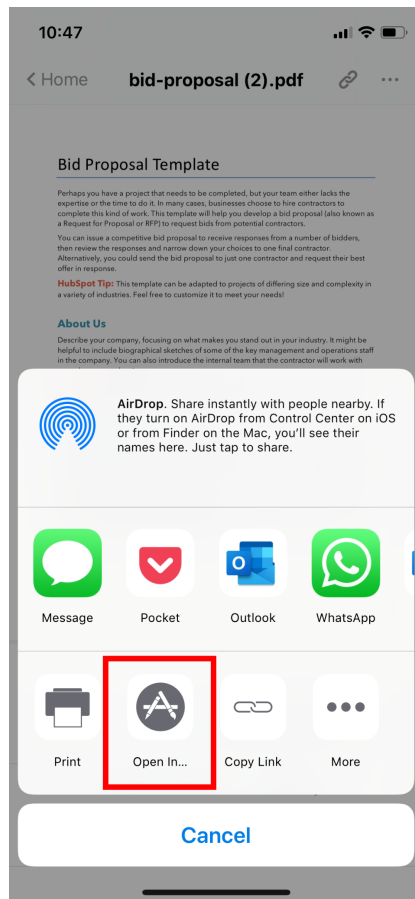
Native "Open In" Another App Button
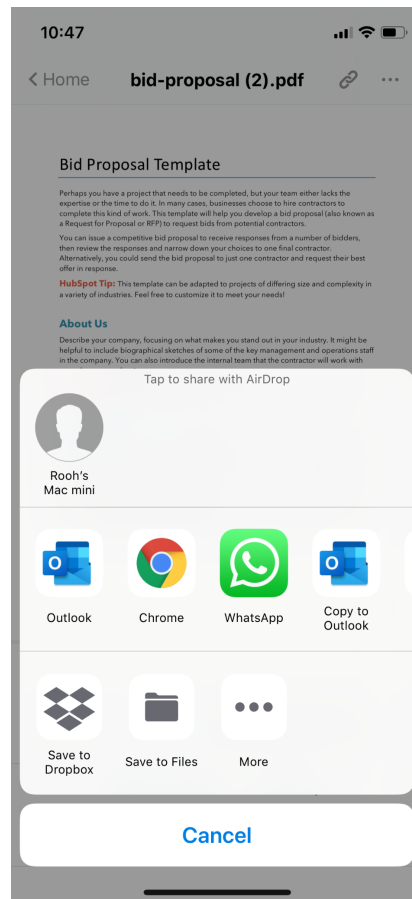
Native "Open In" Another App options (Apps above, utility actions below)
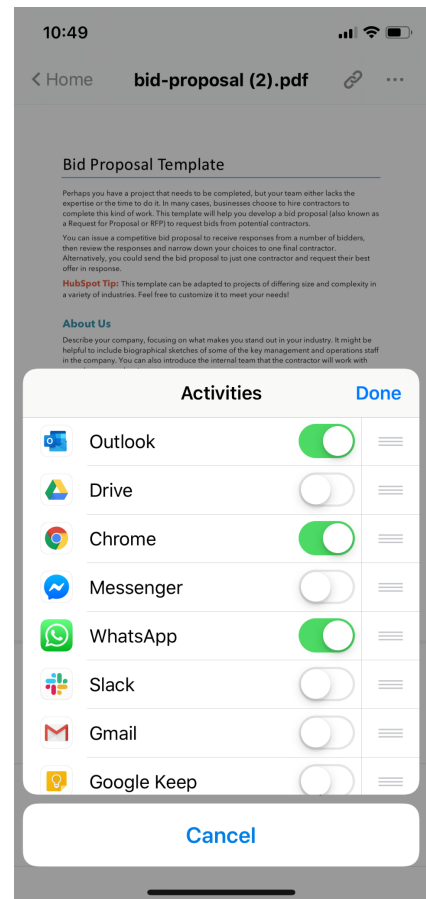
Users must manually choose the apps that they want to appear in this menu

Learnings

Mobile App Usage for Work

Here, we asked participants about their general mobile app usage for work.

Learning 1: All participants only reported editing on mobile **if they absolutely have to**, such as urgent or routing job matters on the go.

