Parley: Translation & Messaging - Milestone 2

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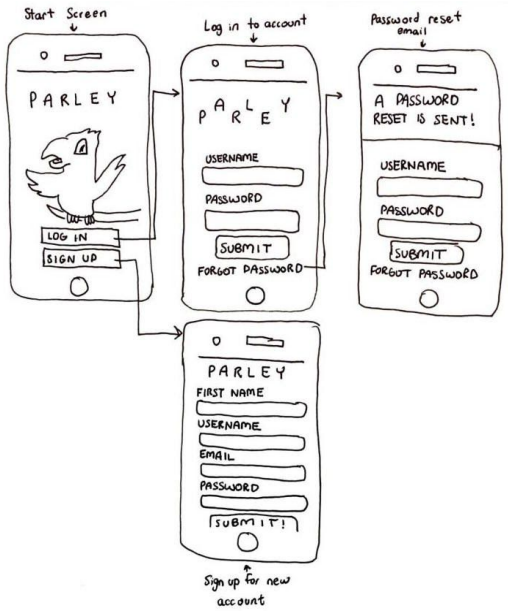
UI Prototypes

Our app has three main pages: a messaging page, a PenPal search page, and a user profile and settings page. Users are also greeted with a login/account creation page when the app is first opened. In addition, we need a way to tie these pages together through a page navigation method. The following sections walk through 2-4 design variations for each of these features and discuss the benefits and drawbacks of each.

Login Page

Design Idea 1:

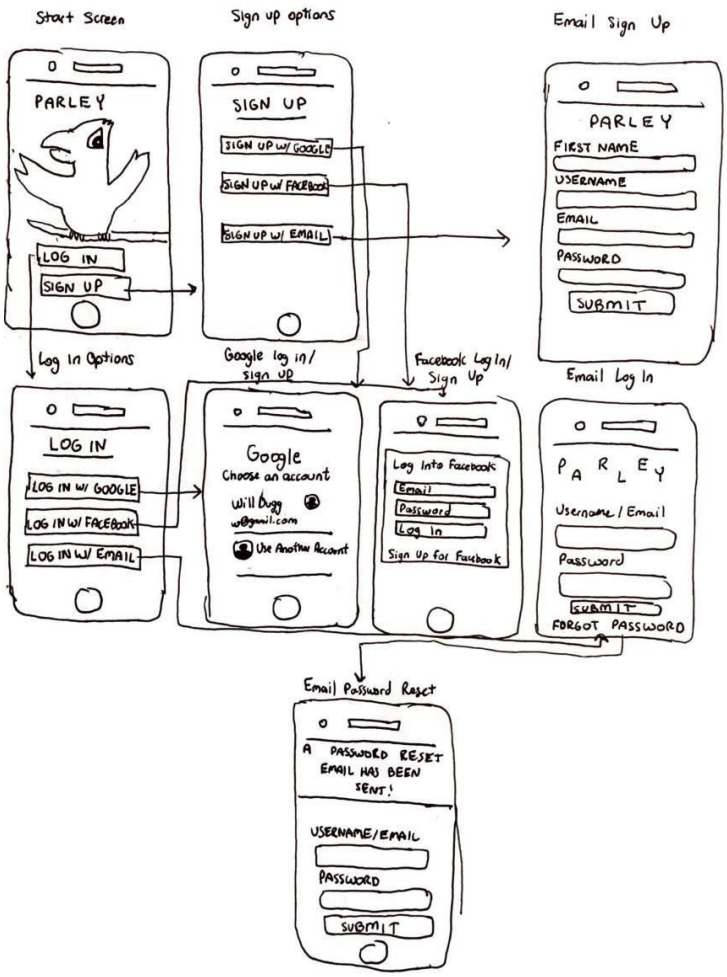


Design Idea 1 shows a login interface that allows for a user to log into an account using an email and password. The first page will show a user login and sign-up buttons. If the user wishes to sign up

they will be directed to a sign-up form that asks for a user's first name, username, email, and password. Once a user submits the form, these fields will be used to create a user object with which the app will access information about contacts, previous conversations, and account-specific settings. The other button allows the user to log-in to an account. The user will have to input a username and password. If a user has forgotten their password, an alert will show the user that a password reset email has been sent to them. An alert will be easily seen by a user and is used nowhere else in the application, making it easy to see for a user who has forgotten their password to see.

The primary benefit of this design is simplicity. Users will not be directed to outside of app APIs, so there is less room for a user to become frustrated by third party API interfaces. Additionally, this simplistic design will allow for streamlined users which are created the same way. Since all users are created in the same manner, all profiles will have the same fields filled out at the time of account creation, which would be a benefit for this design.

Design Idea 2:



The second design implements all the features of the first design, so users can still sign-up and login using an email. However, the second design also implements a sign-up and login with both Facebook and Google. Since the second design allows for a user to choose their login/sign-up method it also adds an additional page to the login/sign-up process where a user chooses which login/sign-up method they would like to use. If a user chooses to login/sign-up with Google or Facebook, the app will take them to the website of their desired login/sign-up method. The user can then sign-in to their Facebook or Google account to login to their account or complete the sign-up process.

This design has the disadvantage of loss of simplicity. Users will need to go through an additional page asking their login/sign-up method before they are allowed to login/sign-up. Additionally, it may be difficult to use the interfaces of the third party. Further, it is impossible for a user to switch their login method after they have created an account, meaning their account is tied to another app for the duration of their use of Parley.

Although the design does suffer from these disadvantages, the team decided that the pros outweigh the cons. Design two allows for users to create their account in multiple ways, allowing for an ultimately easier login/sign-in process. If a user already possesses an account from a built-in sign-up/login method they can quickly and easily access their account in the future and easily create an account. Therefore, the additional utility and accessibility of design two make it preferable to design one.

