

Thunderbird Study: Search Bar

Scope of Study

This accessibility study was conducted between September 2025 - January 2026.

The purpose of this study is to observe both pros and flaws in Thunderbird's accessibility features for its users, including but not limited to the following when using the Global Search Bar:

- **Navigational Focus**
- **Keyboard Navigation**
- **Screen Reader**
- **Voice Control**
 - ****Voice control analysis is currently *on hold***

Additionally, I included observations I had when opening and responding to emails after using the global search bar as this was my next expected behavior of a user.

A comparison to other a11y-focused platforms (such as Gmail and Outlook) was completed to observe established patterns of accessibility users have come to expect.

It is important to note that users are as diverse as the systems they use to navigate computers; many use a combination of these accessibility features to use Thunderbird, so an inability to operate something **without** the use of a mouse is a critical flaw.

Flaws / Areas of Improvement

Keyboard Control

Summary:

During keyboard-only testing of Thunderbird's Global Search and email workflows, I observed several accessibility challenges. Excessive tabbing was required to navigate to emails, and the Enter key did not always open messages. After replying, the text editor was sometimes inaccessible, and new windows opened unexpectedly, increasing cognitive load. Arrow keys only scrolled the page rather than selecting emails, and switching between mouse and keyboard often disrupted focus. These findings highlight opportunities to improve keyboard navigation, focus management, and workflow consistency across testing environments.

Keyboard Interaction & Navigation (*macOS*)

Excessive tabbing required to navigate to emails after using search and opening an email

- Navigation flow requires multiple tab stops before reaching interactive results (see navigational flow Image 1a in full study)
 - **User Impact:** Increased interaction cost and task completion time for keyboard users reduces efficiency and usability of search navigation.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** **HIGH**

Global search results do not open emails with the Space/Enter key (click interaction required)

- Keyboard activation via Enter is nonfunctional for result selection
 - **User Impact:** Keyboard-only workflows are disrupted, requiring mouse interaction and reducing accessibility.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** **HIGH**

After replying to a message, focus does not return to the text editor or controls

- Unable to access text editor, send button, or exit message using keyboard navigation (see Image 2c in full study)
 - **User Impact:** Keyboard users cannot complete messaging workflows, representing a significant usability and accessibility barrier.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** **HIGH**

Keyboard Interaction & Navigation (*macOS*)

New window creation after search requires mouse-based closure

- Keyboard navigation cannot close search windows or return to prior context (see Image 2e in full study)
 - **User Impact:** Flow disruption and additional interaction steps increase cognitive load and reduce usability for keyboard users.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** HIGH

Unnecessary tabbing and arrow key behavior prevents efficient result selection after search

- Arrow keys scroll the page instead of selecting results; result selection requires tab navigation
 - **User Impact:** Keyboard users cannot quickly navigate result lists or recover if an item is skipped, reducing workflow efficiency and usability. Gmail and Outlook use arrow navigation for result selection, creating inconsistent interaction models.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** HIGH

New search actions create additional windows that require mouse-based closure

- Keyboard navigation cannot close search windows or return to prior context (see Image 2e)
 - **User Impact:** Flow disruption and reliance on mouse interaction increases cognitive load and reduces accessibility for keyboard-only users.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** HIGH

Keyboard Interaction & Navigation (*macOS*)

Single-key navigation is difficult to discover or activate, limiting keyboard workflow efficiency

- Single-key navigation could not be reliably enabled despite guidance; emails cannot be opened with “O” or “Enter”
 - **User Impact:** Keyboard-only workflows are constrained, reducing accessibility and user productivity. This limits support for users relying on simplified navigation models.
 - **Priority:** **HIGH**

Tab navigation flow does not efficiently reach search results, leaving focus within the search context and requiring additional tab steps (see Images 9a–9b in full study)

- **Focus remains within the search interface and does not immediately surface result items, requiring extra tab interactions to reach selectable results**
 - **User Impact:** Keyboard users must perform extra navigation to reach results, reducing efficiency and usability of search workflows. This increases interaction cost compared to models where results are immediately accessible.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** **HIGH**

Keyboard Interaction & Navigation (*macOS*)

Global Search (replying to email): Pop-ups block keyboard access to preferences, requiring mouse interaction (see Image 2a in full study)

- Pop-up blocking prevents keyboard navigation into preferences or settings, forcing interaction via mouse
 - **User Impact:** Keyboard users cannot access settings or preferences via navigation workflows, reducing accessibility and workflow efficiency. Mouse dependency breaks keyboard-first interaction models.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** MID

Keyboard focus becomes unstable when switching between mouse and keyboard navigation

- Navigation state is lost after input method changes, requiring application restart or mouse reactivation to continue interaction
 - **User Impact:** Navigation context is lost, requiring application restart or mouse reactivation to continue interaction. This disrupts workflows and reduces usability for keyboard users.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** MID

Global search tabbing skips filter controls, limiting interaction to mouse-only workflows (see Image 2c in full study)