> *"Basically, I do everything I do on my desktop on my phone. That's the nature of my job. If I'm out and about in or out of office, I'm definitely on Slack writing*

> *messages or emails back to clients."*

> *"I've tried editing on mobile. I maintain a website on Squarespace I tried to edit one component of our website on my phone and I deleted entire section. So I'm never going to edit my phone again."*

> *""I have a fear of pressing the wrong button with my thumbs. Just ease of work space, like I like to have a screen and just do what I'm used to doing, you know, using hotkeys and whatnot. But as far as viewing a document or responding to an email that's I feel like can be done on my phone."*

- Users who were screened as freelancers, consultants, or executives had all of their work apps loaded to their phone, but trusted mobile experiences less for critical work.
- 💡 **How might we make editing seamless and approachable to increase WCU activity on mobile?**

PDF Editing Activity

Users were asked to edit a PDF's title on the Dropbox mobile app.

Learning 2: All participants expressed wanting to **stay in the Dropbox mobile app** for their document editing and signature needs.

> *"I think it's, it's too many steps. It definitely feels like I'm going to Adobe to edit it. I'm pretty flexible kind of guy and I'm very used to these kinds of situations in apps."*

> *"I am normally hesitant to do heavy editing on mobile. Aside from communication and adding attachments, if I needed to change something, I probably would be like, okay, I need to get back home or back to the office updated. But I love to be able to do this really easily. But I just, you know, don't. In my mind, it's like, that doesn't exist."*

- Participants generally were okay leaving the app for sending or sharing purposes, but found it cumbersome to bounce around apps.
- Participants' expectations were confused in terms of the a document saving automatically to Dropbox versus needing to save the document manually.

- Participants were unsure if they needed to make a copy of a document to open it in another app and save it back manually, especially because of their mistrust for mobile editing.

https://www.dropbox.com/s/p4jplqvtlqwwr6z/EditButtonADobe.mp4?dl=0

Participant with iOS 13 beta attempts to edit PDF title using Dropbox mobile extensions

- 💡 **How might we keep users in the Dropbox app and keep document context while switching apps?**

Learning 3: All participants but two were **not able to find the** Edit Button on the Dropbox mobile app.

> *"Opening in Adobe that expects it to me to open an app, what I'd love to be able to see actually it'd be like edit, and Dropbox and then go in and, you know, change the signature line or change the company name. God, I would do that all the time."*

- Users gave up trying to find the edit button and were stuck in the activity. These were users who routinely referred to files but have not reported editing them.
- 💡 **How might we make the edit CTA and button more clear to increase the editing feature usage?**

PDF Signature Activity

Users were asked to edit the title of a PDF from the preview screen on Dropbox mobile:

Learning 4: Participants **rely on the Export Button and** native activity prompt to edit their document by opening the document in another app

> *"I don't know how much I'm going to be able to edit. I've got the feeling sign thing going on here. But I'm I don't know if I'll be able to edit this PDF using this app. Yeah. Looks like over annotation tools. But I don't think I've got edit capabilities in*

> *here. Which is something I probably should have considered earlier on. But as sometimes the path of least resistance includes assumptions, my part."*

- Exporting and editing workflows are convoluted and require an operating understanding of how documents are passed around apps in mobile.
- 💡 **How might we leverage Apple's native activity menus and File apps to increase activity on the Dropbox mobile app?**

Learning 5: Participants who used Android had a notably harder time finding relevant apps to sign and edit the PDF document from the Dropbox surface.

- On Android, there seem to be a lot more native menus and surfaces to open and export a document to another app.

https://www.dropbox.com/s/9fzeolkrtwv9ybi/Android%20Dropbox%20Editing.mp4?dl=0

Google Pixel user attempts to follow edit button workflow to change PDF title

- 💡 **How might we design experiences for current and future versions of Android to compete with Google Drive's deep native integrations on Android devices?**

Editing and Adding Signature in Google Drive mobile

Participants were asked to save a PDF to Google Drive mobile and edit the title of the PDF

Here, a participant saved a file from their Apple Mail app and saved it into Google Drive using iOS 13, showing the changes in the native activity menu and the limitations of the Google Drive app:

https://www.dropbox.com/s/k3dcpvrqbu0ne1h/GoogleDriveiOS13%20Open%20With%20.mp4?dl=0

Participant with iOS 13 beta saves file to Google Drive and attempts to edit PDF title

Here, we can notice the Dropbox mobile's visual language has many more options out in the open without having to go into a laundry-list menu.

- 💡 **Dropbox has an opportunity to be an editing-oriented app**, deeply integrated with the most popular mobile productivity apps not only through Apple's native activity menu, but our choices in facilitating editing for the user through mobile extensions.

Recommendations

Here are my recommendations pertaining to the main friction points identified.