Navigation

Once the user has access to the app, they will need to know how to navigate through the various internal pages. We propose three design ideas for basic page navigation:

Design Idea 1:

search for contact →

recent conversations →

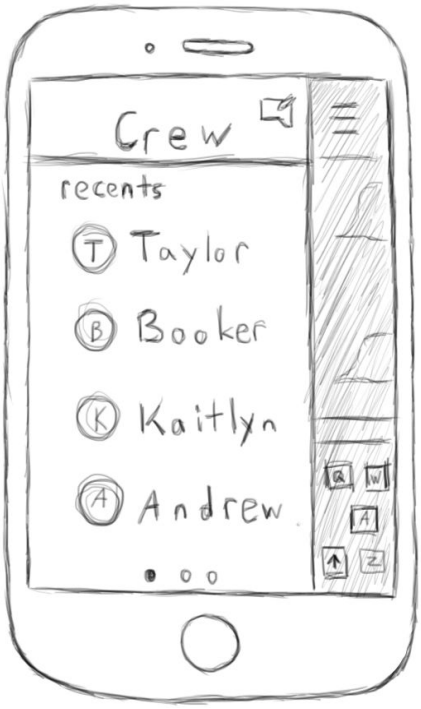
← start a new conversation

navigation bar that includes (left to right) contact page, PenPal search page, profile page ←

Design Idea 1 displays a contact page that takes up the entirety of the screen and features a horizontal navigation bar at the bottom. Contacts, or your "crew" as we refer to them, would be listed in order of most recent conversation. As shown above, Taylor is the person this user has most recently had a conversation with, and if the user would like to message Taylor and/or see their conversation, they would simply click the horizontal strip labeled "Taylor". By using the search bar, the user can search through all of their contacts and conversations, and by pressing the message button in the upper right hand corner the user can start a new conversation. The navigation bar at the bottom displays icons that when pressed will take the user to another page of the app, with options being contacts and messaging (the current page), the PenPal search page, and the profile page.

A few benefits of this design include the fact that it appears very similar to the iPhone messaging layout and is very intuitive, so the user will easily understand how this menu functions. The layout is most likely something they've seen many times before. Also, the fact that the menu takes up the entire screen allows for all icons and words to be fairly large and easily readable. However, a drawback of this design is that there is no way to keep a current conversation open while navigating through other menus. If someone needs to update their profile, they have to close out of their current conversation and come back to the contacts menu, then go to the profile page, then do that in reverse if they want to get back to the conversation. In this sense, the navigation might be easy to understand, but it is not very efficient.

Design Idea 2:



← start a new conversation

← when the 3 horizontal lines are pressed, this menu/navigation page slides out from left

Recent conversations →

navigation to other pages accomplished through swiping →

Design Idea 2 uses a sliding menu that utilizes swiping as a means of navigation. From any conversation, the user can press the three horizontal lines that would be in the upper left corner of the screen to expand the menu. It would slide out from the right and take up most of the screen but not all, allowing the user to quickly tap back into their current conversation at any time. The current menu screen that is displayed is the contacts page that lists people the user has interacted with most recently first. When a name is pressed, the user is taken to their conversation with that person. If the user would like to start a new conversation, they can press the message button in the upper right corner of the menu to search for and select a contact to message. Although this design lacks a navigation bar, three circles at the bottom of the screen indicate the pages that can be swiped through. The current page (contacts/messaging) is indicated by a filled in circle, while the other pages (PenPal search and profile) are represented by empty circles.

The ability to re-enter the current conversation from any menu page is a definite benefit of this design. It makes the app much more efficient if the user needs to, for example, update their profile, but then jump right back into their current conversation without navigating through all the menus first. In addition, the lack of a navigation bar gives this menu design a sleeker, more simplified appearance. However, it also makes it easy for the user to forget what the other menu options are and where everything is located. Perhaps after using the app for a while, the user would remember what order the pages are in, but the design is less intuitive than a navigation bar.

Design Idea 3:

navigation bar consisting of:
contacts →

PenPal search →

profile →

recent conversations →

← start a new conversation

← when the 3 horizontal lines are pressed, this menu/navigation page slides out from left

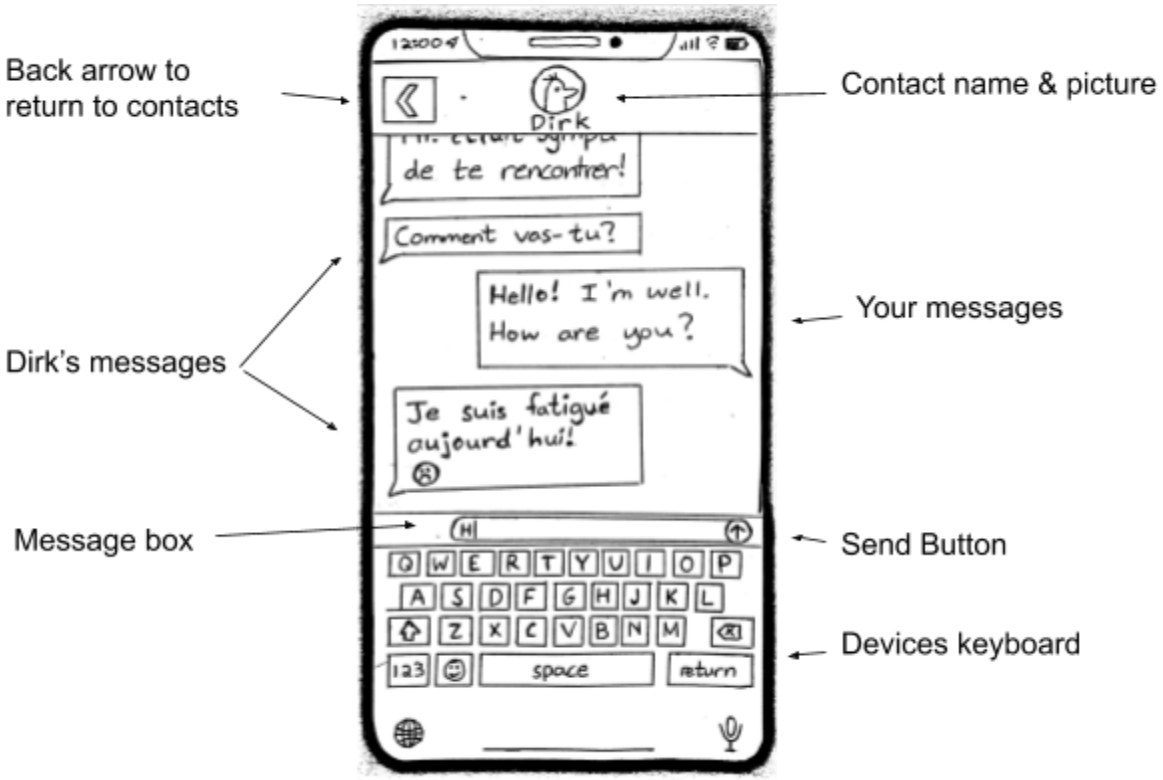
Design Idea 3 utilizes a sliding menu similar to Design Idea 2, however, this design also features a vertical navigation bar. From any conversation, the user can press the three horizontal lines that would be in the upper left corner of the screen to expand the menu. It would slide out from the right and take up most of the screen but not all, allowing the user to quickly tap back into their current conversation at any time. The current menu displays a list of all contacts, with the most recent people the user has interacted with listed first. When a name is pressed, the user is taken to their conversation with that person. The search bar allows the user to search for a specific contact, and the message button in the upper right gives the user the ability to start a new conversation. A defining feature of this design is the vertical navigation bar on the left. It displays icons for all menu pages including contacts/messaging (the current page), PenPal search, and profile. When one is pressed, the user is taken to the desired page of the menu.

