

Nexmail - Final Report

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Problem and Solution overview

Email is the most widely user method for exchange digital message. People use email every day and for many different purposes. Working professional heavily rely on email for their daily tasks and communication. A portion of their time is spent on coping with the existing system; participating in long email conversation, finding precise information they are looking for, making replies, etc. We aim to improve that experience by making it faster, easy to use and intuitive, so that they spend less time on long emails and get more stuff done.

Prototype

The main features of our functionality include:

1. Allow Users to filter the entire conversation by a specific person
2. Allow Users to have quick access to different parts of the conversation with our new scroll bar
3. Allow Users to read and make inline replies efficiently, without much clutter

Though our major functionality resides in the reading pane of an email client view, we still created some basic layouts of a typical email client screen so that the interactions feel natural for the user. Below is the first screen of our Prototype:

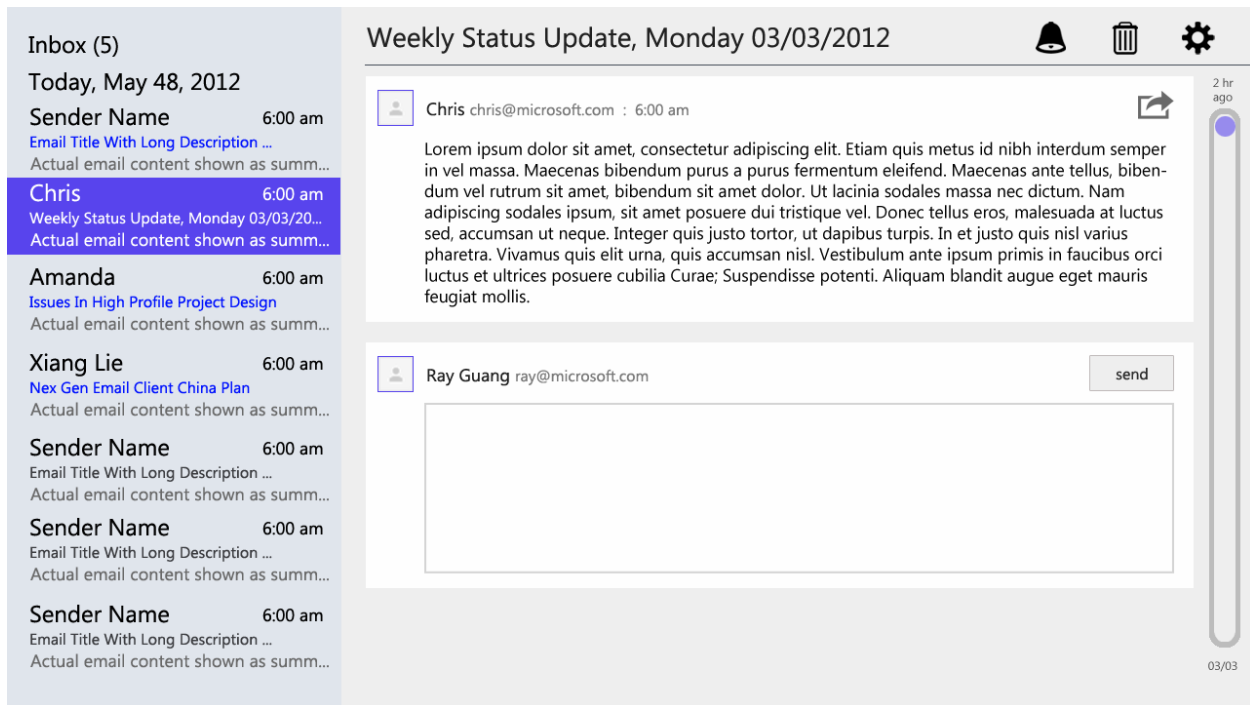


Figure 1: A Typical Email Client Screen

The Left column is showing a list view of all the latest emails in user Inbox. The Right Column represents the Reading Pane of the selected email. Since our main improvements are targeted toward the reading pane, I will NOT describe the list view much, it is there more for the reason of completeness. Let us dive into the Reading Pane section, as highlighted in the Figure below:

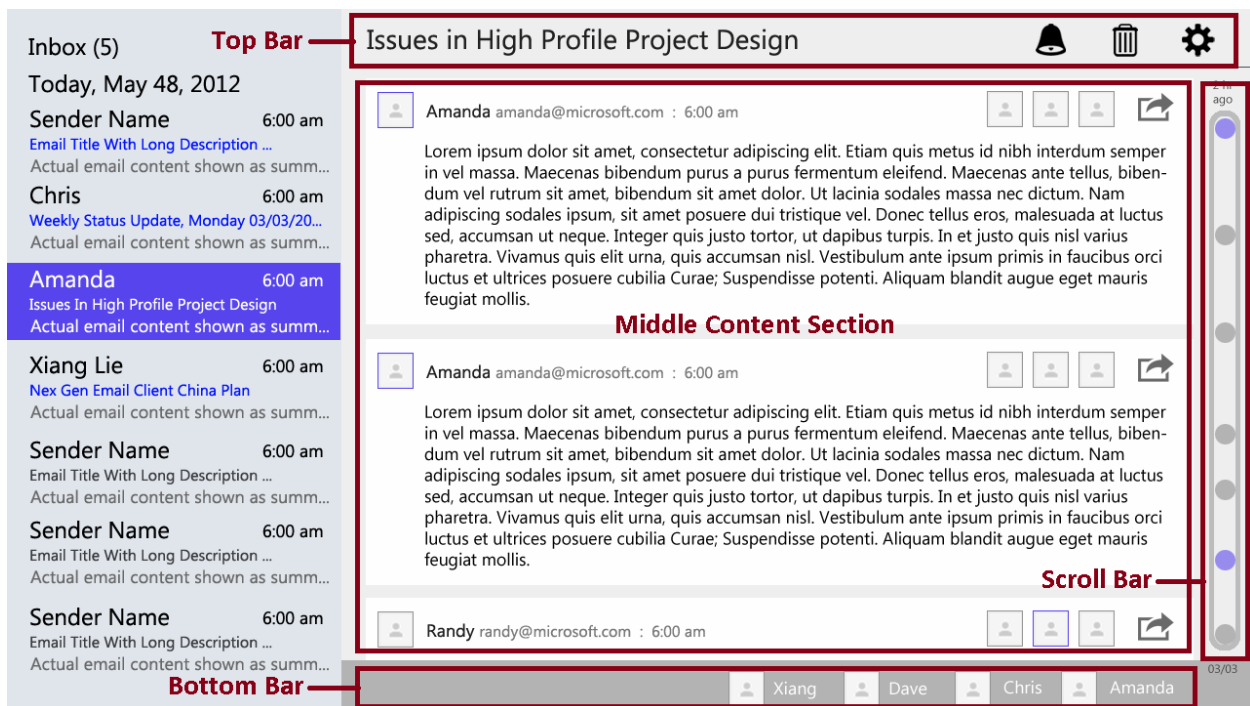


Figure 2: Reading Pane Sections

1. **Top Bar:** Showing the Subject of the email and few other icons (not implemented – outside the scope of the prototype). The left most section of this title bar is also used for show different messages to the user to give him active feedback related to this actions. Currently, the only implemented message is “Message is successfully sent” which appears when the user sends a message.
2. **Middle Content Section:** This section contains the individual replies of the entire conversation. Each reply has a header, showing Sender Info (Picture, Name & Email) and the Recipients. It also shows a Reply Icon, allowing the user to reply to a particular message rather than the latest one. Below the header, you will see the message body. When Replying to a message, as soon as user starts making an in-line reply, the sender identity automatically appears before that his comments and the font also changes allowing it to differentiate it from the original message. See the Figure below as the reference:

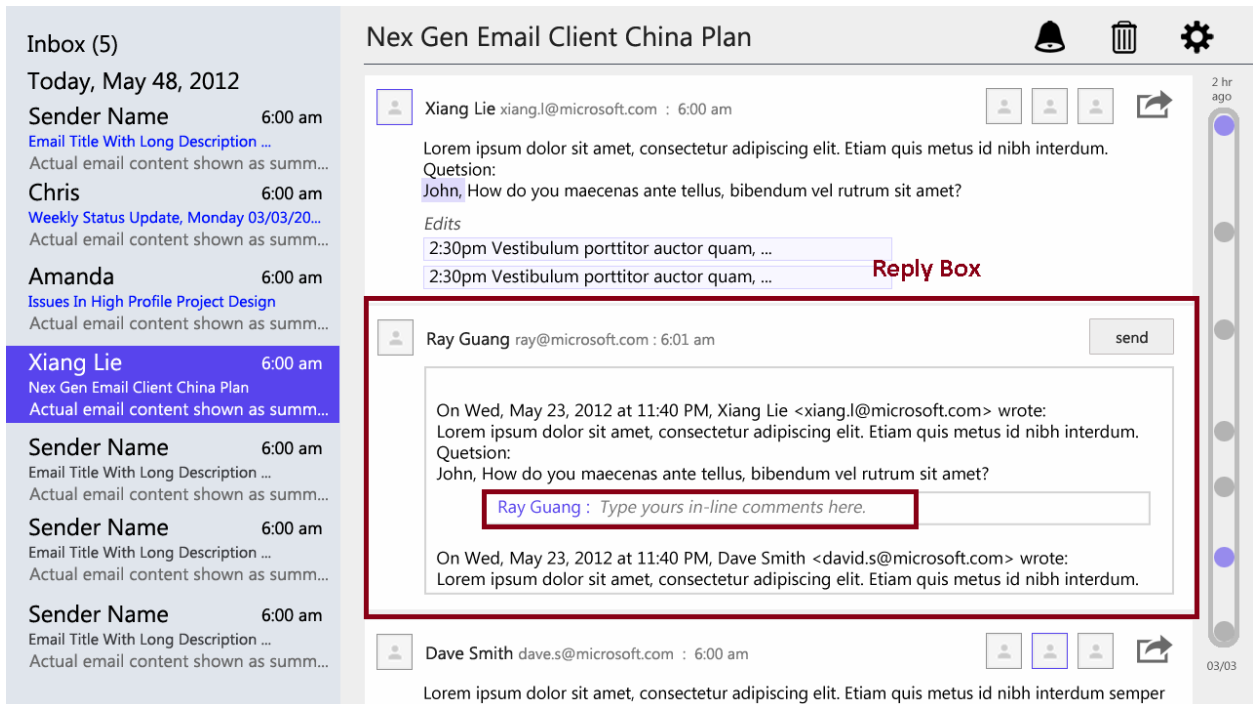


Figure 3: In-Line Reply Section

3. **Scroll Bar Section:** This contains our new scroll bar. Each dot on the scroll bar represents an individual message in the entire conversation. So, by looking at the scroll bar, user would know readily how many messages are there in this conversation. Plus, there dots are clickable/touchable. When you select a dot, it scrolls the middle contact section to the message corresponding to that dot. That gives a quick way to the user in moving across different parts of the conversation.

4. **Bottom Bar:** This section shows all the participants involved in the conversation. By selecting a specific Participant, the middle content view is updated to show the replies from that Person only and replies from others gets collapse. This allows the user to focus on a particular person, when browsing through a long email conversation. The following figure shows how the view is updated when a user selects Dave from the Participants list, the replies from other participants gets collapsed, leaving only Dave’s response as expanded:

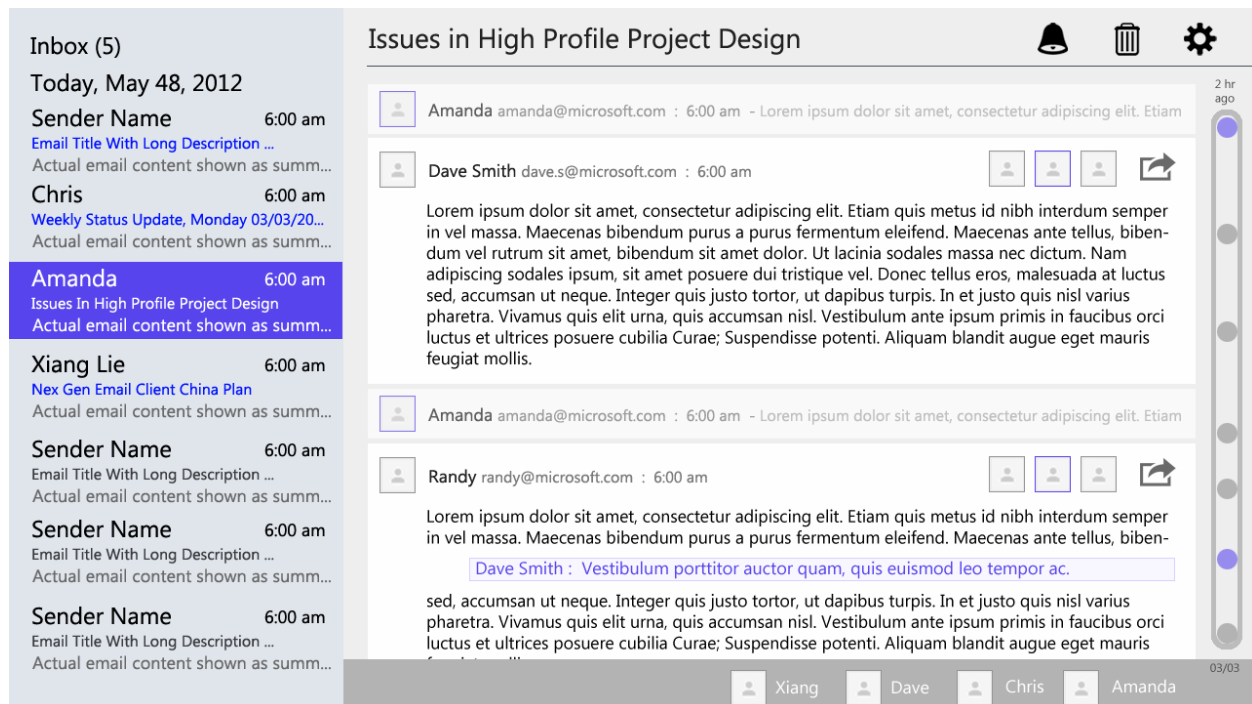


Figure 4: Conversation Filtered by Dave

In addition to the screens referenced above, we prepared some supplementary material to help us run the prototype:

1. **Long Email Conversation Cut-out:** This was used to simulate user scrolling during the testing
2. **“Message Successfully Sent” Cut-out:** Whenever user sent a message, we pasted this message on top right corner of the reading pane to communicate that his action was completed
3. **“Feature not implemented” Dialogue Box:** Whenever user tried to do something that wasn’t implemented, we showed this message screen to the user.
4. **Blank cut-outs:** We had a couple of blank cutouts pasted on the places where user would write his response message. Once we were done with one user, we replaced those with blank ones before testing with the next user.