- Tab order bypasses filter elements, preventing keyboard access to refinement controls
 - **User Impact:** Keyboard users cannot access filters or refine results, reducing search efficiency and accessibility. Workarounds increase interaction cost and decrease usability.
 - **Environment:** macOS Tahoe 26.2 | Thunderbird 146.0.1 | MacBook Air built-in keyboard
 - **Priority:** MID

Study Notes & Observations

Keyboard Control

2a Unable to interact with preferences using keyboard control

Search... [K]

Inbox - mcafeekaci@gmail.com | Address Book | X | savory | X | Only Hours Left - Buy 2, Get 1 FREE | X

Only Hours Left - Buy 2, Get 1 FREE Spice & Easy! 1 Message | Quick Filter

Savory Spice <savory@savoryspiceshop.com> 11/14/25, 1:31 PM

Only Hours Left - Buy 2, Get 1 FREE Spice & Easy!

To protect your privacy, Thunderbird has blocked remote content in this message.

Preferences

Your Loyalty Club points: 143
100 points = \$10 reward. [Login now.](#)

[Free Shipping on Orders Over \\$49](#)

FIND A STORE [Savory Spice](#) **LOYALTY CLUB**

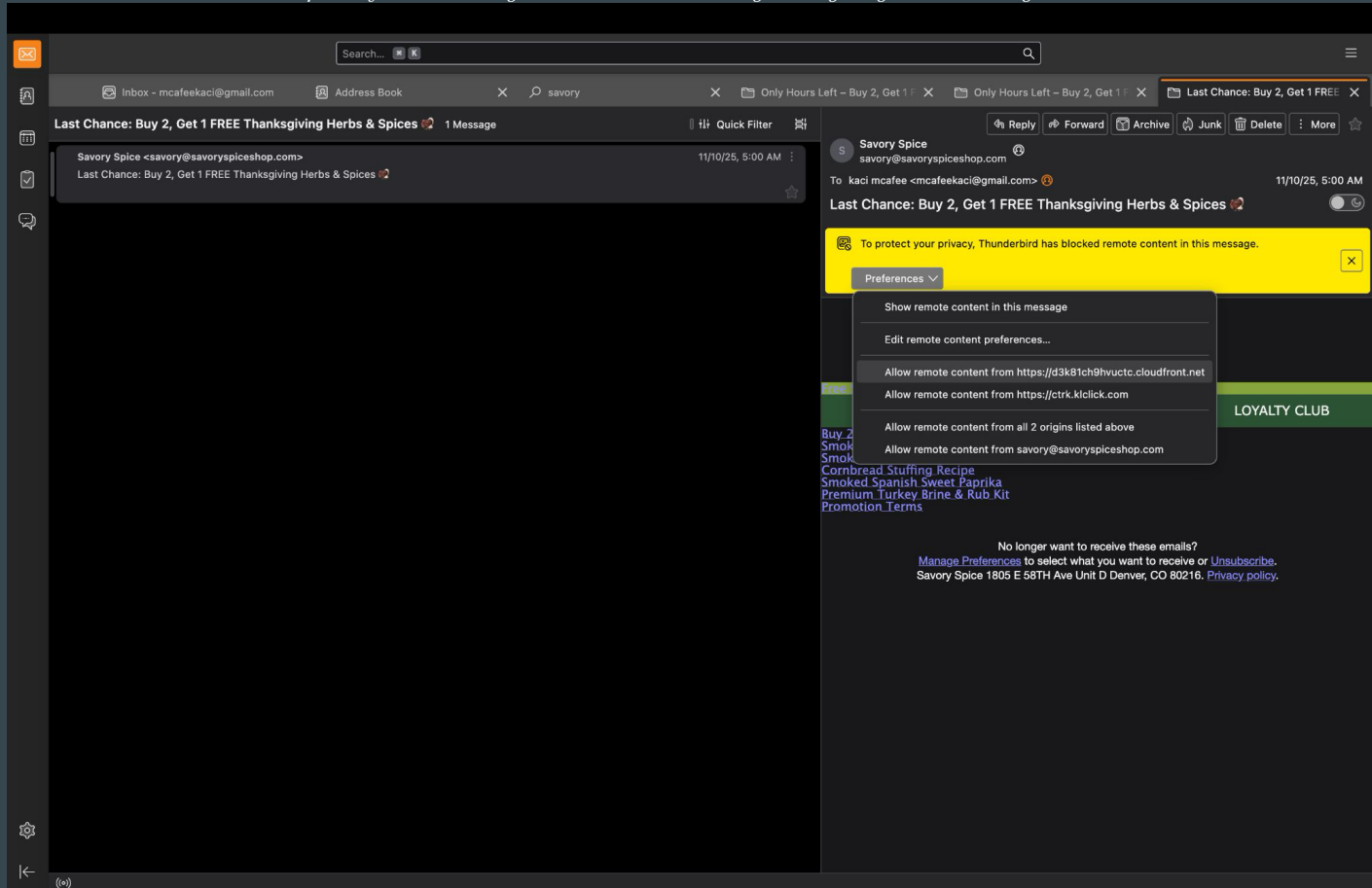
FINAL HOURS! Thanksgiving Deal of the Day Today Buy 2, Get 1 FREE* Spice & Easy Meal Starters Promo Code: EASY. Meals That Feel Like Home Cozy, nostalgic meals that come together quickly, but taste like they've simmered all day.
Taco Soup A cozy, one-pot soup you can make in just 30 minutes. Each spoonful is rich with savory goodness and the familiar spices of Taco Seasoning, a customer favorite.
Sunday Pot Roast A cozy, herb-filled blend made for your slow cooker and perfect for busy days when you crave the comfort of a homemade meal.
Sun-Dried Tomato Minestrone Bring everyone to the table with hearty soup made with a handful of ingredients and a few quick steps.
Premium Turkey Brine & Rub Kit Make this year's turkey unforgettable with three easy steps. Brine, season, and roast to perfection for a flavor-packed centerpiece that brings everyone to the table. \$20.00