Just like Design Idea 2, one of the main benefits of this design is the ability to access your current conversation from any menu page. The fact that the user does not have to close out of their messages to use other menus makes for a more efficient application. In a departure from the last design though, a vertical navigation bar has also been added to the menu. The use of icons makes the task of navigating menu pages easily understandable as it is clear where each page can be found. However, with an already smaller menu that doesn't take up the full screen, the navigation bar creates a fairly messy, crowded interface. There is also a lot of wasted space at the bottom of the navigation bar that further supports the fact that this is not the most efficient use of screen space.

We believe Design Idea 1 to be the overall best option as it is the most space efficient and easily learnable for new users. With this design as the base, we will most likely improve upon it by taking some of the best aspects from the designs that were less successful. In order to make Design Idea 1 more time efficient, we can incorporate the idea of being able to re-enter one's current conversation from any menu page. This adjustment will enable users to navigate the app both quickly and easily, and will focus the user's experience on the messaging portion of Parley.

Messaging

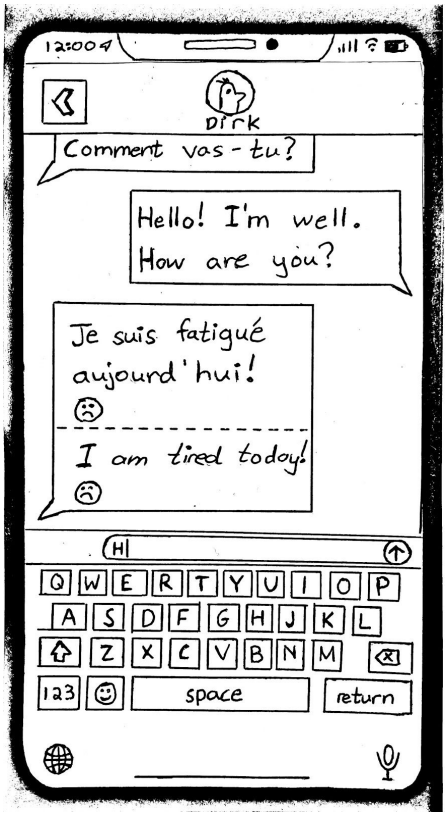
Parley's primary functionality is found within its messaging and translating features. Thus, we considered a lot of different design choices for the main messaging page. In order to maximize the utility of the design, we have split the messaging page into modular pieces and will select the most effective choice of each piece. Below is the basic messaging structure of the app:



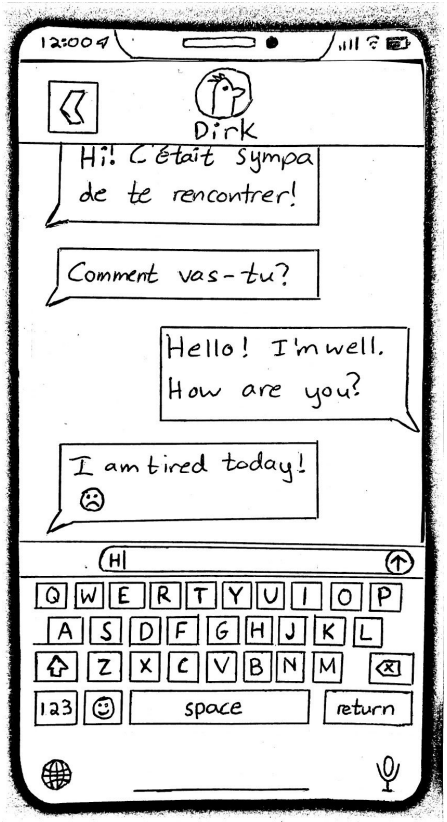
For many reasons, we felt it extremely important to build our messaging interface to look and feel very similar to existing messaging applications. Users are familiar and comfortable with how to send and receive messages on their devices. Changing the fundamental design of the messages too much would frustrate and alienate users. Because of this, all of the familiar components of a messaging app are present, including the contact's name and photo at the top of the screen and a back arrow to return to the "crew" page. Messages are read chronologically from top to bottom, with the user's messages on the right and the other user's on the left. On the lower portion of the screen, a message box allows the user to type a new message. The device's built-in keyboard will allow the user to type in their preferred language. When a message is ready to send, the user simply presses the send button next to their message.

With this baseline, we now consider adding the translation functionality that makes Parley unique. It is important to make the new functions easy to navigate while not obscuring the basic look of the messaging interface. Below are several design choices that needed to be made.