High-Level User Interaction

User will start with Home Screen (Figure 1). From the email list view, he will select the message he needs to look at. Then he will interact with the email conversation with the scroll bar, or with the Participant filtering option at the bottom of the reading pane. We will reply the message either in the given reply box or sometimes makes an in-line reply.

The following figure gives a snapshot of the screens used in our prototype:

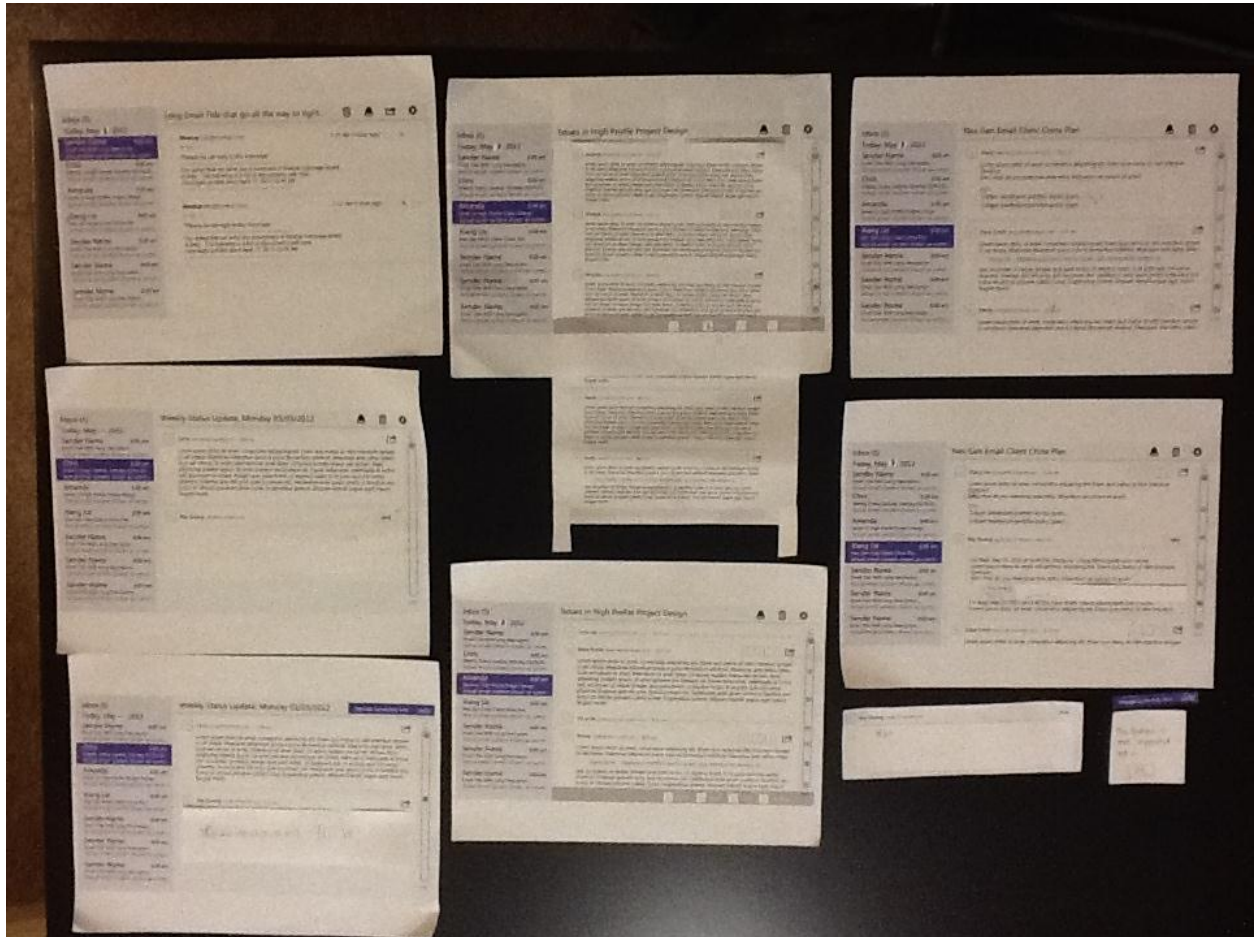


Figure 5: Paper Prototype Screens

Testing Method

a) Participants

Since our major focus was towards providing fast navigation of long email threads and providing efficient ways of reading and making in-replies, we were mainly looking for people who

frequently engage in long email conversations, i.e. their volume of emails are higher and there single email conversation is also longer. Because these are the people who have to spend a considerable amount of time over email and are in the most need of an efficient solution. Keeping this objective in mind, below are the participants we chose:

John, our first participant, is in his late 20's and is working as a Software Engineer for 7 years now. Email has been an integral part of his professional life. He participates in roughly 10 to 15, rather long, discussions every week and spends almost an hour of his working day over email. Based on these credentials, he was a good representative sample of our target audience.

Dave, our second participant, is in his 40s and owns a local business in Redmond area. He is also a very active member in the local community, helping out in many local organizations. He has been working for 15 years now and email has been a very important part of his professional life. He is one of the heavy email users, receiving around 100 or so emails every day and participating in around 10 or so long emails discussions every week. According to him, catching up with emails has always been a challenge for him. When we introduced our project to him, he was very excited about it.

Richard is our third participant. He's recent college grad and has been working for half year. He receives more than 50 emails a day. And he participates in about 5 long email conversations. His email load makes him a good candidate for our testing.

Victor is our fourth participant. He's a software engineering, and has been working for four years. He's very much an email guy. He likes to communicate over email, and spend a lot time to ensure his email is grammatically correct, phrased correctly, and with right text formatting. We think he would be a good participant, and provide critical feedback.

Nick is our fifth participant. He's a software engineering, also has been working for four years. He's also a heavy email user. As Engineer, he's more business mind oriented. We think he might provide some feedback with different perspective.

b) Environment

Dave goes through his majority of emails at two times of the day. Once, during the start of the day, where he focuses more on the triaging of the emails (e.g. based on subject, importance, etc.) and once at the end of the day when he actually takes time to read through the entire conversation and make most of the replies. Since the second portion resonates more with our tasks, we chose to do our testing at the end of his work day. He normally does the second portion at home, but it was not feasible for us to carry out this testing at his, so we picked a place (a community center) outside his home and carried out our testing there. Same was the case with **John**.

Richard usually is pretty busy. We met at his home on a weekend. We talked about the goal, and conducted user studies with paper prototypes. Since Richard does check his mail frequently outside of work, we ask him to use the prototype as if he checking his real work emails.

We asked *Victor* and *Nick* to meet with me, one followed by another, at an office conference room. We presented them with the interactive prototype to do user study. We asked them to settle themselves as if they are checking emails at work.

Our prototype was enough for these participants; we didn't require any other equipment for the process.

c) Tasks

Below are the three tasks that we used during the testing:

Task 1: Easy - Read and Make a Quick Reply

It is Monday morning, 9:15 am. Ray arrives at his office. After settling in, he fired up the email client and started checking his emails. He has been mentoring a new hire, Chris, for few months now. Every Monday, Chris sends out a **Weekly Status Update** to Ray high-lighting his progress over the last week. While going through the emails, Ray quickly spotted the email from Chris. He read through the message, everything looked on-track, so he just thanked Chris for the update.

Task 2: Moderate – Navigate Long Email Thread

Ray is also working on a very high profile project alongside two other engineers, Amanda and Michael. They have been working on the design of the project for a couple of weeks now. There were few open issues which they needed feedback on. Amanda started an email conversation among the all the stake holders, Ray was following and contributing to the discussion until yesterday, when he had to take a day off since he was sick. Today, Ray was feeling better and he decided to show up to work. While walking towards his office, he ran into Amanda who told him that yesterday, their manager had few concerns about the design and was looking for more clarification in some of the areas. Since, Ray worked on that area most; Amanda was relying on him to tackle those and told him that their Manager is anxiously waiting for your response. Hearing this, Ray went straight to his office and fired up his email client. He browsed to the conversation related to “**Issues in High Profile Project Design**”. He looked into the replies just from his Manager, Dave Smith, and responded to him.

Task 3: Difficult – Reply with In-line Comments

Ray works with a partner team in China. Due to the time zone difference, most of the communication between Ray and the China team happens over email. One afternoon, he had to accompany his wife to the doctor, so he arrived late at the office. As always, the first thing we did was checking his emails. He noticed a conversation going-on about the “**Next Gen Email Client China Plan**” project that he is working on with the China Team. He navigated to that email and jumped right to the first message to understand what is going on. He then browsed through the other replies. While going through it, he noticed a question from Xiang Lie. He replied to that **in-line** and continued browsing other messages.

d) Procedure

Roles

We had just two members in the group, one was responsible for running the prototype (acting as the computer), while the other one was acting as the observer, focusing on the user actions and taking notes.

Pre-Testing Preparation

For paper prototype, we prepared all the screens and tasks and ran through all of them ourselves before the actual study; making sure we are not missing any aspect of the interface. We did a dry run of the **Scenarios**, prepared in **Contextual Inquiry** assignment, to see that everything is in place. This exercise actually helped us identify some missing pieces in our prototype, for example we missed out on having the Reply Box for the second task. In addition to the regular prototype screen, we had some extra copies of the screens, some blank pages, *feature not implemented* message screen, glue, whitener and other miscellaneous paper prototyping stuff, in case user make some unexpected moves and we need to come up with something on the fly.

For interactive prototype, the only tool needed is a tablet. We ran through the scenario first to ensure the application is function, and then reset the application to its initial state. We ensure the application is large and visible on the screen so participants can easily spot the application.

Pre-Testing Briefing

Right before the testing, we briefed the user with some high level guidelines of the process including:

- The goal of this testing
- What the paper/interactive prototype is about
- How to navigate through the interface
- How they are, what kind of tasks they will expect.
- They should think aloud
- They shouldn't take it as their evaluation; rather it's our interface's evaluation and etc.

For paper prototype, they were also given a place on a desk that they were asked to take as a screen of their computer. They were also given a pencil to use it as their mouse or touch device and in the places where we wanted them to type their responses, they were told to use the same pencil to actually write their response. For interactive prototype, tablet and their finger are the only tools they would need.

e) Test Measures

During the tasks, the major things that we focused on:

- How much time he is taking before making an action?
- Is he getting the necessary feedback from the system or not?
- Is he interacting with the system the same was we expected him to or is he is coming up with some other ways to achieve the same goal?

- Is he finding the icons, used for various actions, intuitive or not?
- Is he finding the interactions natural or need to literally search for what he has been asked to perform in the given task?
- Is he able to focus on the task that he has been asked to perform or is he getting distracted by the other stuff in the UI, which is insignificant as far as tasks and our testing goals are concerned?
- How many errors he is making in the process of getting to the right option?
- Is he getting stuck?
- Is he confused by some of the interactions or not?
- How he is responding to the paper prototype process?
- Is he taking long pauses during the tasks without saying anything?

After the tasks, we had a debrief session, looking for:

- How the user generally felt about the whole process?
- What are the stuff he liked and what he didn't like?
- Whether the difficulties faced during the tasks are actual interface flaws or are there due to some of the paper prototyping limitations?
- How big was the learning curve for our new features?
- Were the new features real value-add for the user?
- Were there other problems that are more pressing to the user, then the ones we were trying to solve?
- Any suggestions in improving the UX?

Testing Results

a) Filter by Person

Our first participant didn't use the filter option at the bottom on the reading pane, rather he used scrolling to browse through all the messages from his manager – this suggest that the filtering option was not very intuitive for him, maybe we need to add some text or use some other ways to give the indication that he can use can select a person (photo and name) to filter the replies by that person.

The second participant was able to figure out functionality pretty quickly, to him it was quite intuitive and he liked that option a lot.

Our third participant figured out the functionality of the filter option; however he did expressed that it's not that intuitive. In his mind, he was searching everywhere on the UI for a jump navigation function, and he ended up trying that filter button. He also expressed concern that if there are many participants in the conversation, it would not be very visually appealing and not easy to search either.

All of them found this feature helpful, many times during their email browsing, they need to focus on the replies from a particular person and they mentioned that most of the time, that person is their manager.

For our fourth and fifth participants, who used interactive prototype, they figured out the functionality right away. When testing on tablet device, they have tendency to touch different objects on the screen. Even before going into task2, they already touch the people's name in the scroll bar and people's component, and see the effect. They both expressed this feature is neat and handy. Since they already figure out the feature, completing task2 was easy for them. Both participants mentioned they sometimes want to search all email about a person. They suggest it would be a good if they can perform global filter by a person instead of just within an email.

b) Navigation with Scroll Bar

All of our participants were able to understand our new scrollbar design well. Looking at the dots in the scrollbar, they understood that it represented individual replies in the email thread. But, other than the quick access points for first and the last emails, the participants didn't find much value in the intermediate dots (that represents the intermediate replies), since there was no additional information on those dots. One of the user suggested that if taking the cursor to the dot gives more information about that reply, e.g., sender info, etc., then it would add more value to it. The other one became excited about having an option that can give him sender info (pic and/or name) on the dots to make it more useful and actionable.