*Offer valid online and at participating stores only. Must use code EASY at checkout for buy 2 get 1 free Spice & Easy. Excludes Gift Sets, select bundles, 3-counts, and collections. Limit 6 free Spice & Easy. Offer cannot be combined with Loyalty Rewards. No adjustments on past purchases. No rain checks. This offer expires 11:59 PM MST, November 14, 2025.

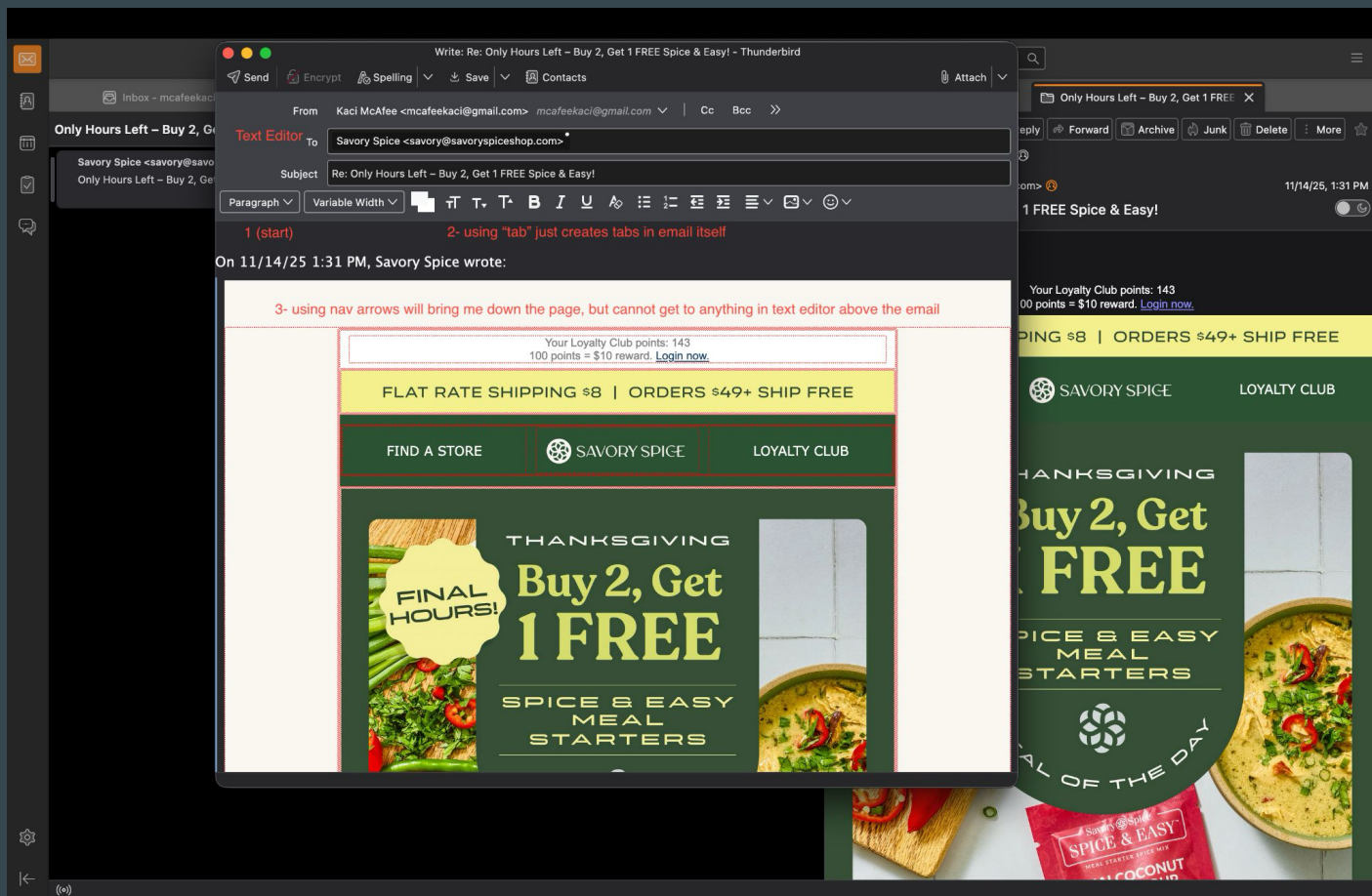
No longer want to receive these emails?
[Manage Preferences](#) to select what you want to receive or [Unsubscribe](#).
Savory Spice 1805 E 58TH Ave Unit D Denver, CO 80216. [Privacy policy](#).