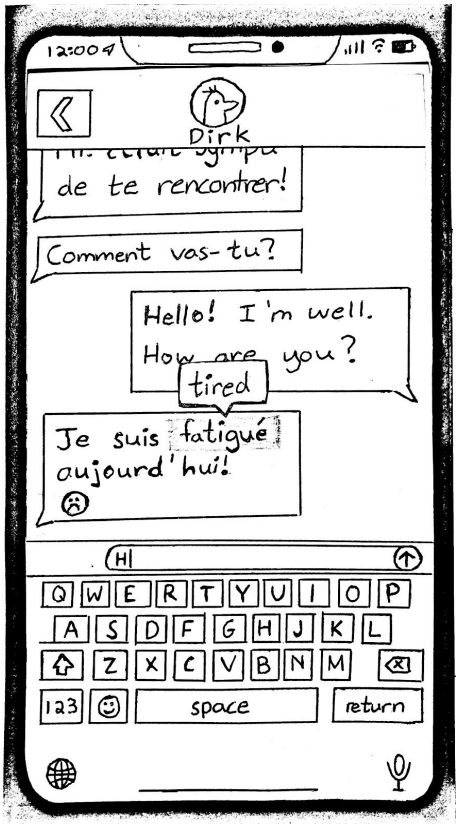
Translation View



Design (a)



Design (b)



Design (c)

When we polled our potential users for Milestone 1, we received a lot of ideas for how translated messages could be viewed. Thus, the first messaging design choice to consider is the display of translations. Above are examples of three distinct design options. Consider you are texting your friend, Dirk. You speak English, but Dirk speaks and texts in French. If you wanted to see what Dirk's messages said in English, this is what they might look like. In design (a), the translation of a message is shown underneath the original, separated by a dotted line and a change in background color. In this example, you see that Dirk's message, "Je suis fatigué aujourd'hui!" has been translated into "I am tired today!" In design (b), translated messages simply replace the original message. You no longer see Dirk's French text, and instead are left viewing only the English version. In design (c), messages are translated one word at a time. Users can select a single word by highlighting it and viewing the translation into their native language. In this case, you highlight "fatigué" in order to see the word "tired."

Design (a) is ideal for users who are starting out learning a language. They are easily able to compare the messages in each language and see how words and sentence structure change when

translated. However, for users who are more experienced in the foreign language or who have no desire to learn it, the design is quite clunky. These users likely only want to read the conversation. Having the message translation and original message appear clutters up the screen and increases the amount of scrolling the user needs to do to read their messages.

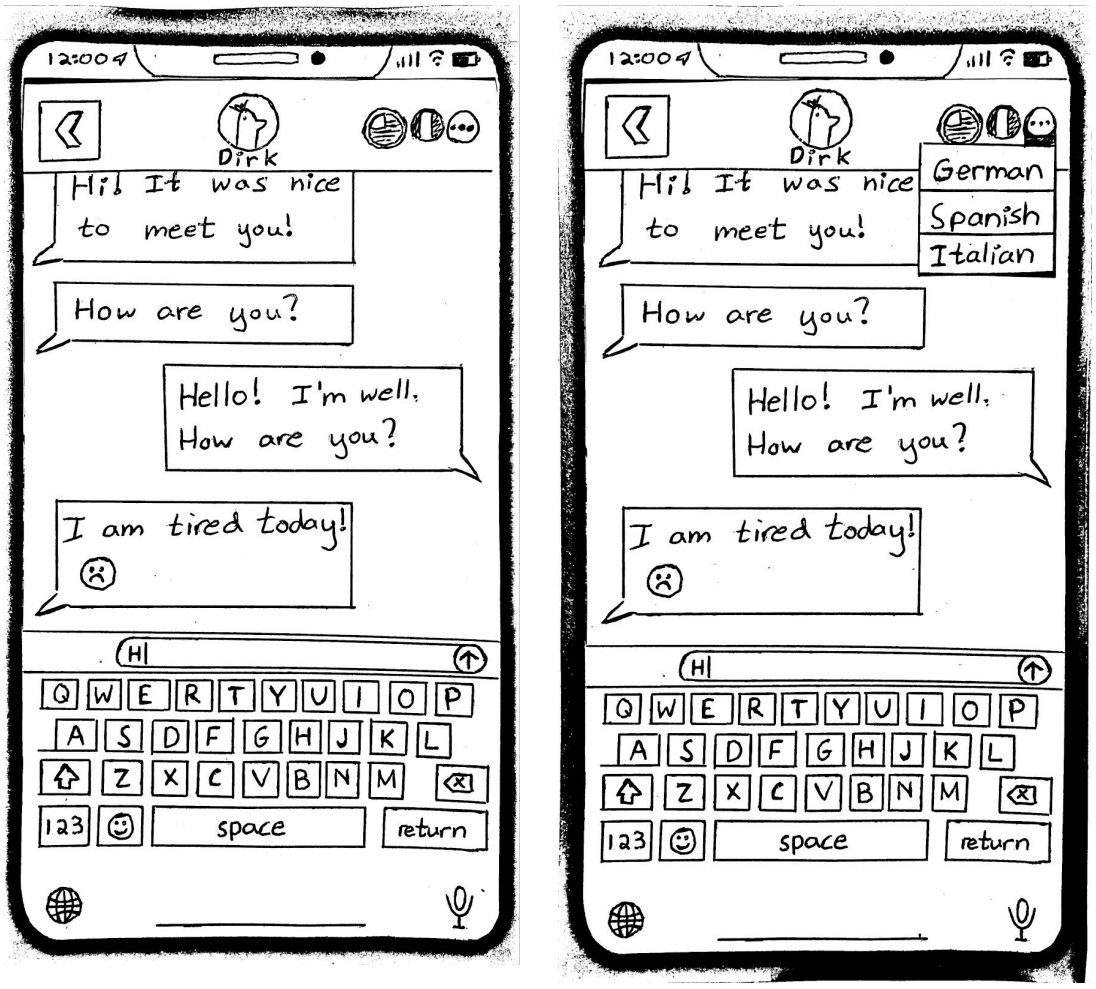
Design (b) attempts to fix this issue by only displaying either the original message or its translation. This design is slightly worse for language learning, as the user can never view both languages at the same time for easy comparison. Thus, if this design is chosen, it is imperative that the method for switching between the translation and the original message (described below) is super simple and takes minimal time. Design (b) does benefit users who wish to have a conversation in their own language without need for learning the language via the translations. The design is less cluttered and easy to understand.

Design (c), in which each word can be translated individually, is not without its merits. By allowing users to learn one word at a time, this design is effective for people who are brand new to a language. At the same time, it may be beneficial for users who are nearly experts in a language and only need help with a few tricky vocabulary words. However, for the average user, the design is clunky and difficult to use. If a user wanted to understand a whole message, they would need to spend time clicking on each individual word as well as store the meaning of each word in their short-term memory. That is asking too much of users who are simply looking to read messages.

Because of its relative easy functionality and broad appeal to users, design (b) will be the main design we use going forward. It is, however, possible that we revisit both (a) and (c) in the future as possible alternative display options.