In the interactive prototype, dots is extended to a line. Our fourth participant was really excited about this feature, and think this is a good overview of the email. He also mentioned it would be good to show few icons next or under the name to indicate whether it has photo/attachments. Our fifth participant thought it's a calendar when first saw it, because of the time stamp and name. However as soon as he scrolling, he realized it's a scroll bar.

c) In-line Replies

Our first participant found the inline-reply improvement helpful. He has to make such replies all the time so it was beneficial to him.

But, our second participant struggled with it. We had his name already there in the message body right next to where he was supposed to write his reply, but he still started with writing his name before his comments. At the end of the session, when we inquired why he did that, he mentioned that he thought that line of text was actually part of the original email. We discussed that if this was an interactive prototype and we had added his name when he start making an in-line reply, he would have understood is pretty well. So, this was actually more of a limitation of paper prototype than our UX flaw.

In-line reply feature has a much better experience on interactive prototype as compare to the paper prototype. It is very straight-forward to use. Participant four and five really liked it, and think it made their inline comments easier. They both brought up great questions and suggestions that were very helpful to move this feature further.

d) Miscellaneous

When testing paper prototype, two of our participants found the reply icon a bit confusing. One was expecting some text besides the icon as well, while the other found it more like a forward

than a reply button. Plus, in addition to a button next to each individual reply, there were also expecting a reply button available globally. This leads to the change in interactive prototype.

Surprisingly, almost all users liked the message popup “Message is sent successfully UNDO” at the top right. They think it gives them a direct feedback that message has been send. They feel good to see a confirmation. In addition, they really liked UNDO option, though it wasn’t implemented for the sake of this prototype.

One user mentioned searching for email in the inbox could be improved. Current method is fine, but given if we have lots emails a day in the inbox, it requires iterates through each item in the list, and search for matching email title.

Interface Revision

Button Icons

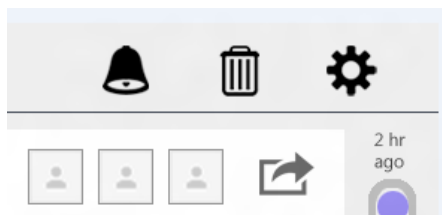


Figure 6: Previous Design



Figure 6: New Design

Originally, we had one reply button per email entry. Some participants had mentioned they would like to have a button globally available, that allow them to reply to the last email in the conversation. Thus, we added a reply on the top right for this quick jump.

In addition, many participants felt confused about what each icon mean. Although they could figure this out eventually, it would be great to have labels next to it. To reduce user confusion, we have added labels to each icon.

People Filter

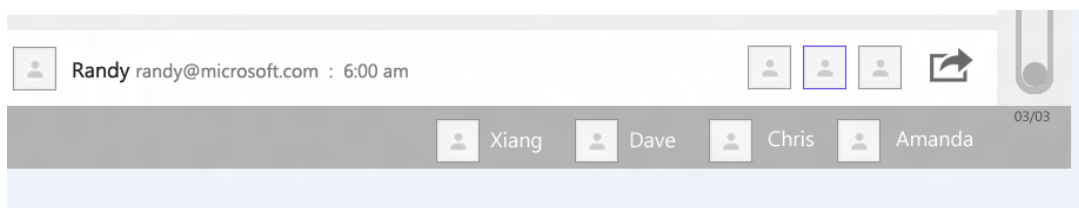


Figure 7: Previous Design

People in email



Mike Sui



Robert Hol



Michael Pri

show 1 more people

Figure 7: New Design

Many participants liked the people filter option. However some participants mentioned it takes up too much screen estate, and got into the way of email viewing. Especially what if we have 10 or more people? Thus we changed this to the low right corner. By default we only show 4 people. User can always click on it to expand and show more people's name.

Scroll Bar



Figure 8: Previous Design

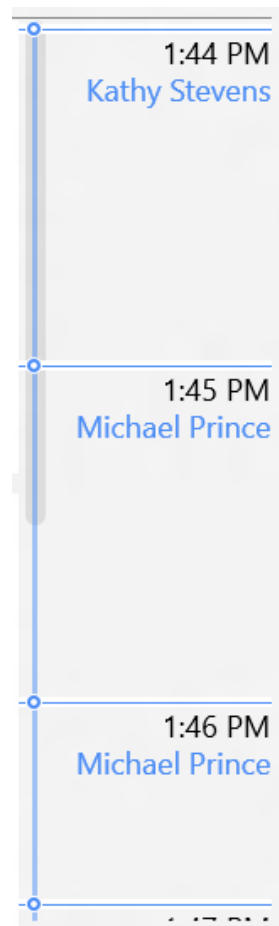


Figure 8: New Design

The new scroll bar is nice, our participants liked it. Originally, it only has dots. Which people felt like not that much useful? The new design shows time, and name, and other information about email. This makes the scroll bar more actionable.

Interactive Prototype

a) Overview

The interactive prototype is a Windows 8 app running on a tablet. Since, our goal was to improve the user experience of email use, increase browse speed, reduce overhead, therefore, this is best tested with an interactive prototype. We tried to develop the prototype to be as full-function as possible. So people can freely explore the system, and provide feedback on what they feel if this is their default email client.

b) Scenarios

Scenario 1

User will start with the first screen (Figure 9). While going through this list, he will notice the email from Chris with subject “**Weekly Progress Update**” and click on it, which will update the reading pane (Figure 10). User will read through the message, click reply to go to reply box (Figure 11). User will type his response in the reply box (Figure 12) and click the Send button (Figure 13).