mcafeekaci@gmail.com is up to date

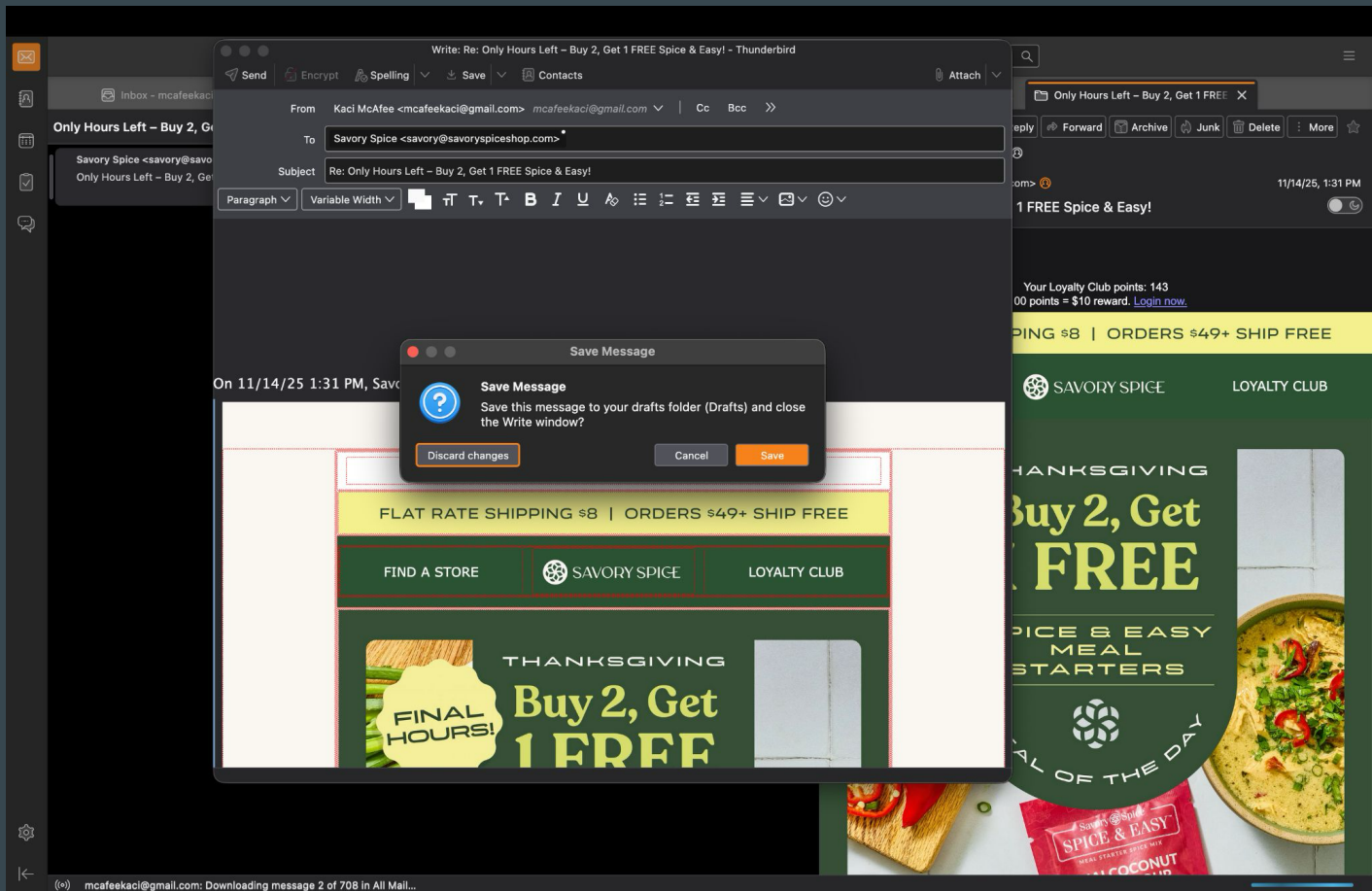
2b However, after using mouse to open preferences, I AM able to use nav arrows to move between options and use the enter key to select – therefore, just missing initial interactivity using keyboard navigation



2e After using “enter” to reply to an email, brings me to #1 on the page - tabbing/nav arrows take me to #2 and #3, but I am unable to edit the top portion of the email where things like “to/from” and text editor is



2d After using a mouse to close out message, I am able to use nav arrows and enter to interact with options



2e I can navigate between tabs using keyboard control, but unable to close them out