Translation Activation

Now that we know what translated messages will look like, we need to decide how the messages will be translated by the user. We again propose three potential designs.

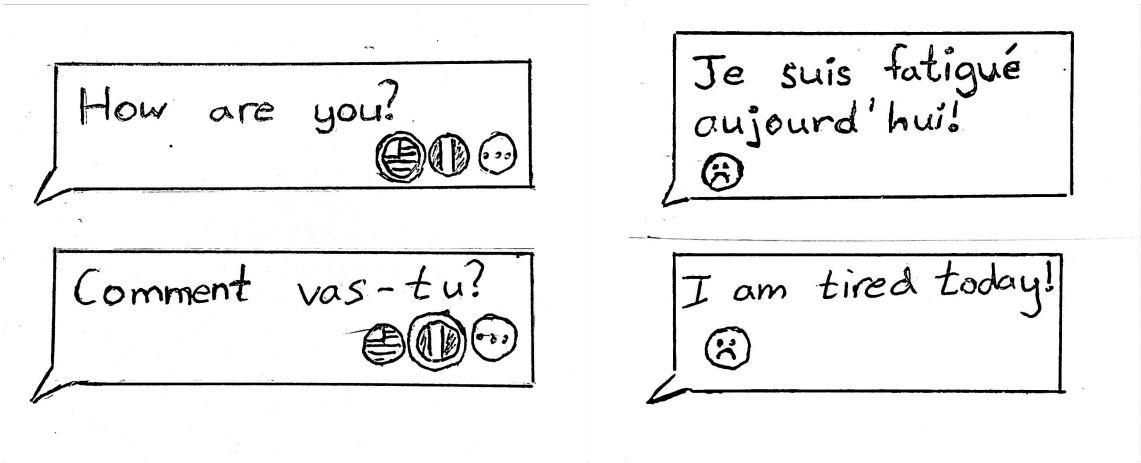


Design (a)

In this first option, a user can instantaneously translate an entire conversation using buttons in the top right of the screen. Returning to our example, this design allows a user to choose between translating the conversation entirely into English, French, or another language. The user selects the language by pressing on the flag of the corresponding country. This causes a colored ring to appear around that flag and all of the messages to appear in that language. By default, the flag of each user appears. If the user wants to add a third language, they can press on the "..." button to select from a list of recently used languages, as seen above on the right. This design is useful for users who want to simply read a conversation in their native language, while providing an option to see the original language used. However, for language learners, translating the whole conversation every time does not provide enough flexibility for learning.

In design (b) (below, left), messages are translated in a similar manner as (a) but one at a time. Thus, each message contains the flag icons in the bottom right and can be translated by selecting the corresponding flag. In this design, it is very clear how to translate the messages. That clarity comes at the

cost of a crowded screen filled with flag icons. If, in the future, group chats are enabled, this could lead to many flags on every message. Additionally, the flag buttons will be fairly small, so pressing them will be very time consuming in accordance with Fitt's law (small buttons take longer to press). This solution is modified in design (c) (below, right). In the improved design, messages themselves become the buttons to press to translate. Thus, the buttons are much easier to click and the screen is less crowded with flag icons. The downside to this approach is that there is little indication that pressing the messages will translate them. Additionally, this option does not provide an easy way to choose a third language, instead cycling between your language and the recipient's language.

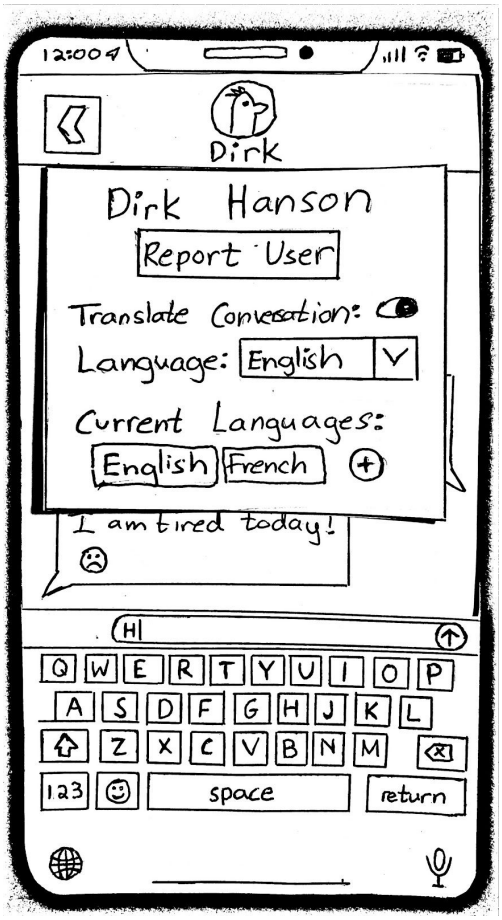


Design (b) Design (c)

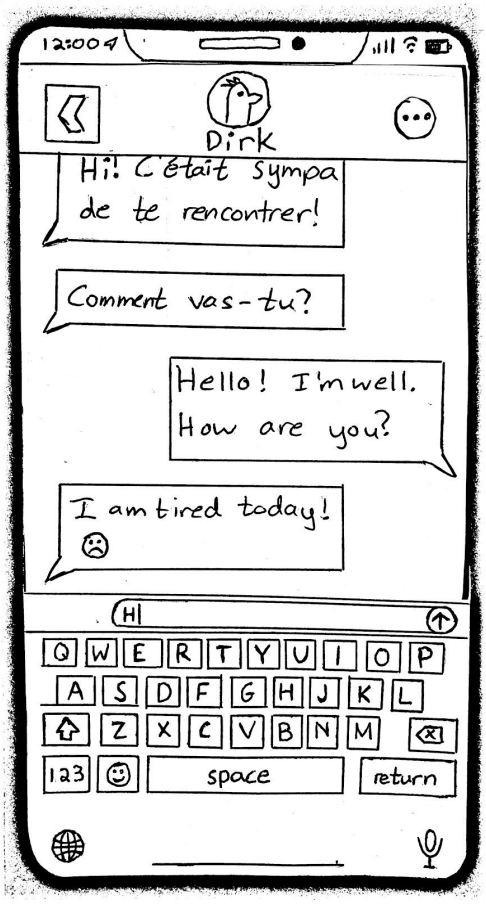
Ultimately, we decided to proceed with option (c), albeit with some important distinctions. In order to make sure it is clear to all users how to translate messages, we are hoping to implement a tutorial for new users to clearly show the functionality of the app. Additionally, seeing as we do want to appeal to users who wish to translate the entire conversation, we will include such an option separately in the next section.