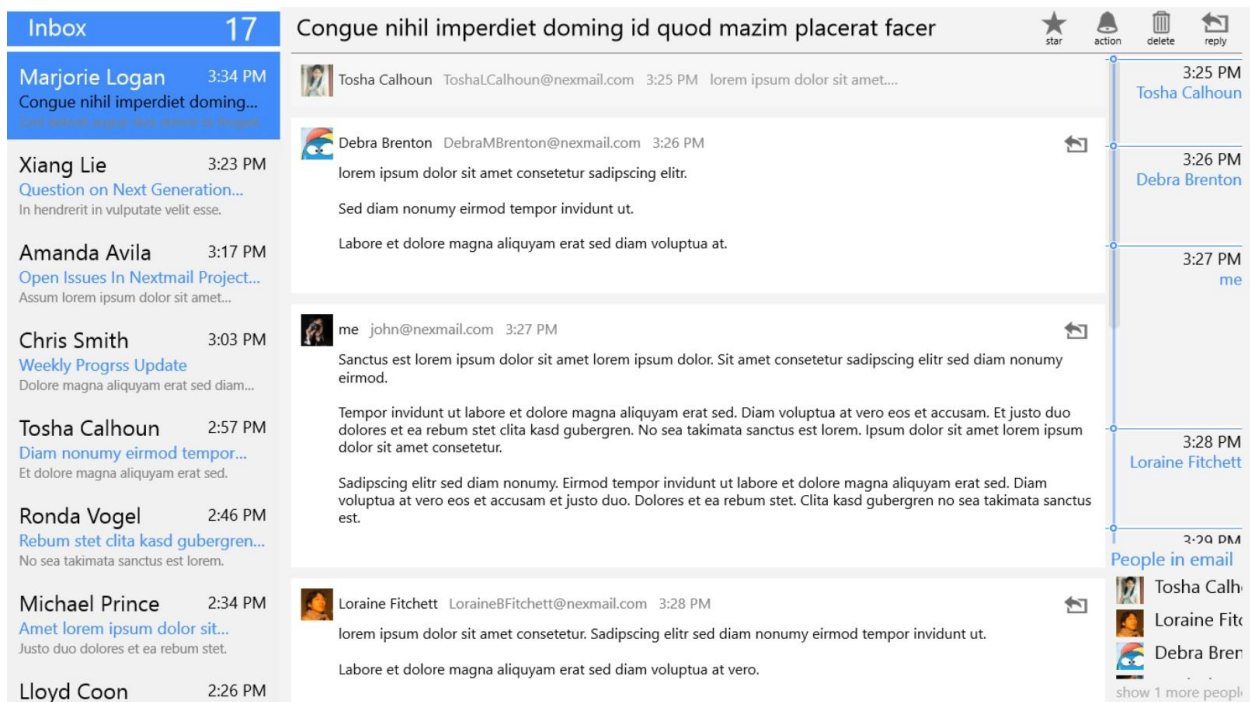


Figure 9: Scenario 1 – First Screen

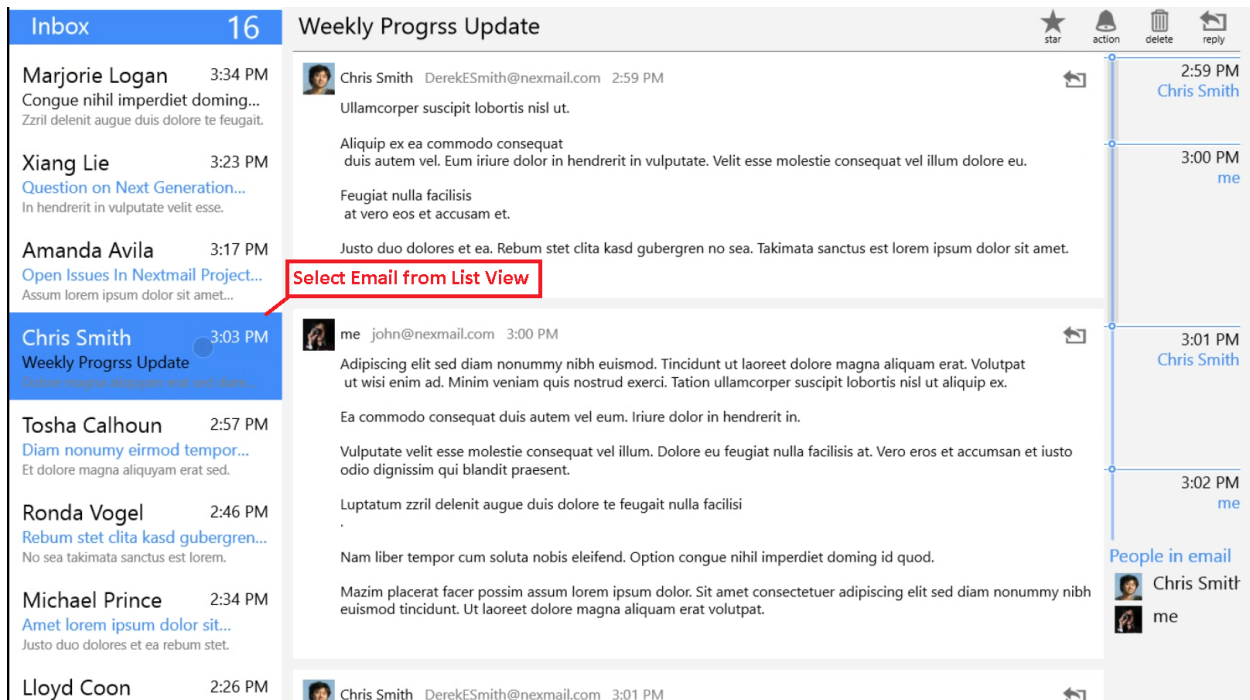


Figure 10: Scenario 1 - Email Selection from List View

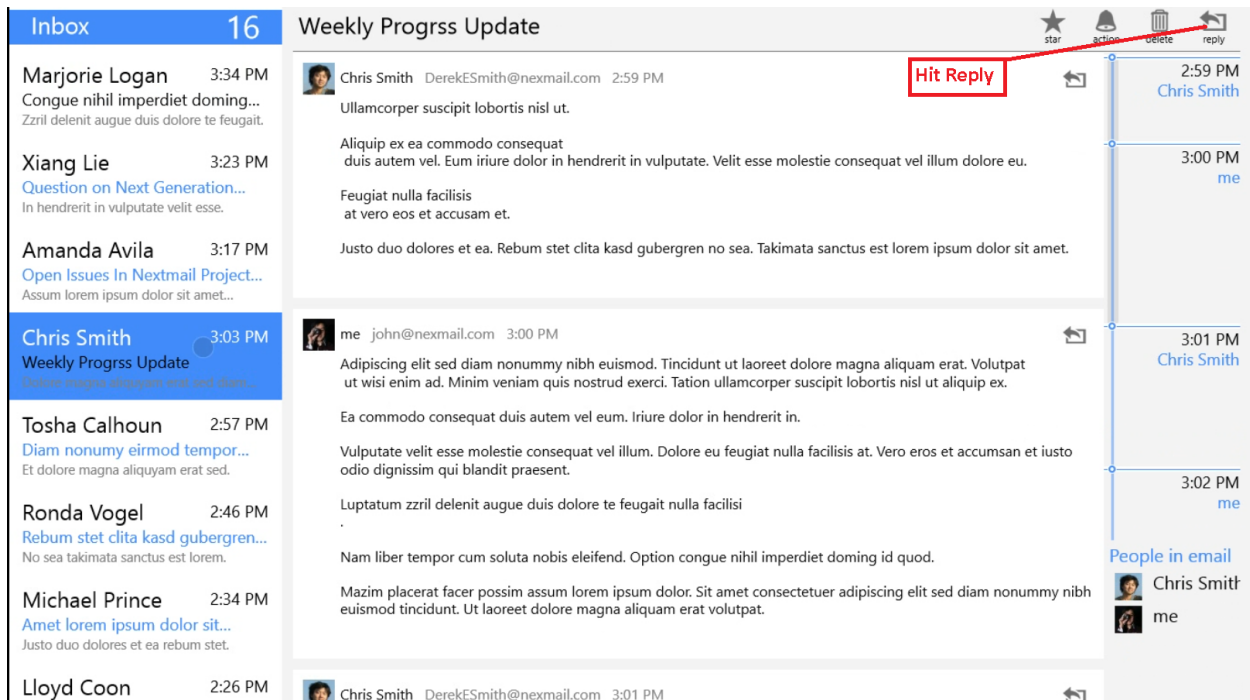


Figure 11: Scenario 1 – Hit Reply

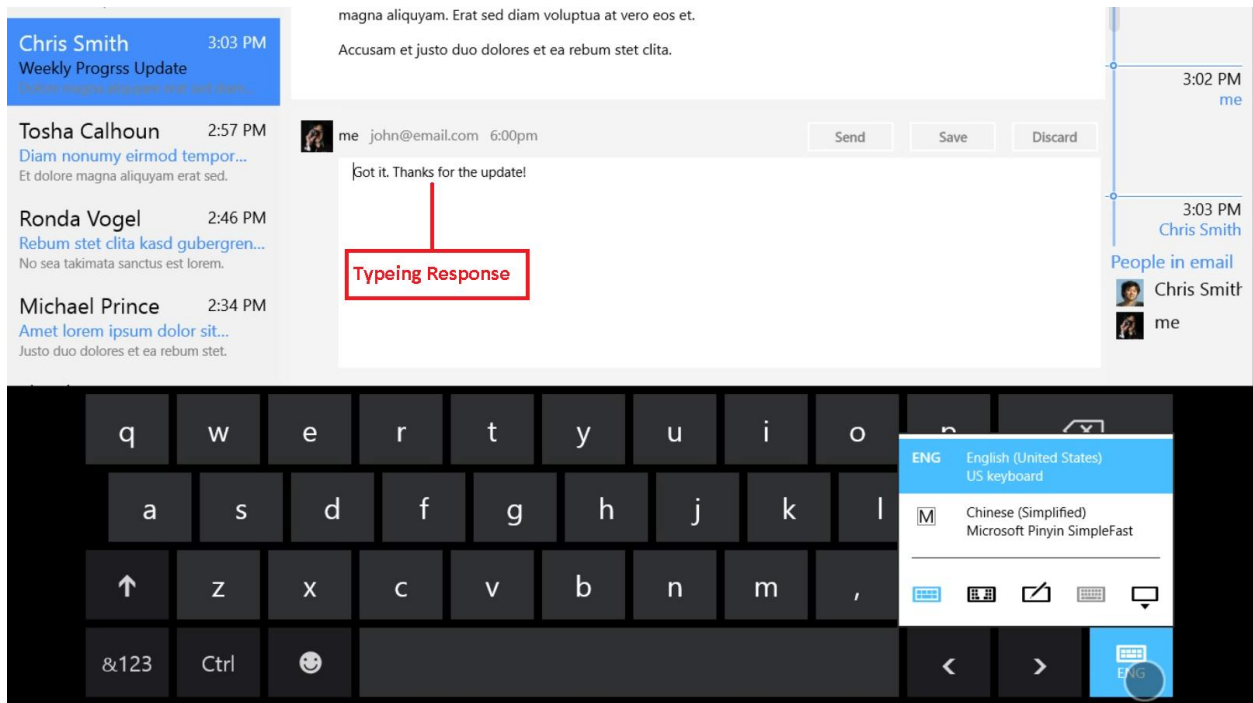


Figure 12: Scenario 1 – Typing Response

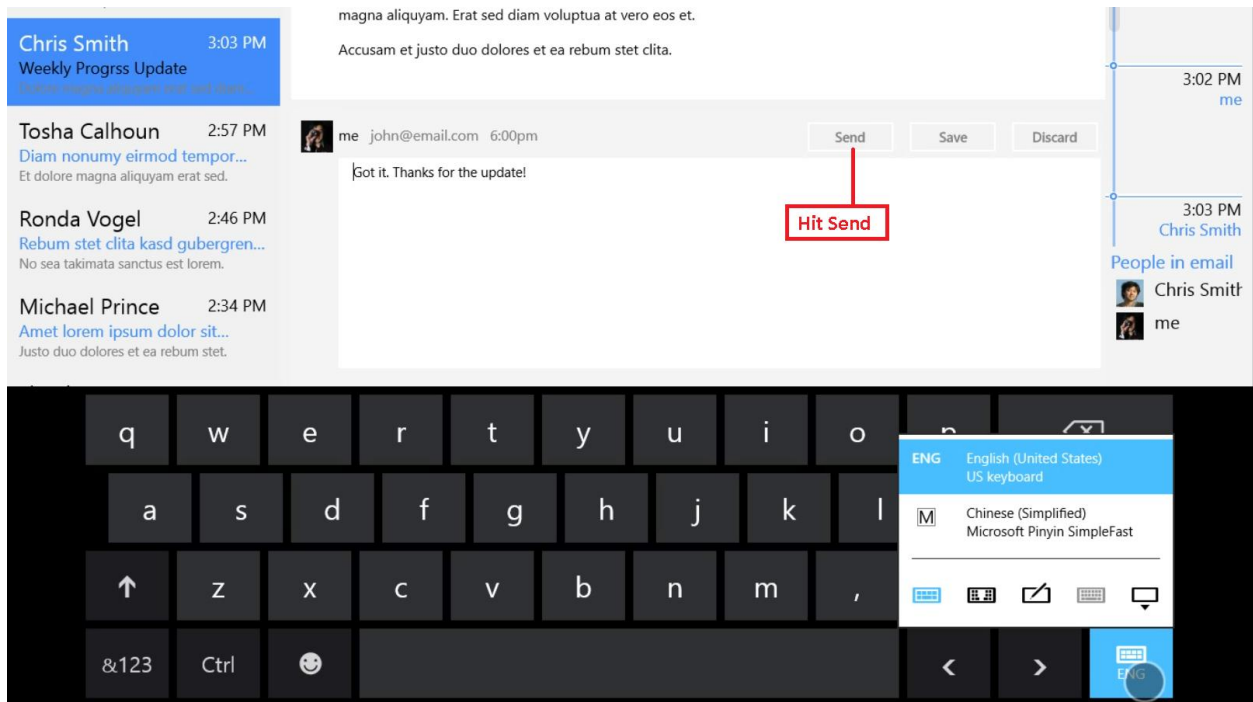


Figure 13: Scenario 1 – Hit Send

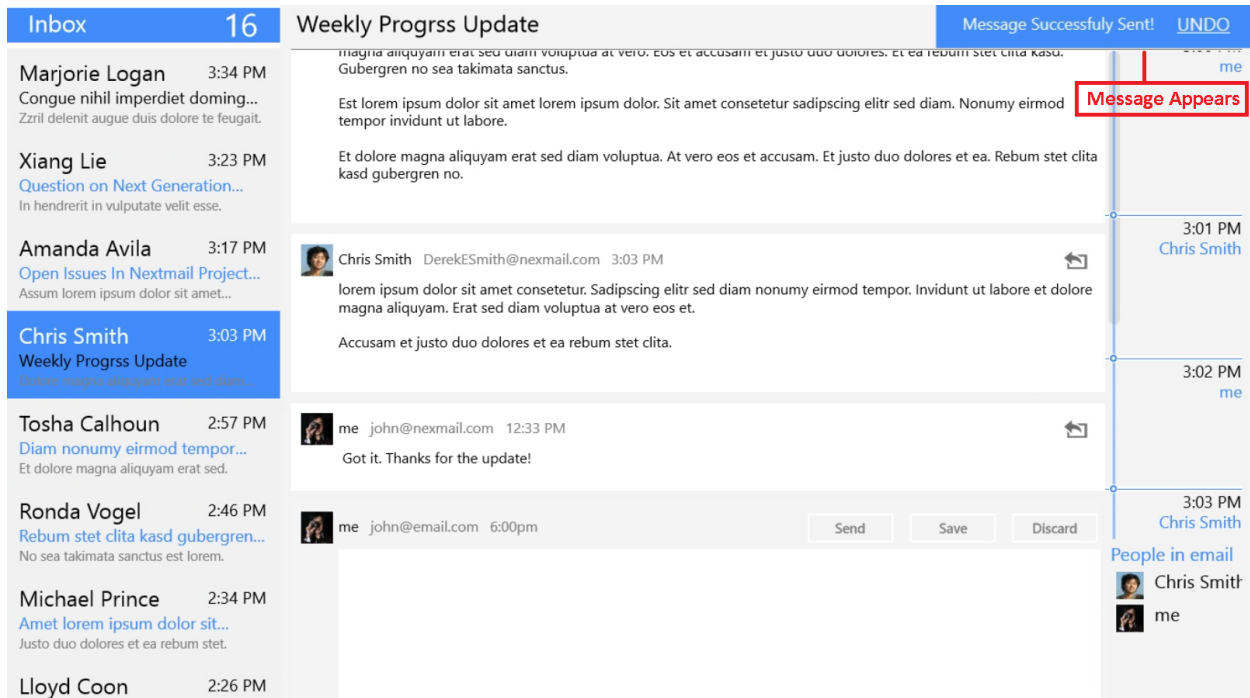


Figure 14: Scenario 1 – Message Sent

Scenario 2

User will start from where he left with the previous task (Figure 15). While going through this list, user will notice the conversation “**Open Issues in Nexmail Project**”. He will select it, which will update the reading pane (Figure 16). Since there are many replies to the message, and user right now is only interested in the comments of his Manager, he will click on his Manager’s Photo in the bottom right section under “People in Email” (Figure 17). This will collapse all the other replies and leave the replies from his manager open (Figure 18). This will help him just focus on the comments of his manager. Once done with reading those, he will click the reply icon (Figure 19), type his response (Figure 20), hit Send (Figure 21) and the sent notification will appear (Figure 22).