Friction Point: Leaving the Dropbox mobile app to open a document in another app

- Add a notification or banner letting users know that they're opening the same document in another app.
- Clearly communicate to users that there's no need to save the document manually or make a copy.

## Friction Point: Signing into another app to use its functionality (e.g. Adobe Acrobat)

- We need to try our best to educate users about context switches and show them the value of the app they are switching to, giving transparency into the background work of transferring a document over.
- We need to show that there is a deep link to the partner app even after sign in, as some users thought that the sign in meant that they'd have to manually import the file to the app after they set it up.

Users need to be prompted to add Dropbox to iOS 13's Files app

- Asking users to enable Dropbox to be in their files system after installing the app is crucial to Dropbox's discoverability in iOS 13's Siri suggestions and Spotlight search.

- This means that if someone searches for a file, or wants to attach a Dropbox file to their email, all their Dropbox files will be natively integrated in their phone/tablet.

Adding Dropbox to the Files app on iOS:
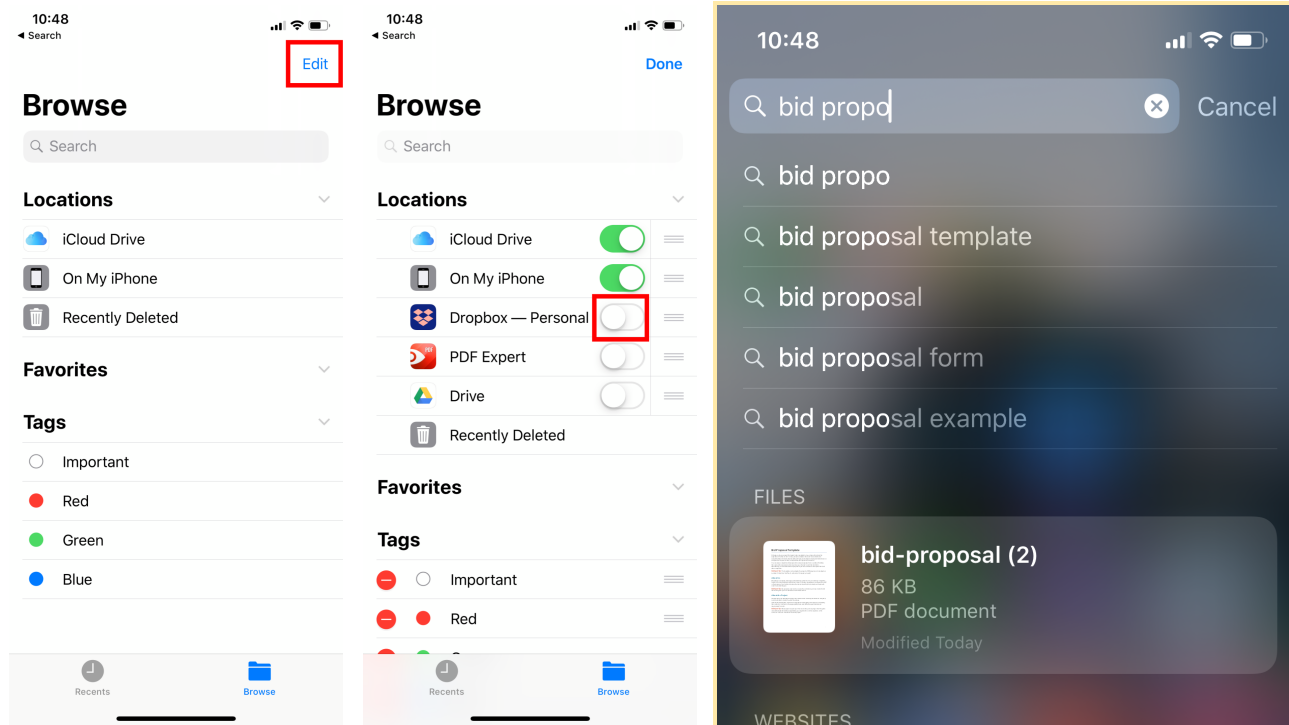
Pretty hidden flow!

Switch Dropbox on...

The only way Dropbox files show in search on iOS is the Files integration being turned on manually

Next Steps

What We Still Need To Find Out
- How mobile fits into Enterprise users' needs for work apps and their use cases
- Understanding where users drop-off the editing process after the barriers of leaving the Dropbox surface or needing to sign-in to another app
- Understanding where to put deeper integrations into the onboarding flows to educate users and make the editing and signature functions more accessible