Message Options

Like most messaging services, there are some options we would like to have appear for each conversation. These options are ones that users may not wish to use universally and so can be set for each person you want to message.



Design (a)

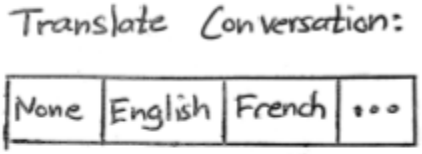


Design (b)

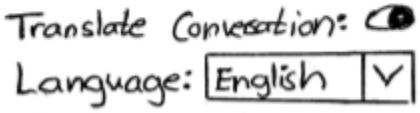
First, we must consider how to view these options. In design (a), the user presses on their contact's name or photo and a box of options drops down. They can then click outside of the box to close it. In option (b), the user presses a (...) button in the upper right corner to display the same options on a separate page. These two options mostly differ aesthetically, and we decided to use design (a) to keep everything on one page and to mirror similar functionality as found in Apple's iMessage.

We now turn to the content of the message options.

Design (a)



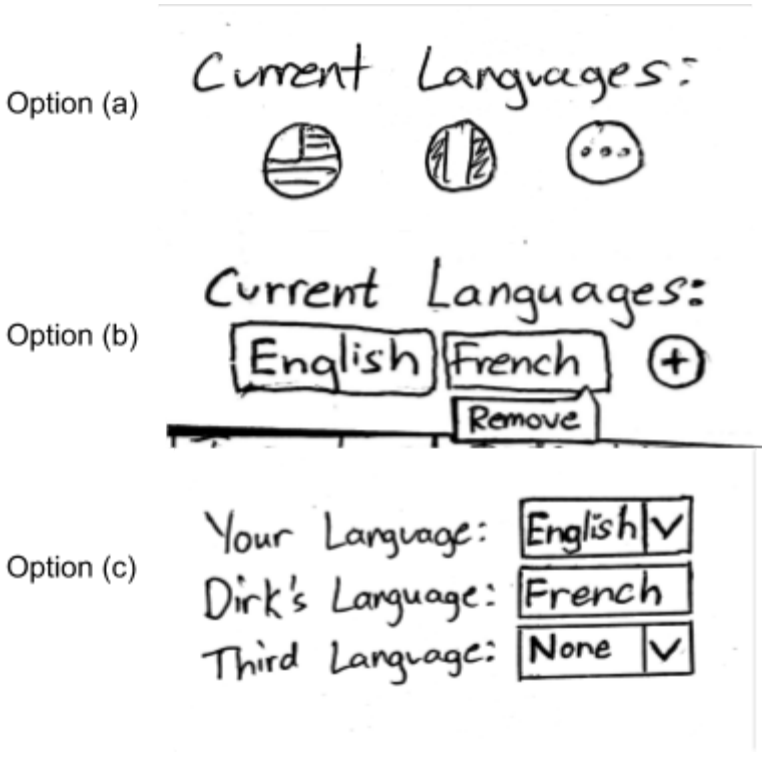
Design (b)



Design (c)

As stated above, we decided to include a conversation translation option in this menu. Here, we break it down further into three different options. Design (a) works as described in the previous section, with flags that can be chosen to determine the language. If no flags are selected, then no translation occurs. Option (b) is similar, but with boxes containing the language name rather than

flags, including a “None” box to turn off translation. Design (c) includes a toggle to determine whether or not to translate the whole conversation and then a drop down menu to select the language by name. In design (a), it is unclear to the user whether or not the conversation is currently being translated, and if it is, how to turn it off. It also relies on flags to represent languages, which can get confusing when a language does not necessarily match up with a specific nationality. Option (b) solves those problems by providing language names rather than flags as well as a clear “None” option. However, option (c) not only contains language names, but also a very clear toggle for turning the feature on and off. Thus, we decided option (c) will be the best for Parley.



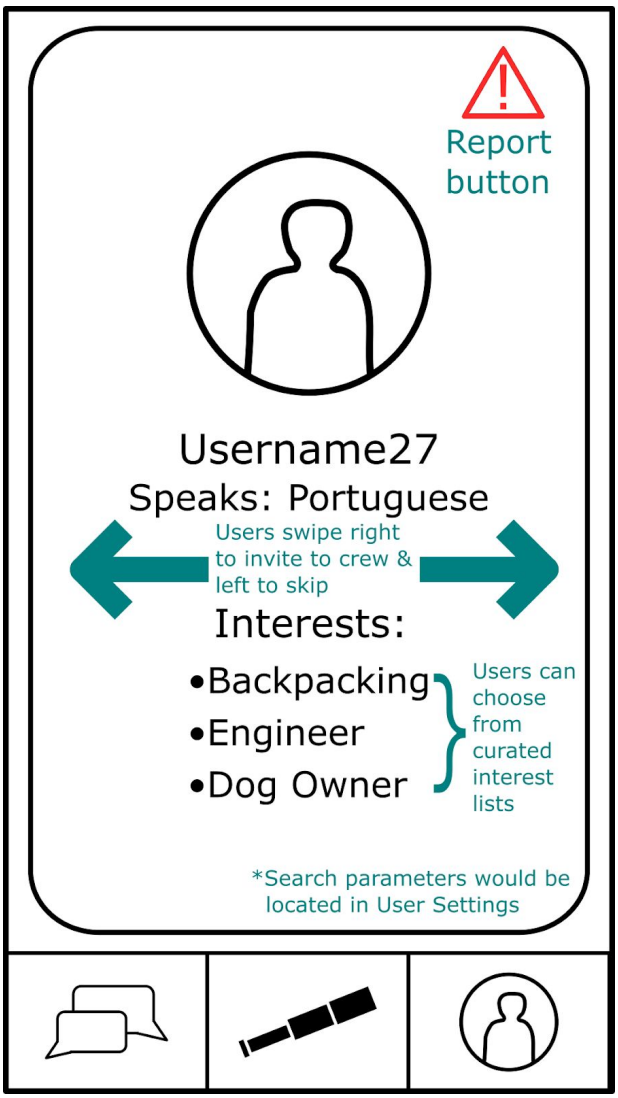
Our team also discussed a similar option to change the current languages for individual message translation, in particular since there will not be the flag options on each message. Thus, any languages selected in this option will be cycled through when pressing a message. In option (a), the flag buttons function as they have before, but fall into the same pitfalls as well. They are unclear and small buttons to press. In option (b), current languages can be added and removed as text boxes. This makes the choices clearer, but users may find difficulty in adding and removing multiple languages. In option (c), the option is explained easier, with your language and Dirk’s language clearly labeled, as well as an optional third language for individual translation. However, this option only allows for three languages to be selected at once.