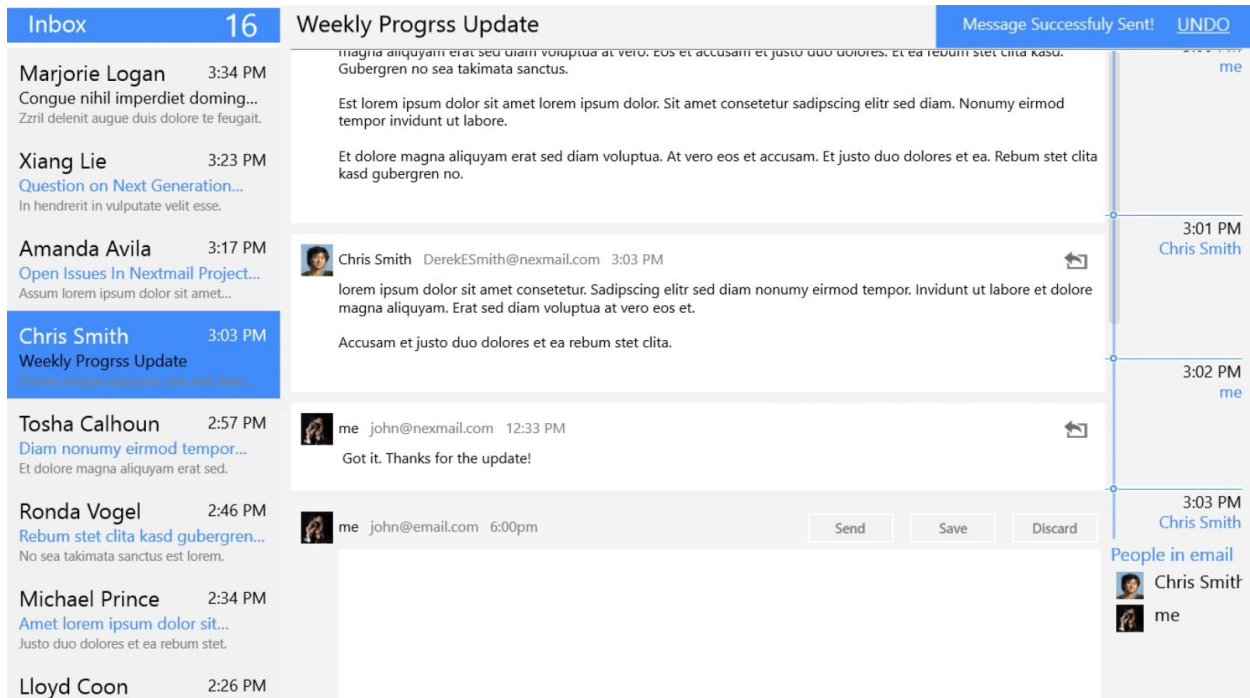


Figure 15: Scenario 2 – First Screen

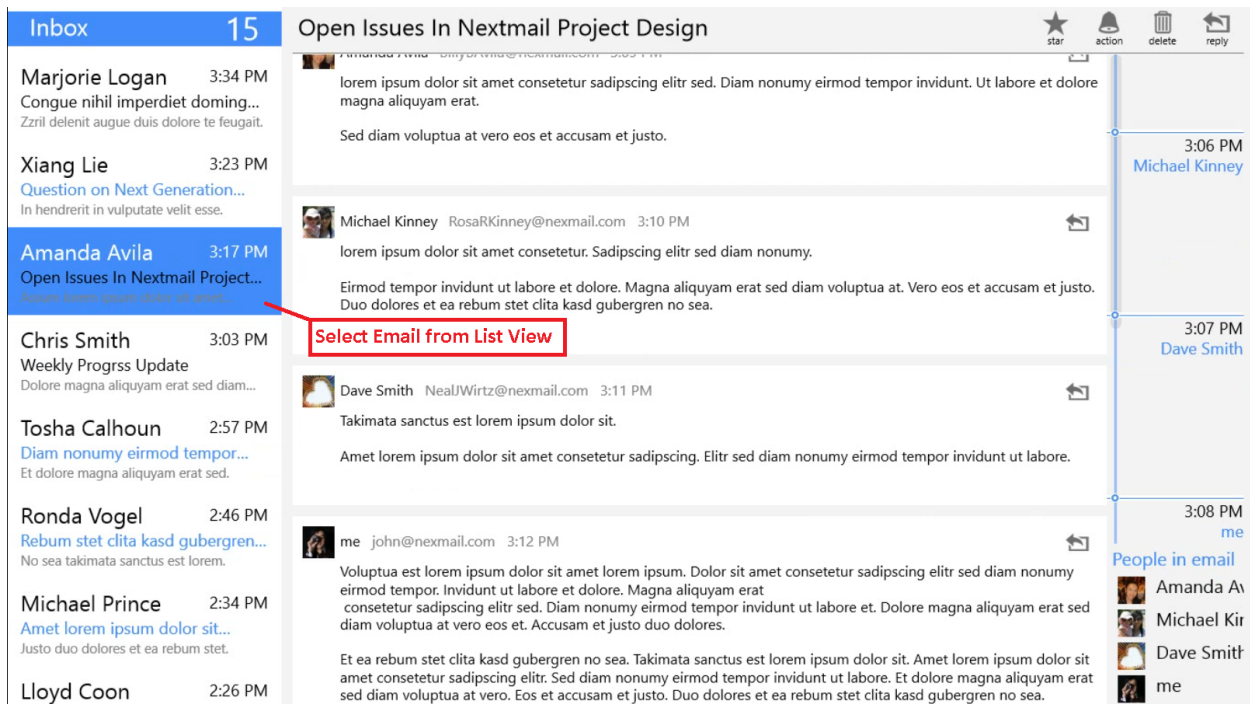


Figure 16: Scenario 2 – Email Selection from List View

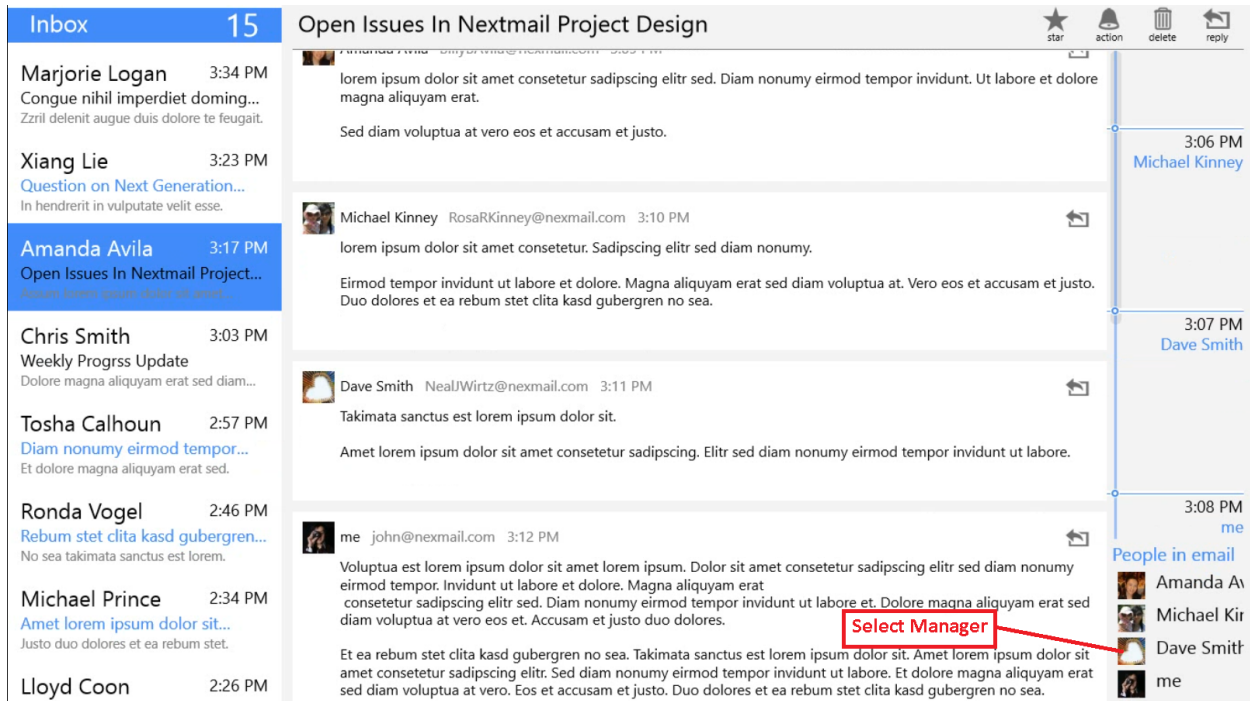


Figure 17: Scenario 2 – Selecting Manager to filter

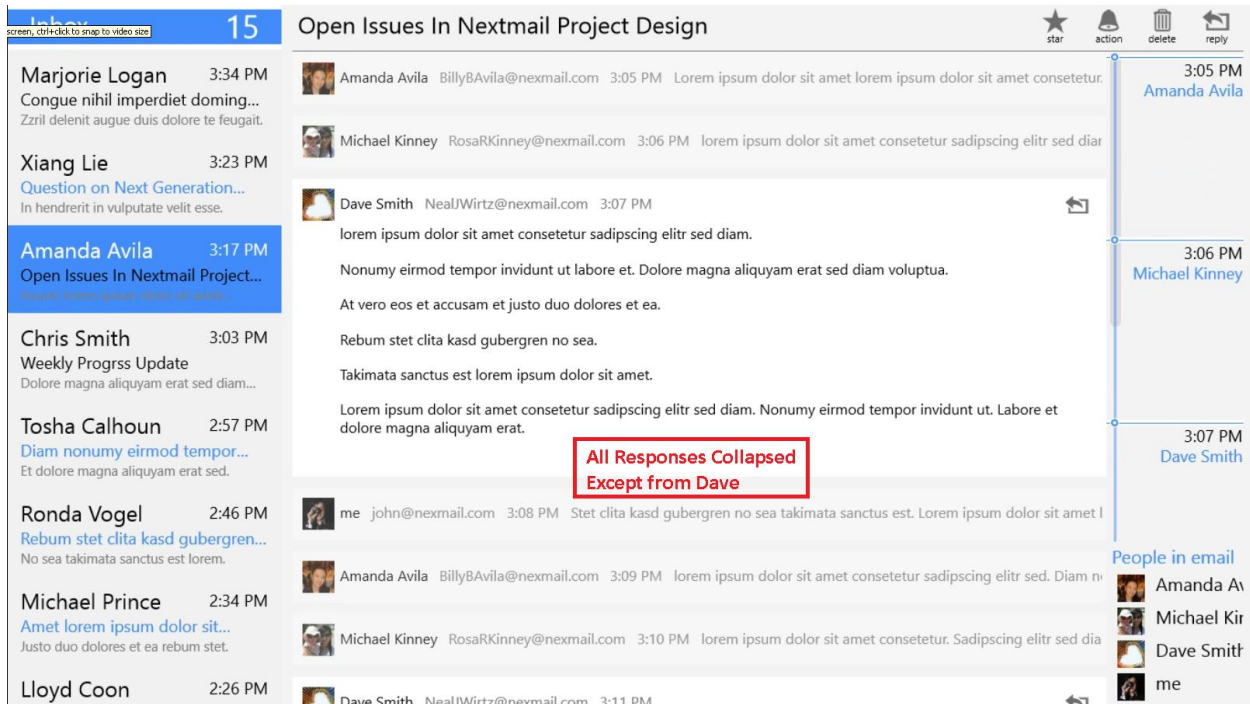


Figure 18: Scenario 2 – Filtered View by Manager (Dave)