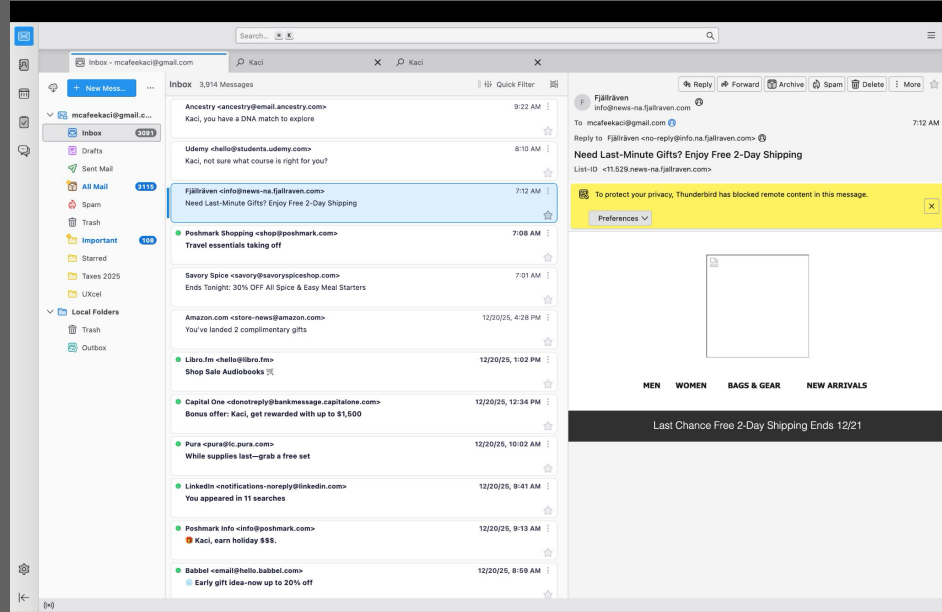
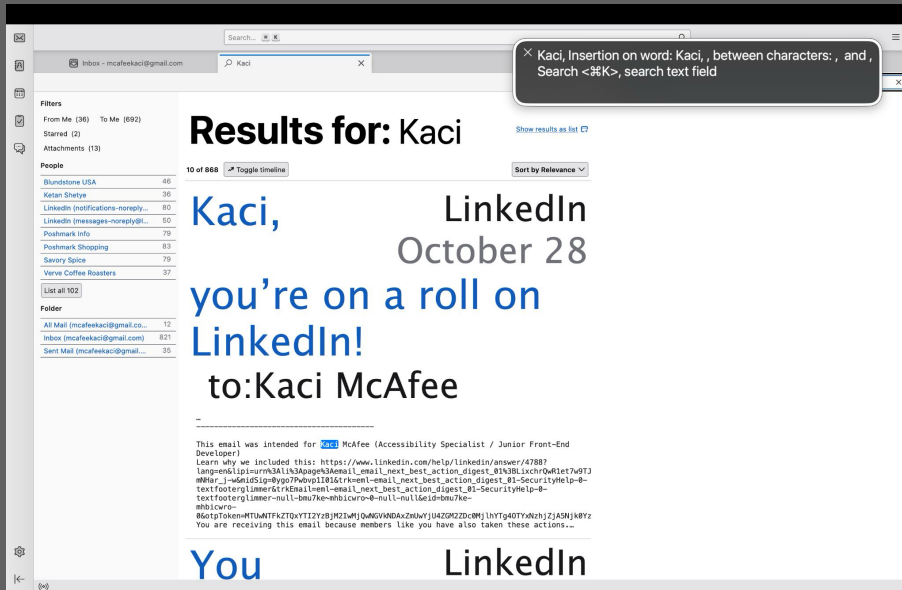
The screenshot shows a Gmail interface with search results for the term "udemy". The search bar at the top contains "udemy". The left sidebar shows filters for "From Me (0)" and "To Me (43)", and a list of people and folders. The main content area displays three search results:

- Results for: udemy** (116 results, sorted by Relevance)
- Refer a friend, save 20% on your first year of Udemy!** to: Kaci McAfee (Udemy, July 31)
- Kaci, turn your wishlist into career-advancing skills** to: Kaci McAfee (Udemy, October 20)
- Special offer: Make those wishes come true** to: Kaci McAfee (Udemy, December 8)