Our team actually ended up choosing option (d), none of the above, for this feature. Once we have our app up and running, we may revisit this feature to see if any of the above options make more sense. For now, we will allow users to translate individual messages between the two native languages of the messaging parties. If a user wishes to use a third language, they can do so by translating the whole conversation as described above. The main reason for this choice was to keep our app simple and focused at the start. Our primary concern is to translate between two languages, so we will focus on that for now.

One very important button on this options menu is the “Report User” button. Because we want this option to be accessed easily and simply, we will include it as a red button underneath the user’s name. Other options for this messaging page may come up as we develop a working prototype.

PenPal Search

Design A



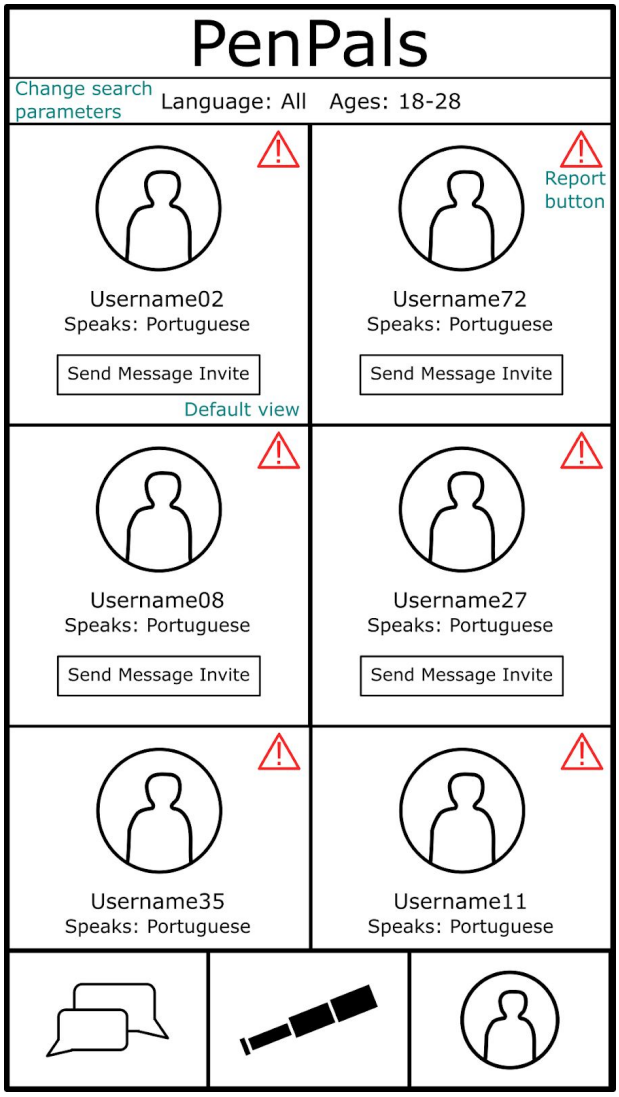
The initial design for PenPal search was inspired by apps that feature a card-swiping system to find “matches.” Users are presented with a single card that showcases another user’s profile.

While other apps utilizing this system allow users to feature several pictures, we did not include this feature to prevent spam and inappropriate content. For the same reason, we limited the “interests” section to consist of curated options that users can select from instead of typing in anything they want. Our profiles emphasize a user’s native language and interests versus appearance and more personal information to protect privacy and maintain a friendly environment.

There are a few advantages to this system. The use of single-profile cards allows users to not be distracted by other users’ profiles while deciding whether they want to connect with their current featured user. The entire screen can be dedicated to laying out a profile, leaving enough room to not crowd and overwhelm the user. The user only has to make one decision per page: whether or not to send a message invite.

However, there are also some disadvantages to this system. Users are unable to compare the current account to other accounts and may wish to come back to the featured account later- something that

can't happen if they have already swiped left on an account. Search parameters also have to be moved to the user settings page. In addition, sifting through accounts one page at a time can take significantly more time than scrolling through a list of profiles. Finally, we also wanted to distance our brand from apps that use the card-swiping system as these apps are typically dating apps.