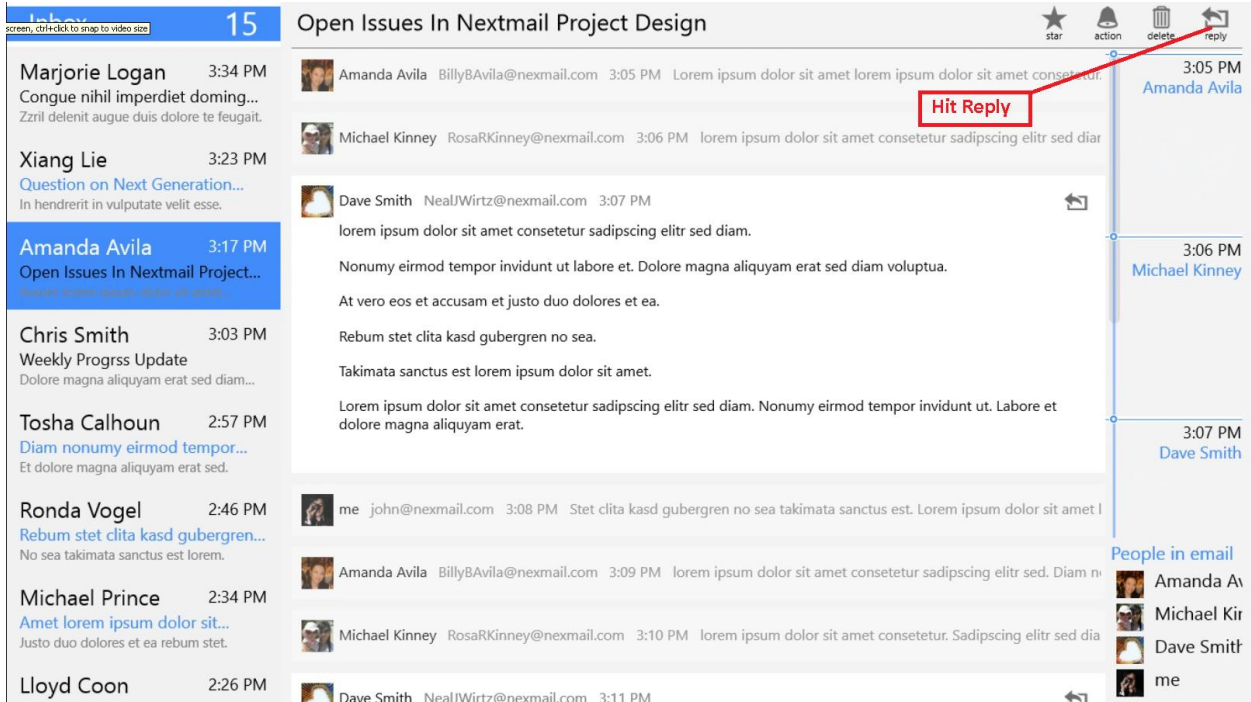


Figure 19: Scenario 2 – Hit Reply

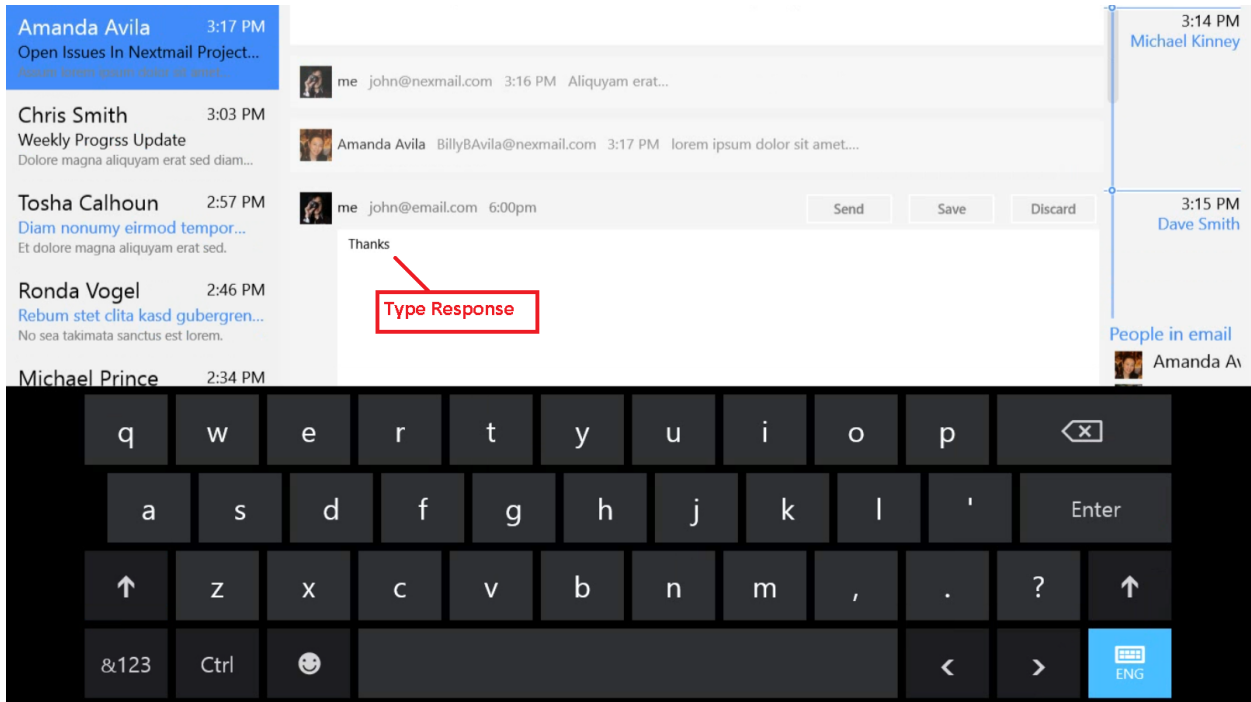


Figure 20: Scenario 2 – Type Response

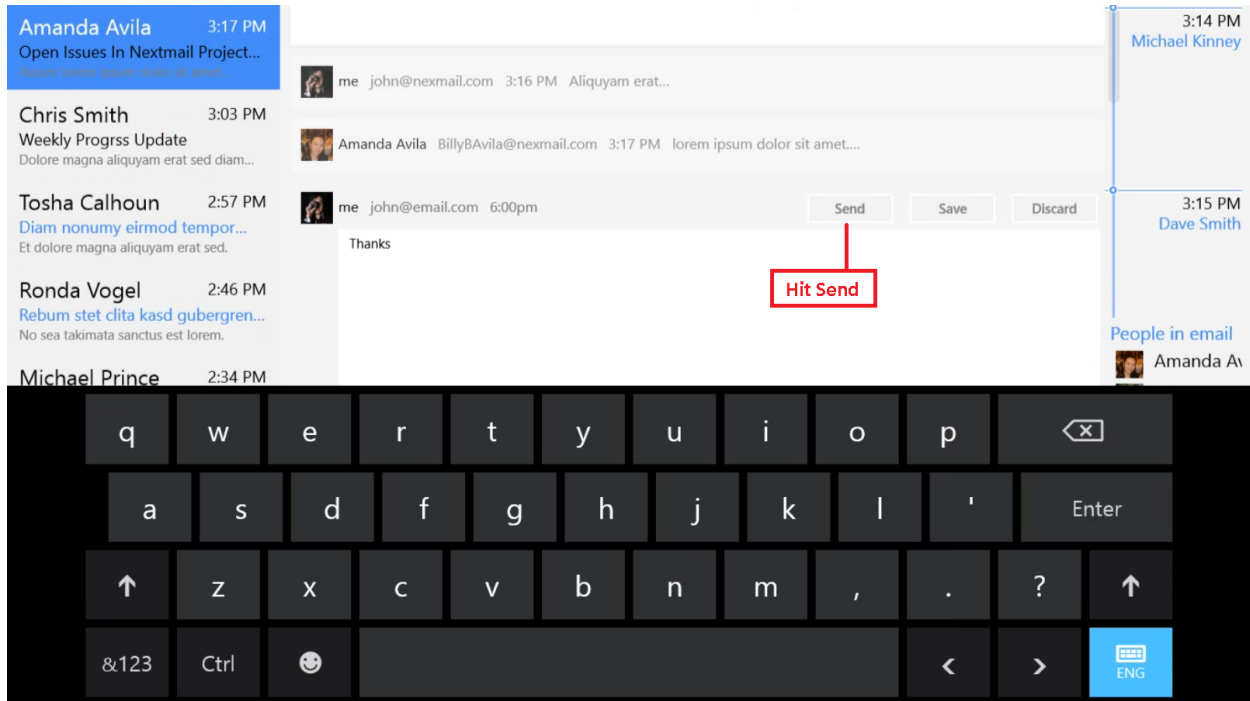


Figure 21: Scenario 2 – Hit Send

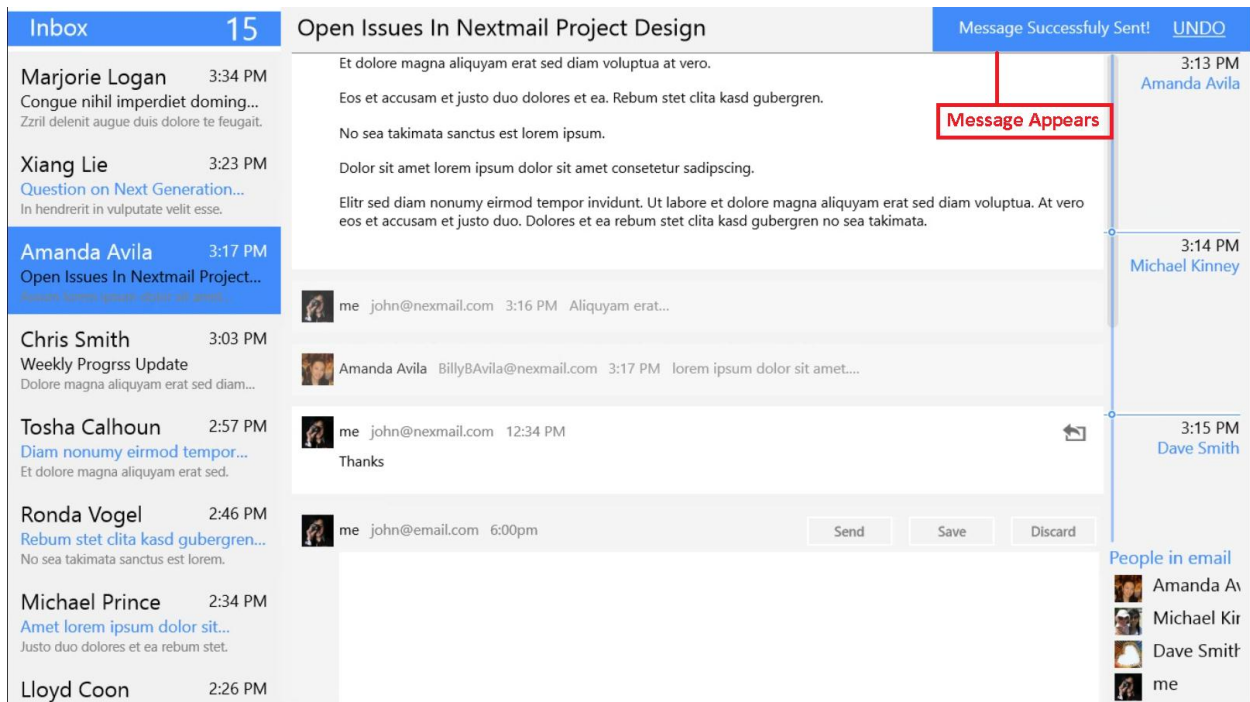


Figure 22: Scenario 2 – Message Sent

Scenario 3

User will start from where he left in previous task (Figure 23). He will go through this list, will notice the conversation “**Questions on Next Generation Email Client**”. He will click on it, which will update the reading pane of the screen (Figure 24). Since there are many replies to the

message already and user has just noticed this conversation, he wanted to read the first message in this conversation to understand what is going on. To achieve that, we will turn to the vertical scroll bar on the far right of the reading pane. He will select the top node of the scroll bar since that represents the first message in this conversation. Selecting that node will automatically scroll all the replies down in the reading pane and user will be taken right to the first message (Figure 25). User will read through the message and continue through the other responses. On getting to the response from Xiang Lie, user will notice the question for him. To make sure that his response is taken in the right context, he will respond in-line by clicking the reply button on that particular email (Figure 26), and then will take his cursor right below Xiang’s question (Figure 27). User type at the place where he wants to add inline comments (Figure 28). He will notice that there would be marker with his name, automatically added to his cursor position. Plus, the style of his reply text would also be changed automatically, so that people can easily different his response from others. Once done, he will hit Send button (Figure 29) and the sent notification will appear (Figure 30).