The first result is a promotional email from Udemy. The subject line is "Refer a friend, save 20% on your first year of Udemy!". The recipient is "Kaci McAfee". The email body contains a long URL: [https://ablink.students.udemy.com/ls/click?upn=u001.MPWQNoKfOWuci10G4G58ljn8X0B2-2FwB4C6mdz6rNETDF6HC12v8G1gWJNbbypxb-2BDb5b7mW0sjsqy1zEZ17mc-2B5Pd-2BYke1BFY42CZc0TTOECLNlEa9yZDdvu1nk10hfqtLun-2BEGWmjTAAJ3xpECUmLMEr5Ny9jCkan9yWH9z42Jt90M3x0WhUEKcw9mNR6npQ5CJ-2BEgNwRqgERzKBpWLR5zy8ee01tVayTtVBRK3MhS0ZP1S5nh9YSL-2BAsQK23puWDFAGHTRIFsqAW1SrLqEgs1vmvWfnSWD-2Btw3YqLuRUGg6kvjHH6vqHNbMjxqD25bbsKsGen16dyUA-3D-3de3Gh_xMgo0i-2Bx1q6daP40j7F95voV0z-2BIMFTsLL91E4d3BMN7z82F5Lo-2FF0JISx7ekNMhoQ33sm-2FYNYqDtL-2BviFzNuM-2FiBK29qzL4-2F97Mh-2FUATuYJcra5GMqMzWg1g3teJ823w1Jc5qAM0H7MfoDVYbeAoxwCnyCmIaZauQtr1BjbmA0pykLj28f5r0kVuT052FmJ8AfmfmjntKbqa8F5LjCsHkxmp00f407MvqIU-2Bw4LSEZLVDPxreB5Pm0SLUf0LDJ0CG7mD2qH5TfVnycfYKlcWcIz1X1ACpwJ7ZUWve7aHIfntwQ3wnxMytSTA92Bt66tqVluFSMzP3L0bmlwmkKABStLhxbXMArKX06wXooWcJ36I-2BV1DFJNmb1EM9L1LSIuaMDCu5JHTBgzKoiyuLhLYG91YPBmY7116YsijA56GcFp-2F73mTKXpa-2Fcto7mrv2LqL26u1vZwx1017KUZD4os7G941-2BIewnEtat9tkyZLWW-2Bucobhg8yjtJv5vcjhrL5uagTvnQUSIZ5nqDqboqA1DRWwaytrFfpk2XYVc2mZ9xh5b-2B5-2BkqJk1rE-2F0MQM07b95I26r5PdtkRcQqenQ-3D-3D\)...](https://ablink.students.udemy.com/ls/click?upn=u001.MPWQNoKfOWuci10G4G58ljn8X0B2-2FwB4C6mdz6rNETDF6HC12v8G1gWJNbbypxb-2BDb5b7mW0sjsqy1zEZ17mc-2B5Pd-2BYke1BFY42CZc0TTOECLNlEa9yZDdvu1nk10hfqtLun-2BEGWmjTAAJ3xpECUmLMEr5Ny9jCkan9yWH9z42Jt90M3x0WhUEKcw9mNR6npQ5CJ-2BEgNwRqgERzKBpWLR5zy8ee01tVayTtVBRK3MhS0ZP1S5nh9YSL-2BAsQK23puWDFAGHTRIFsqAW1SrLqEgs1vmvWfnSWD-2Btw3YqLuRUGg6kvjHH6vqHNbMjxqD25bbsKsGen16dyUA-3D-3de3Gh_xMgo0i-2Bx1q6daP40j7F95voV0z-2BIMFTsLL91E4d3BMN7z82F5Lo-2FF0JISx7ekNMhoQ33sm-2FYNYqDtL-2BviFzNuM-2FiBK29qzL4-2F97Mh-2FUATuYJcra5GMqMzWg1g3teJ823w1Jc5qAM0H7MfoDVYbeAoxwCnyCmIaZauQtr1BjbmA0pykLj28f5r0kVuT052FmJ8AfmfmjntKbqa8F5LjCsHkxmp00f407MvqIU-2Bw4LSEZLVDPxreB5Pm0SLUf0LDJ0CG7mD2qH5TfVnycfYKlcWcIz1X1ACpwJ7ZUWve7aHIfntwQ3wnxMytSTA92Bt66tqVluFSMzP3L0bmlwmkKABStLhxbXMArKX06wXooWcJ36I-2BV1DFJNmb1EM9L1LSIuaMDCu5JHTBgzKoiyuLhLYG91YPBmY7116YsijA56GcFp-2F73mTKXpa-2Fcto7mrv2LqL26u1vZwx1017KUZD4os7G941-2BIewnEtat9tkyZLWW-2Bucobhg8yjtJv5vcjhrL5uagTvnQUSIZ5nqDqboqA1DRWwaytrFfpk2XYVc2mZ9xh5b-2B5-2BkqJk1rE-2F0MQM07b95I26r5PdtkRcQqenQ-3D-3D)...)