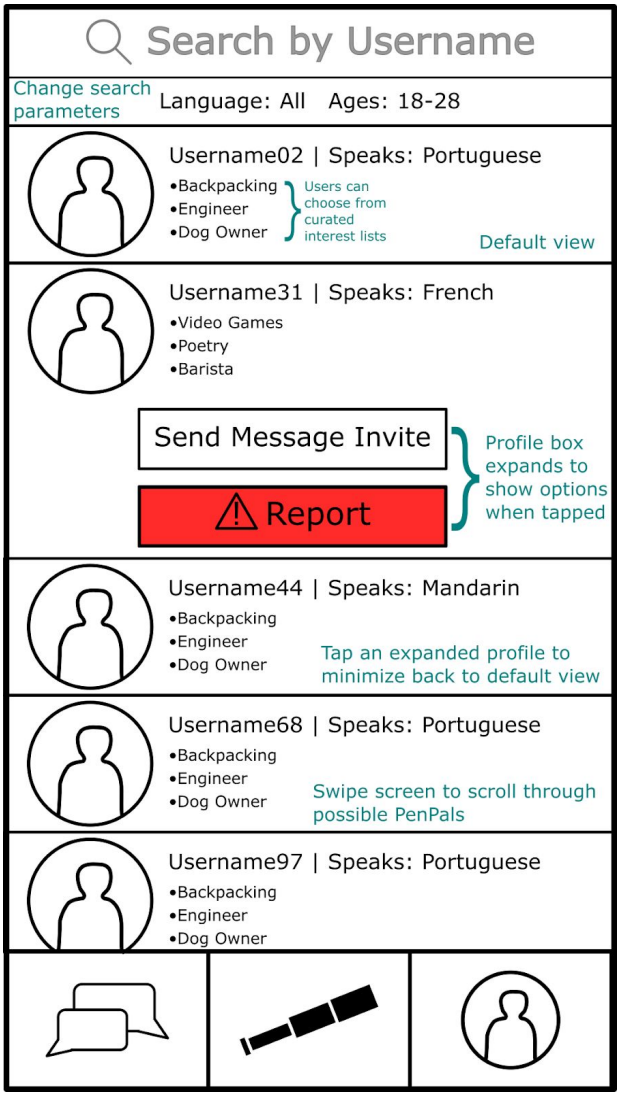
Design B

Our second design is an attempt to bring several user profiles onto the screen at once to allow for a quicker search and more direct comparison. This design introduces a more square profile layout.

The design succeeds in bringing almost six full profiles onto the page at once. Users are able to swipe to scroll through more profiles, allowing for quick comparisons and the ability to return to an earlier profile with ease. The search parameters have also been added to the page at the top to allow users to limit their search to their desired languages and age group.

However, the design comes with some caveats. In order to fit several profiles on screen at once as well as swiping right no longer being the input to send a message, the "interests" section had to be removed and replaced with a "send message invite" button. This limitation means that a pop-up may be necessary when one of the profiles is tapped to bring up a list of interests. However, this contradicts the intention of creating a quicker way to browse and compare profiles.

Design C



Our final design addresses issues with both Design A and Design B. Instead of formatting user profiles within squares, we opted to use a list of rectangles that take up the entire width of the page and less height. We also replaced the header with a "search by username" field to find specific users.

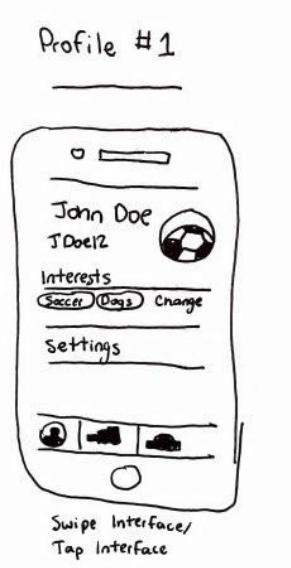
With this new design, we were able to have a minimized profile that re-introduces interests on the default view and allows for an easy expansion by tapping on the profile. Unlike squares, which would require a pop-up to show more information, these rectangular profiles can simply expand downward to reveal the "send message invite" and "report" buttons, shifting the subsequent profiles lower.

This design is more intuitive because you can see all the information you need without any further input, and if you do decide to send a message invite or spot a reason to report the profile, you tap on the profile to reveal the two actions. This design also allows for about six minimized profiles to appear on the page at once, which is the same number as Design B, meaning this design would not take any more time to scroll through profiles than Design B. Unlike Design A, this design maintains the ability to scroll back to an earlier profile, directly compare profiles, and change the search parameters from the same page. Also, unlike Design B, this design features user interests on each profile so users can talk to someone with similar interests and a less-intrusive way to expand each profile.

Overall, Design C incorporates the best of both worlds from Design A and Design B while introducing some new features. Thus, Design C is the design we will be moving forward with for our Parley software prototype.

User Profile:

Design 1:



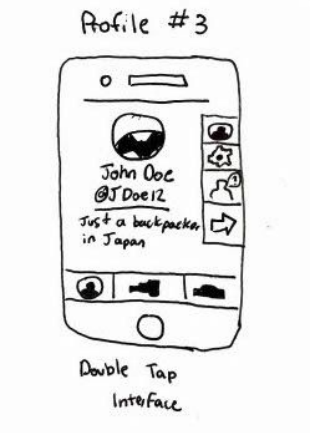
The profile is designed to show the user their current profile, their selected interests, and their chosen settings. The user should also be able to switch between their profile, search, and chats from this screen. The three designs primarily deal with the way in which a user can switch between these two separate groups of in-app features. The first design allows a user to change their interests on the profile page, and swipe to switch between the setting and profile screen. In the first design, the user will tap the profile, search, and chat tabs across the bottom to switch between these features.

The first design benefits from an intuitive swipe between settings and profile. In order to reach the settings page, the screen will transition as if swiped. The user will then realize that in order to return to the profile page, they will likely need to swipe. Additionally, it has the feature of tapping the bottom to switch between profile, chat, and search, which is implemented in other pages in the application. This would also be intuitive for users who saw this feature in other sections of the app.

Design 2:

The second design allows users to switch between profile, settings, and interests across the bottom of the screen. In order to switch between profile, search, and chat a user would have to swipe. This design suffers from the disadvantage of being unintuitive. On other pages within the web app, the user taps the bottom of the screen to switch between profile, chat, and search. Switching this functionality to swipe instead of tapping could be confusing and initiative for users. Additionally, it is not intuitive for users to know that they need to swipe to change between profile, interests, and settings. Unless a user swiped by accident and discovered this functionality, it is likely that they would never swipe the screen and discover that they could change their interests or settings. Therefore, design one is better than design two because it is much more intuitive.

Design 3:



Finally, design three implements a “double-tap” interface. Buttons are placed on the bottom and side of the screen. A user can tap along the bottom of the screen in order to access the profile, settings, and interests. They can tap along the bottom of the screen to access the profile, search, and chat functionality. This design is more intuitive than the design one and design two. It is very clear that a user can tap either the side or top menu to access the feature they would need. Additionally, features are grouped by functionality, so the dual menus would not be confusing. However, design three suffers from a cluttered look. The user would likely be annoyed by “too much going on” on the screen. Therefore, even though the swipe may be more unintuitive, it is the better option to allow for simplicity and separating of concerns, allowing for the user to have a better experience. Due to these reasons, the group decided that option one is the best choice.

Conclusion

Now that each of Parley’s pages has been examined and the best designs selected, our app will consist of the integration of all of these solutions. We opted to deconstruct the app by page in order to build the final app out of the best designs of each section. Because the designs were still made in a group setting, they all will fit together seamlessly in our final design. In the next milestones, we will use what we learned and decided here to build and test a working prototype of Parley.