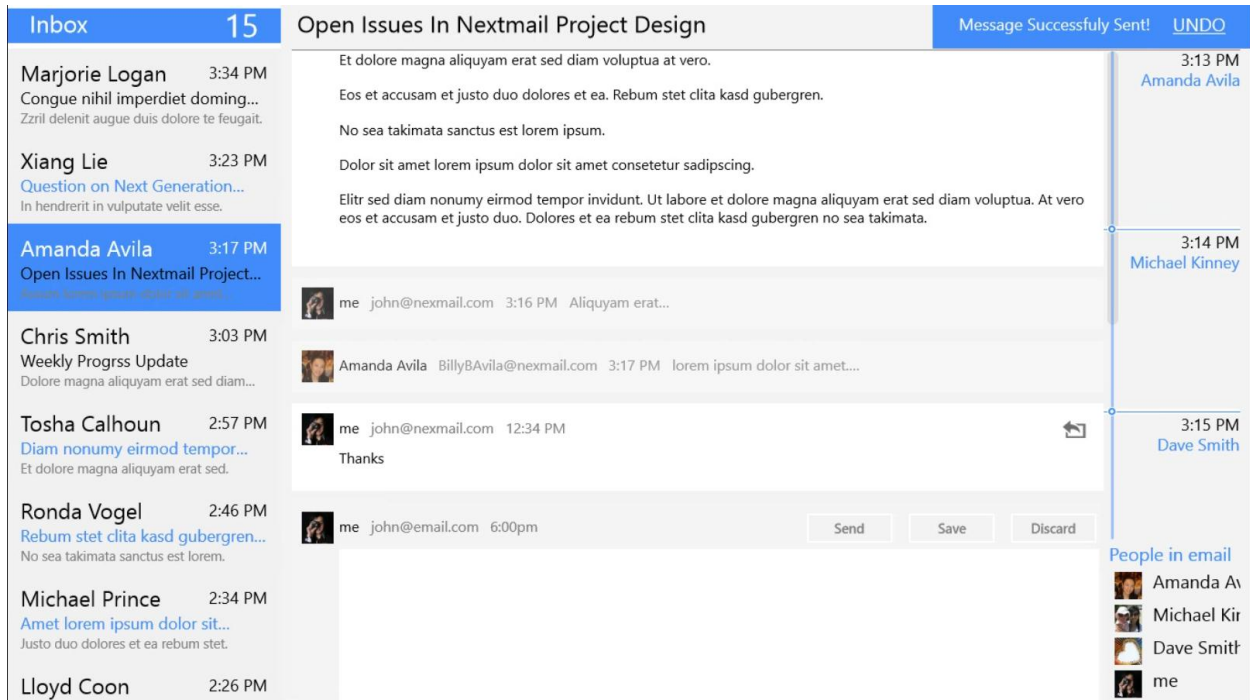


Figure 23: Scenario 3 – First Screen

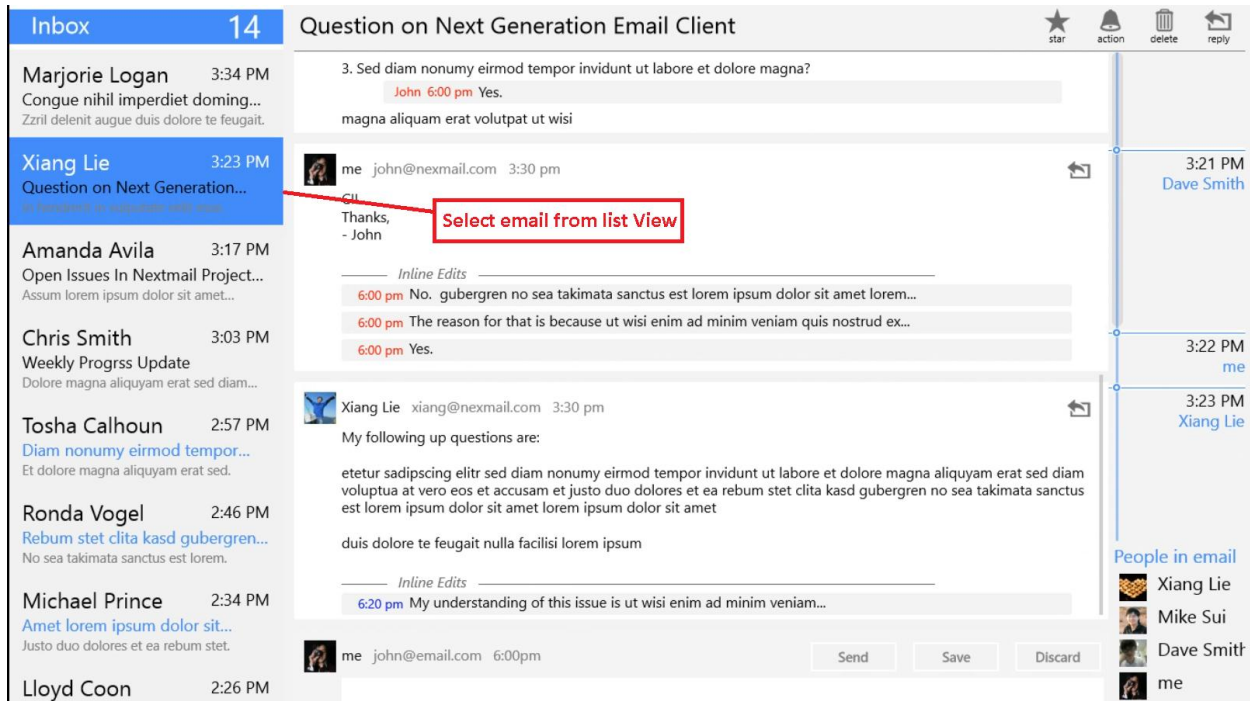


Figure 24: Scenario 3 – Email Selection

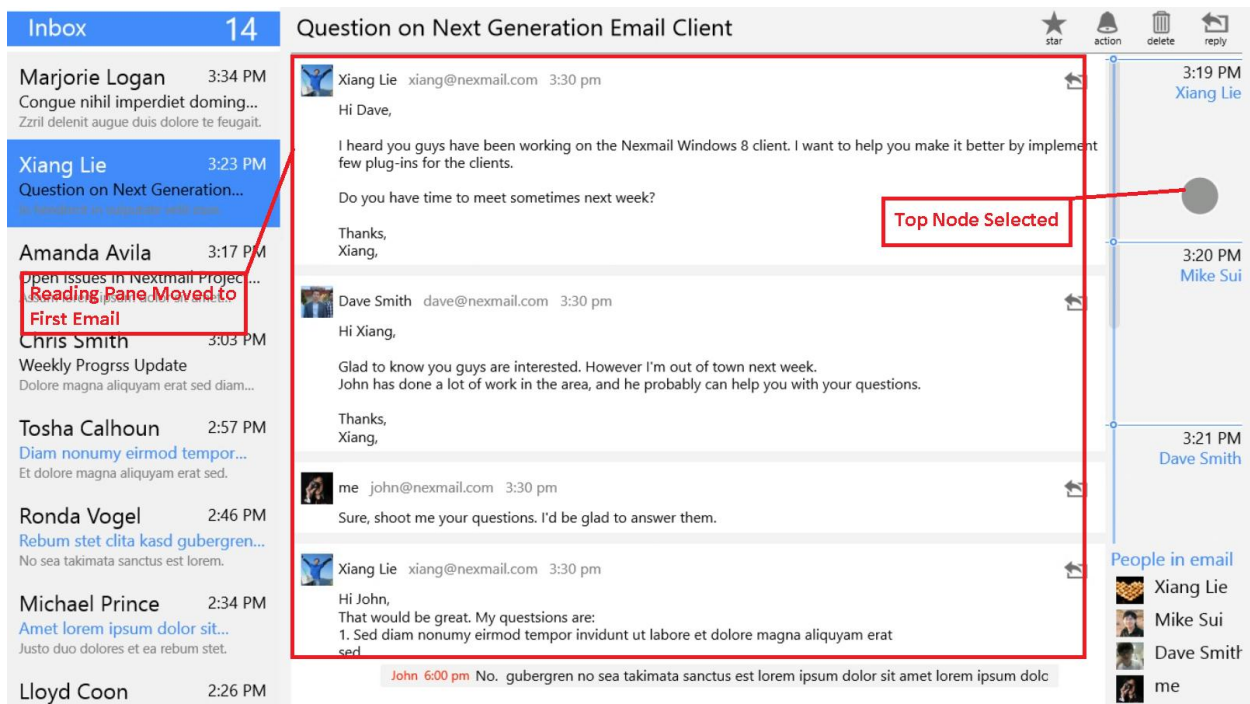


Figure 25: Scenario 3 – Top Scroll Bar Node Selection

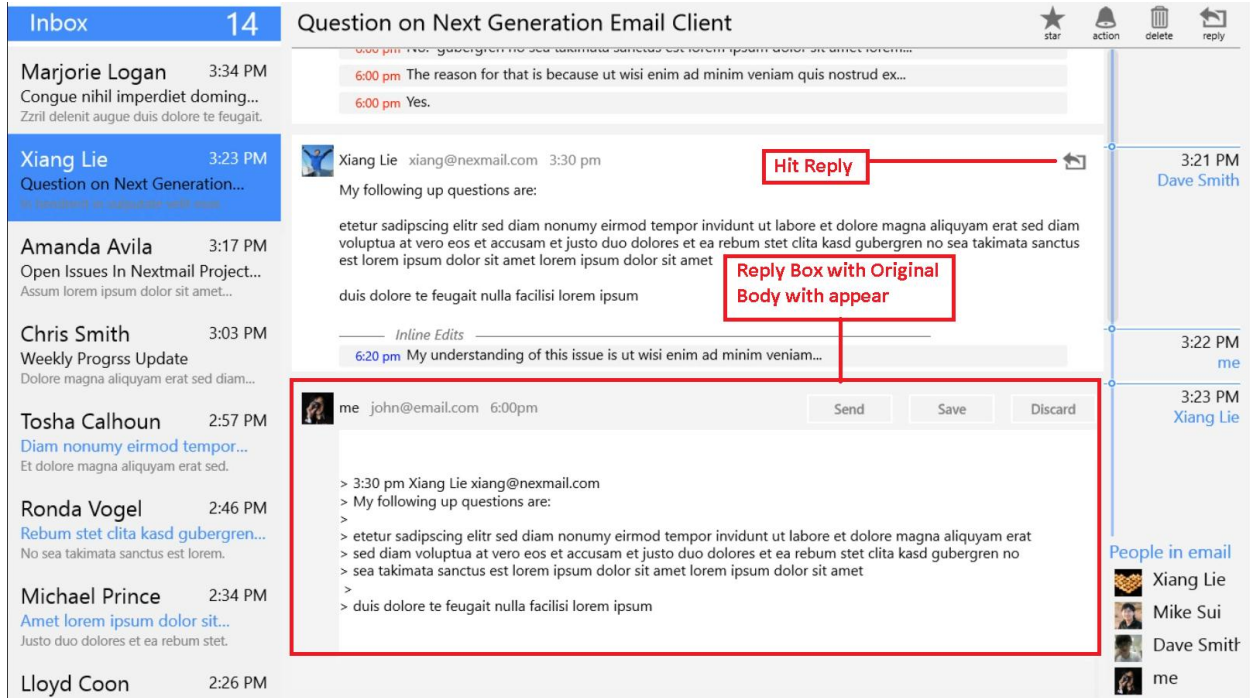


Figure 26: Scenario 3 – Hit Reply

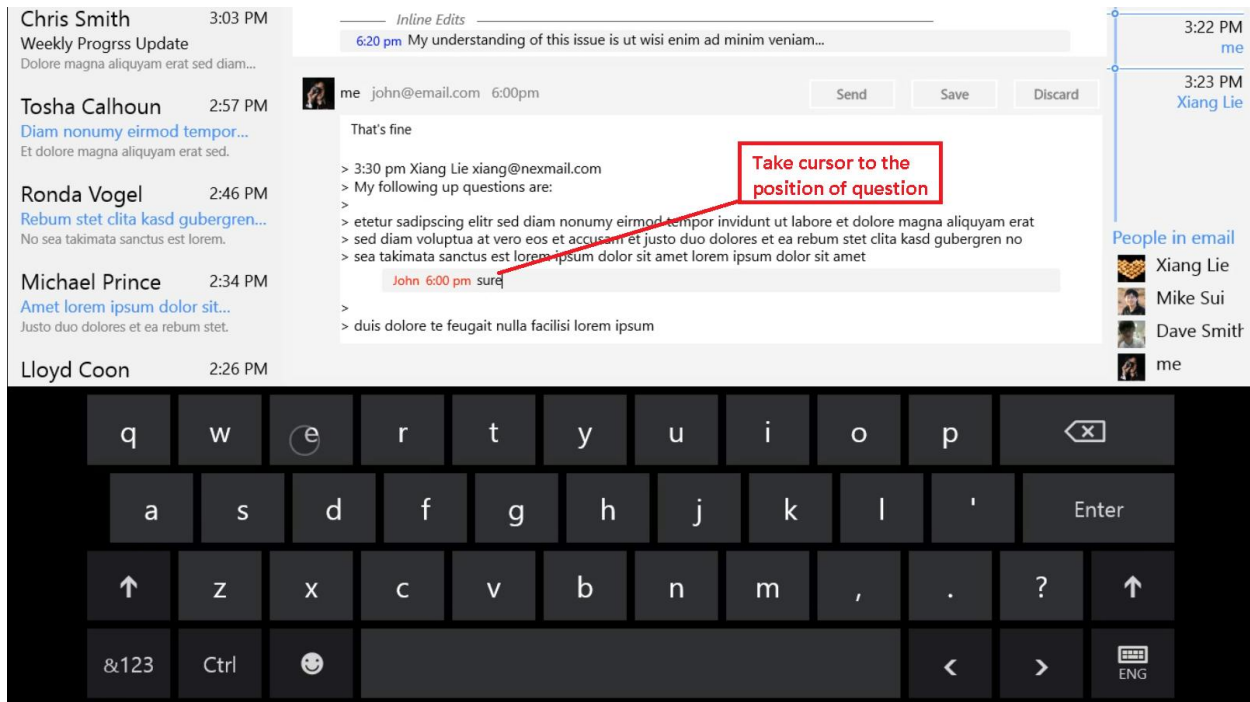


Figure 27: Scenario 3 – Take Cursor to the position of question

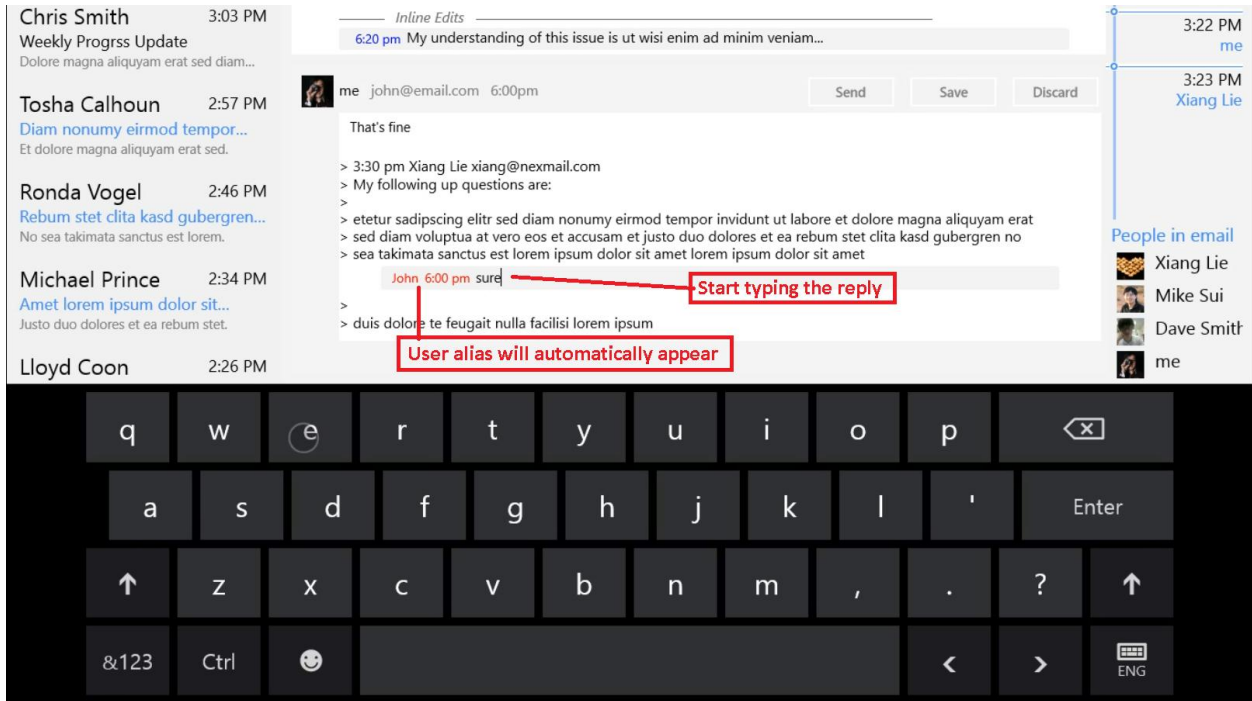


Figure 28: Scenario 3 – Type Response

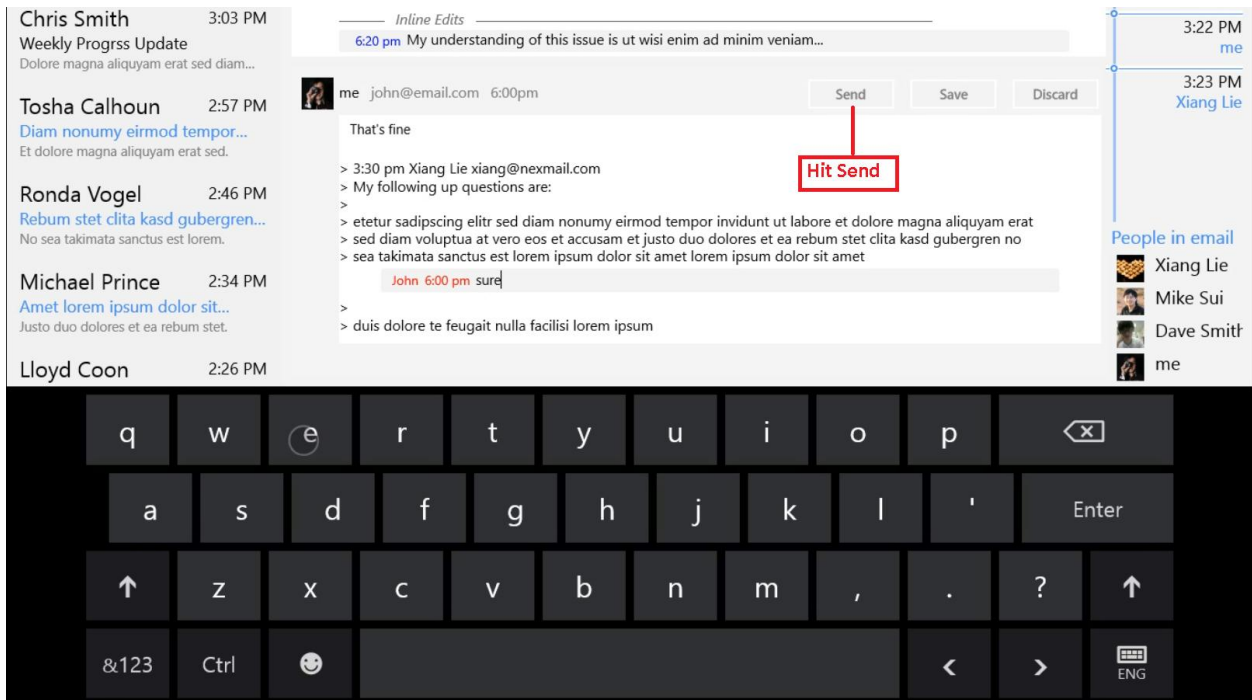


Figure 29: Scenario 3 – Hit Send

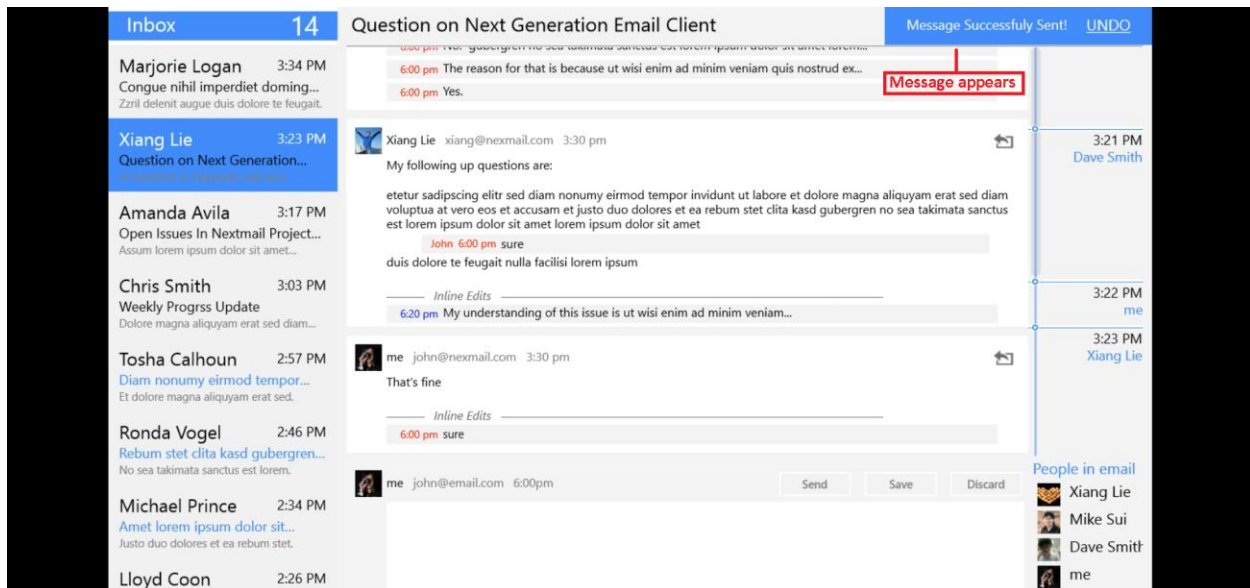


Figure 30: Scenario 3 – Message Sent Notification

c) Tools

The prototype was developed on **Windows 8 Release Preview** with **Visual Studio 2012 RC**. It is developed as a Metro app with **C#**. It is developed completely from scratch, without reliant on any other library or code. We choose to use technology this because **C#** is very versatile and reliable. Unlike **HTML & JavaScript**, it can produce very smooth experience and does not depend on browser capability. We don't have to worry about if it looks right on **IE** or **Safari**. We also focused on a single resolution, so we don't have to worry about resolution scaling. We developed it on the presentation device, so what we see during developing will be what user sees during usability study. We coded the prototype as real as possible, so it's easier to change design based on user feedback.

The down side of prototype with this technology is the amount of effort needed is non-trivial, as compare to **HTML/JavaScript** approach. However **HTML/JavaScript** may not reach the level of easiness and smoothness, we wanted. Thus going that approach would defeat the goal of our usability studies.

In addition, because the entire developing platform is in beta version, some **API** does not work as it supposed to be. Extra effort was needed to understand and work around platform bugs.

d) What was left out and why?

The inline reply feature is a much reduced scope. This is mainly due technical and time constraint. We could only implement a fixed-path prototype.

We also left the option if people want insert/edit more than just text. This would a great feature, however its complexity could go beyond this could. And we don't have enough time in this course to finish the implementation.

In addition, we only showed one folder of the email inbox. Full inbox experience with multiple folder and account is left because it's not a targeted scenario of this project.

Summary and Lessons learned

a) Project Proposal

This project started with the vision of **Lei Guang**, aiming to take the Email out of its dark ages of 80's and give it a fresh look, which can fit in the modern era. **Haroon Barri**, working in the Email Software for the last five year himself, took no time to get onboard with the project, as he shared the same vision and wanted to give email its much needed overhaul.

b) Project Scoping

Though the vision was great, it was quite broad and diverse too. So, at the very start of the project, we were faced with the challenge of scoping it down to something that can be effectively tackled in the timeline of this course project. Being perplexed and overloaded by the loads of work emails ourselves, we decided to restrict our audience to working professional with heavy email usage.

c) Lessons Learned From Contextual Inquiry

Here are a couple of high-level takeaways from our contextual inquiry sessions:

Be Prepared for Surprises

We went into Contextual Inquiry with some presumed customer pain points, but a number of assumptions were shattered at the conclusion of the session. At the same time, we came out with some new insights that we didn't consider initially at all. For example, we wanted to improve the task management system for the users, but after the session, found out that none of our participants are much interested in them.

Default Experiences Are Important

During the session, our participants made a number of feature requests and, were surprised to that a couple of these features are already there in the Email Software they use every day. One of the main reasons the users never knew about feature is because they were not enabled by default in the client. User had to go into some settings and enable/configure those to make them light-up. This gives a clear message that how important are the default settings for a given since many users never bother changing the initial settings, and given with the basic functionality for ever.

Sometimes few extra clicks are too much

During the sessions, we realized that most of the time, users don't want to leave their comfort zone nor do anything that disrupts their basic flow of action. For example, none of our users use outlook's voting feature that let users decides on multiple options, rather they continue to user plain email to achieve the same task. Reason being, they don't want to do create different type of items for different things, they just need one simple solution that can allow us get through most of their stuff.

Audience Selection

At the conclusion of the session, we realized the importance of not doing this exercise with our friends and family. Most of the time, we work with some basic set of assumptions, and we also share a good percentage of those assumptions with our friends and family, sometimes implicitly and sometimes explicitly. So, it's very important to have a fresh perspective, unbiased from our own assumptions.

d) Project Realignment

After the contextual inquiry results, we realigned out project focus, and shifted towards the pain points of our customers, rather than the ones we thought of initially.