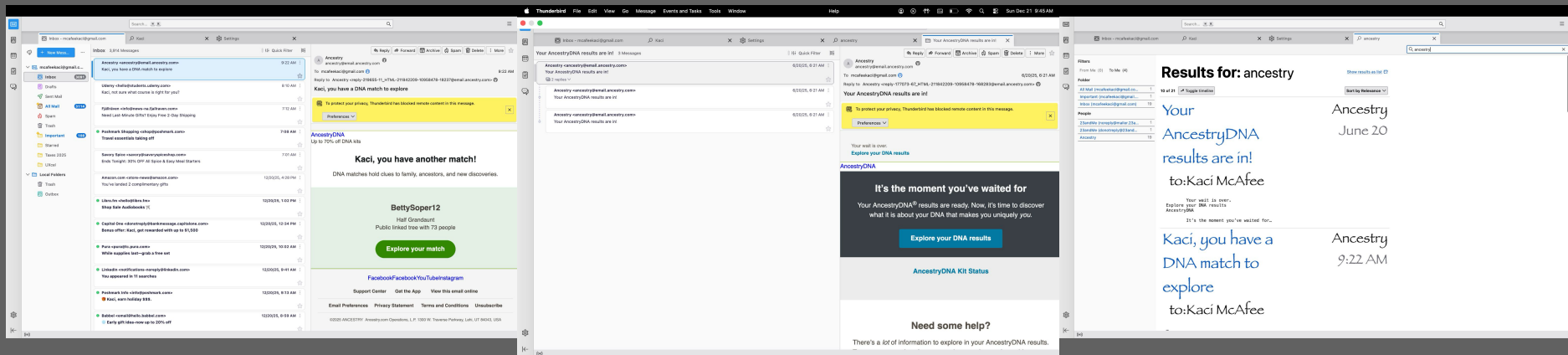
2f Thunderbird Font Sizes

Both are set to “64 pt” - but you can only tell after I had searched something (image on left)



2g Thunderbird Font Sizes

Changed to Papyrus, but again can only tell when searching - doesn't change the actual email or navigation font.



Keyboard Control (Tabbing/Nav. Arrows): Pros

- Able to use standard keyboard navigation between most areas to interact with emails and use global search bar (with some exceptions, detailed in “**Keyboard Control: Flaws**”)
 - **Last updated: 1/5/26**
 - MacOS Tahoe 26.2 / Thunderbird App 146.0.1
 - Mac Air Built-In Keyboard
- Radio Buttons and Filters- focus remains on section when tabbing, and can change focus state using navigational arrows and select filters using “enter”
 - **Last updated: 1/5/26**
 - MacOS Tahoe 26.2 / Thunderbird App 146.0.1
 - Mac Air Built-In Keyboard

Comparing Thunderbird to Gmail

Keyboard Control

(Gmail)

9a Gmail keyboard control after using global search bar

The screenshot shows a Gmail search results page for the query "savory 1- searched 'savory'". The search filters are set to "From", "Any time", "Has attachment", "To", "Exclude Promotions", and "Is unread". The results are sorted by "Most relevant" and show 1-37 of 37 results. A red annotation "2- immediately able to navigate emails with nav arrows" points to the first search result. A notification banner at the bottom asks to "Enable desktop notifications for Gmail." with "OK", "No thanks", and "X" options.

Search results for "savory 1- searched 'savory'":

From	Subject	Date
Savory Spice	Get It by Thanksgiving: Free 2-Day Shipping Ends Soon! - Savory Spice · Arrives By Thanksgiving FREE 2-D...	5:30 AM
Savory Spice	FREE 2-Day Priority Shipping With \$49+ Purchase - Sage & Roasted Squash Risotto Creamy risotto, simmer...	Nov 18
Savory Spice	\$15 OFF Your Order – The Last Deal Of The Day! - Savory Spice Logo · FIND A STORE · LOYALTY CLUB · FI...	Nov 16
Savory Spice	Thanksgiving Deal of the Day! 25% OFF Salt & Pepper - Savory Spice Logo · FIND A STORE · LOYALTY CLUB · Th...	Nov 15
Savory Spice	Last Few Hours To Get \$15 OFF Before Thanksgiving - Savory Spice Logo · FIND A STORE · LOYALTY CLUB · ...	Nov 16
Savory Spice	You've Earned A \$10 Loyalty Club Reward! - Savory Spice. LOYALTY CLUB · \$10 Reward · You Have A Rew...	Nov 3
Savory, Draft 2	Only Hours Left – Buy 2, Get 1 FREE Spice & Easy! - On 11/14/25 1:31 PM, Savory Spice wrote: Discover meals...	Nov 14
Savory Spice	Happy Birthday Month! Get Your Free Spice Blend - Savory Spice. LOYALTY CLUB · Don't miss your free s...	Nov 2
Savory Spice	Today's Deal: Buy 2, Get 1 FREE Spice & Easy - Savory Savings 70+ Spices Under \$7 Whether you're just startin...	Nov 14
Savory Spice 2	You're a Cardamom VIP! - Facebook. Instagram. Pinterest. YouTube. No longer want to receive these emails?...	Oct 5
Savory Spice	Buy 2, Get 1 FREE Holiday Essentials Ends Tomorrow! - Savory Spice Logo · FIND A STORE · LOYALTY CLUB · Bu...	Nov 9
Savory Spice	They're Here: This Season's Most Giftable Flavor Bundles - Savory Spice Logo · FIND A STORE · LOYALTY C...	Nov 11
Savory Spice	Saffron Salt Is Back for the Holidays! - Savory Spice Logo · FIND A STORE · LOYALTY CLUB · Saffron Salt i...	Nov 5
Savory Spice	Thanksgiving Deal of the Day! 20% OFF Baking Spices & Extracts - Savory Savings · Gourmet Hot Cocoa B...	Nov 12
Savory Spice	NEW! Honey Butter Seasoning - Perfectly sweet and savory with a touch of creamy butter	Nov 3
Savory Spice	Save On Must-Haves During The Thanksgiving Prep Sale - 100 points = \$10 reward. Login now. Free Shippi...	Nov 8

9b Thunderbird keyboard control after using global search bar

The screenshot shows the Thunderbird email client interface with a search for "Savory". The search results are displayed in the main pane, and a search dropdown menu is open. Red annotations with numbers 1 through 7 describe keyboard navigation challenges:

- 1** - searched "Savory" in global search bar
- 2** - nav arrows take me to quick search instead of emails
- 3** - tabbing brings me here, each tab takes me through "People" and "Folder" but skips filters
- 4** - brings me to "show results"
- 5** - Toggle timeline
- 6** - Sort by R
- 7** - finally at emails - **Nav arrows scrolls page down, doesn't allow me to hilgint each email; have to use tab, but unable to go back up if i need to - would have to tab all the way back though

The search results for "Savory" include:

- 10 of 395 results
- Saffron Salt Is Back for the Holidays! (November 5)
- Buy 2, Get 1 FREE Holiday Essentials Ends Tomorrow! (November 9)
- Peppermint Sugars Are Back for the Season! (October 12)
- Buy 2, Get 1 FREE on Flavors That Will Steal the Show (November 7)

The search dropdown menu shows:

- Messages mentioning: savory
- Savory Spice (savory@savoryspiceshop.com)
- Savory Spice (savory@hello.savoryspiceshop.com)

Keyboard Control Observations

(compared to GMAIL)

- Tabbing navigation seems to “flow” better in Gmail (see **images 9a-9b**)
 - **Last updated: 11/19/25**
 - MacOS Tahoe 26.0 / Thunderbird App 143.0.1 || Firefox 145.0.2
 - Mac Air Built-in Keyboard

- Able to tab through MOST of editing options on Gmail with tab/ nav arrows (e.g. send, exit, etc.) - BUT still can't access text editor; maybe I am doing something wrong with this as well, need to research more
 - **Last updated: 11/15/25**
 - MacOS Tahoe 26.0 / Thunderbird App 143.0.1 || Firefox 145.0.2
 - Mac Air Built-in Keyboard

Keyboard Control Observations

(compared to GMAIL)

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 - **Last updated: 11/15/25**
 - MacOS Tahoe 26.0 / Thunderbird App 143.0.1 || Firefox 145.0.2
 - Mac Air Built-in Keyboard

Comparing Thunderbird to Outlook

Keyboard Control

(Outlook)

12a Outlook offers a “skip to” option when activating keyboard control

The screenshot displays the Outlook web interface in a browser window. The address bar shows the URL `outlook.live.com/mail/0/inbox/fid/AQQkADAwATM3ZmYBLWE4YzQlNDU3Yy0wMAItMDAKABAA%2Fkwd6SX2HE%2`. The top navigation bar includes a search box and a button labeled "Skip to message list", which is circled in red. Below the navigation bar, the interface is divided into three main sections: a left-hand navigation pane, a central message list, and a right-hand message content area. The left pane shows the "Inbox" selected under the user account "mcafeekaci@outl...". The central message list displays three items, with the top one from the "Microsoft account team" selected. The right pane shows the content of the selected email, which is a security verification message from the Microsoft account team. The message text includes: "Recently, you verified the security info on the Microsoft account mc**i@outlook.com. This was a periodic security check which only happens if you haven't used a security code recently. You won't need to provide a code every time you sign in. It's important to keep the security info associated with your account correct and up-to-date. We'll never use this info to spam you or for any marketing purposes — It's only to verify your identity if there's ever a problem with your account. To learn more or contact support, [click here](#). To opt out or change where you receive security notifications, [click here](#). Thanks, The Microsoft account team [Privacy Statement](#) Microsoft Corporation, One Microsoft Way, Redmond, WA 98052". At the bottom of the message content area, there are "Reply" and "Forward" buttons. On the far right, there is an advertisement for EOS skincare products with the text "Your softest skin ever." and a "Shop now" button.

Keyboard Control Observations

(compared to OUTLOOK)

- Once on Outlook emails, I am immediately able to use nav arrows to select emails (in TB you select emails using Tab, which is a problem if you want to go back “up” to an email – you have to tab all the way through to return)
 - **Last updated: 1/5/26**
 - MacOS Tahoe 26.2 / Thunderbird App 146.0.1 || 145.0.2
 - Mac Air Built-In Keyboard
- Outlook does not automatically begin in the top left of website - I had to tab through all of my browser options several times to finally get to Outlook and attempt to view emails (see **image 11d**)
 - **Last updated: 1/6/26**
 - MacOS Tahoe 26.2 / Thunderbird App 146.0.1 || Firefox 146.0.1
 - Mac Air Built-In Keyboard
- After searching on Outlook I am immediately brought to emails, able to use nav arrows and enter to go between emails; in TB, using nav arrows scrolls the page, tabbing is only way to interact with emails
 - **Last updated: 1/6/26**
 - MacOS Tahoe 26.2 / Thunderbird App 146.0.1 || Firefox 146.0.1
 - Mac Air Built-In Keyboard