e) Lessons Learned from User Testing

We have already mentioned the results of the User Testing in of one the sections above, so won't go over those again. Here, we will rather highlight some high-level aspects about the process in general:

Limitations of Paper Prototyping

Paper prototyping was a very interesting exercise. At one end, it allowed us put together something quick n dirty in a very short time and get some useful user feedback. But, on the other hand, it had some limitations that restricted us expressing few aspects of our interface that ultimately confused the users during the User Testing. For example, it was not easy to simulate the experience of in-line edits with user identify marker in the prototype.

Customization of Tasks and/or Paper Prototype

Though, we tried to define our tasks as close to reality as possible, but they were not customized based on the profile of each individual participant. The downside of this was that each tester had to assume some identify at the start of the task and live with the entire the whole process. This added an extra burden on the tester and introduces some sense of artificialness to the process. During one of the tasks, a user didn't realize his assumed role's name was already there on the reply area, and started starting his actual name there. We believe that if the user was working with his own identity, he would have never made that mistake. I can see that such customization

of the tasks and/or paper prototype might not be feasible, if done on a large scale, but as far as this course was concerned, we would have done that easily.

Hard to decide what is distracting and what is not

In order to avoid distracting with user with so much details and a fully loaded UI, we left out a couple of details from our paper prototype. But, during the actual testing session, we noticed that not having those little things in there was actually confusing to the user and that notion itself was distracting them from the task at hand. For example, some users were trying to read the actual email text and were complaining that they cannot make sense of it. That text was random stuff since it wasn't much relevant to the given tasks but still they were trying to make sense out of it and wasn't much amused.

f) Conclusion

To sum-up, it was quite amazing to see all the transitions our project took, right from the point of its inception, till its conclusion. The processes involved in the exercise helped us shape the project better. We got some valuable feedback and insights from all the participants, which was great. Instructor and TA gave some real good feedback. Finally, it was nice working in a team; we had a common vision and our good understanding throughout the project helped us land it well.

Appendix

a) Testing Session Raw Notes

Task 1:

- 1) → took time to read the but should not which was not the right message
- 2) working to be improved to suggest what we needs to do, rather than what is already done
- 3) Exporting attachment → should be in a more appropriate format of the email.
- 4) Showing "message sent" was helpful
- 5) Looking at my text/reply not very interesting

Task 2: Not very clear about the last line with pictures, are these all 'cc', 'bcc' for which message

- Did Scudley instead of using the picture at the bottom
- After the collapse was, still wanted to see more replies from Dan

Task 3 Need text (in addition to icon) to indicate if this is the way to reply

1) clicked on the picture to reply,
but it was for filter.

-> coz if it were an actual reply
the things were more clear & visible
the collops between were
understand.

-> To go back to default view,
some text on the top.

Task 3-

- 1) include the scroll bar.
- 2) No. of users => dots
- 3) Confirms why it was not black.
- 4) Edits heading, i) copying &
& also coz of the layout.

High level

-> Not very change.

-> Filter option is good

-> not a very value of to show just
dot for gas to the email, when

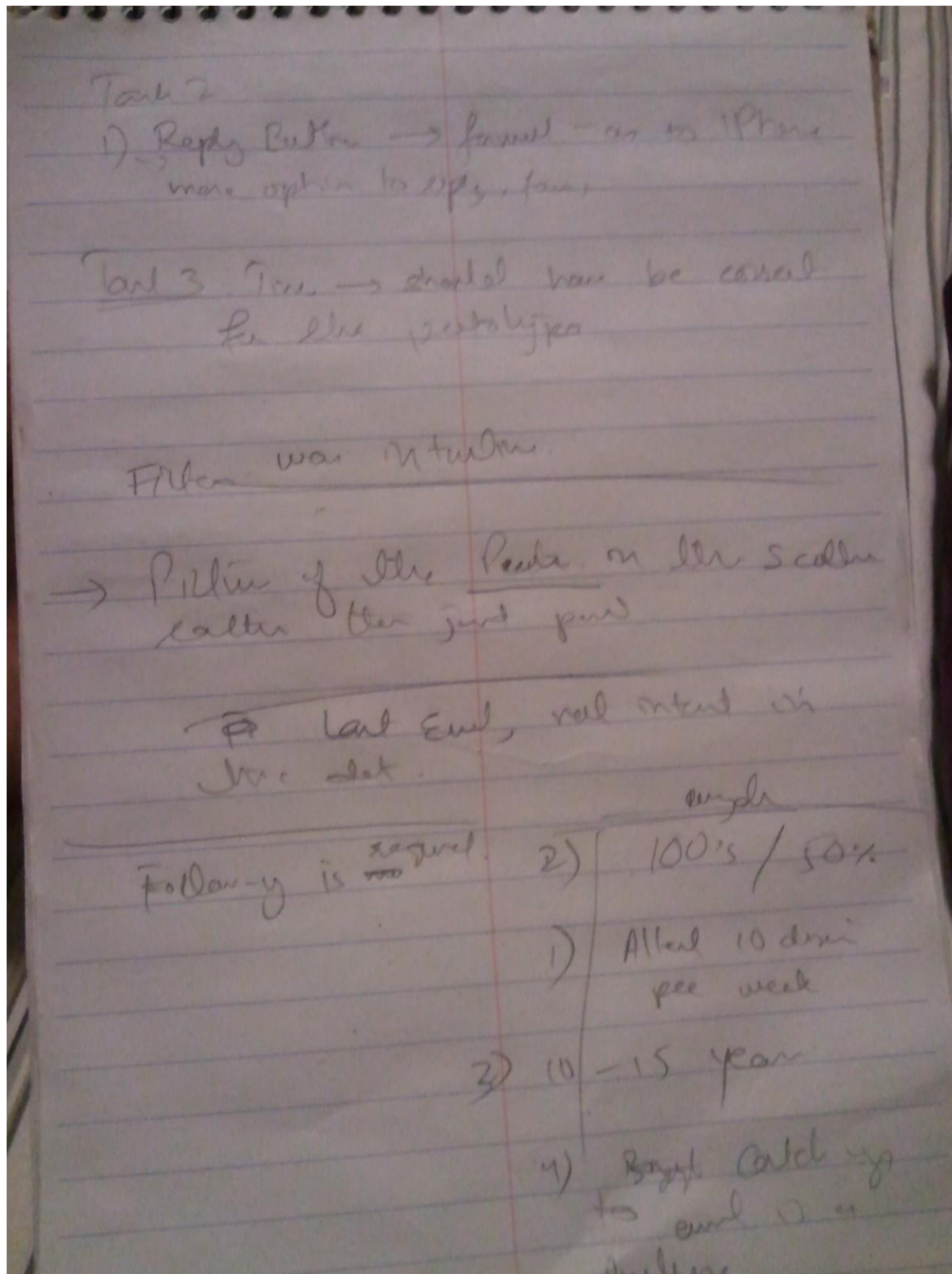
the option has use info or using

with some to make it

4) Maybe when user takes the census
over them, when other go more info
about that particular message.

Profile

- 1) 7 years (TD)
- 2) 15-20 - Ya term
- 3) 8-10 - per week
DB user min
upto 15
- 4) 0.5 - 1 hour on avg
per day.
- 5)



b) Paper Prototype Screenshots

- Inbox (5)
- Today, May 3, 2012
- Sender Name 6:00 am
Email: [unreadable]
 - Chris 6:00 am
Weekly Status Report: Monday 5/28/12
 - Amanda 6:00 am
Issues in High Profile Project Design
 - Kiang Liu 6:00 am
New Mail: [unreadable]
 - Sender Name 6:00 am
Email: [unreadable]
 - Sender Name 6:00 am
Email: [unreadable]
 - Sender Name 6:00 am
Email: [unreadable]

Issues in High Profile Project Design

Amanda [unreadable]

Chris [unreadable]

Kiang Liu [unreadable]

Sender Name [unreadable]

Sender Name [unreadable]

Sender Name [unreadable]

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Email: [unreadable]
 - Chris 6:00 am
Weekly Status Report: Monday 5/28/12
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 - Sender Name 6:00 am
Email: [unreadable]
 - Sender Name 6:00 am
Email: [unreadable]
 - Sender Name 6:00 am
Email: [unreadable]

Amanda [unreadable]

Chris [unreadable]

Kiang Liu [unreadable]

Sender Name [unreadable]

Sender Name [unreadable]

Sender Name [unreadable]

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 - Sender Name 6:00 am
Email: [unreadable]
 - Sender Name 6:00 am
Email: [unreadable]

Issues in High Profile Project Design

Amanda [unreadable]

Chris [unreadable]

Kiang Liu [unreadable]

Sender Name [unreadable]

Sender Name [unreadable]

Sender Name [unreadable]

[unreadable]

