



Taskbar

User Testing #1 A/B

Goals

Gather feedback and validate designs for potential EOS UI taskbar changes related to the “Start” menu (Endless logo), Hot Corner, and Settings. We want to solve for known complaints/feedback we’ve heard in the past, and present the right taskbar grouping and behaviors.

- Provide an easy, discoverable way to get back to the desktop
- Improve discoverability of the App Center
- Understand whether Unified settings (Gnome 3) design is a friendly design for our users
- Prepare the right grouping functions for future features (e.g. Game Mgr for Endless Coding)
- Test discoverability and reactions to the Windowed mode (when multiple apps are open)

Main Takeaways

_Fast learning curve

Don't underestimate the user

_Open / close behavior

Old habits might change

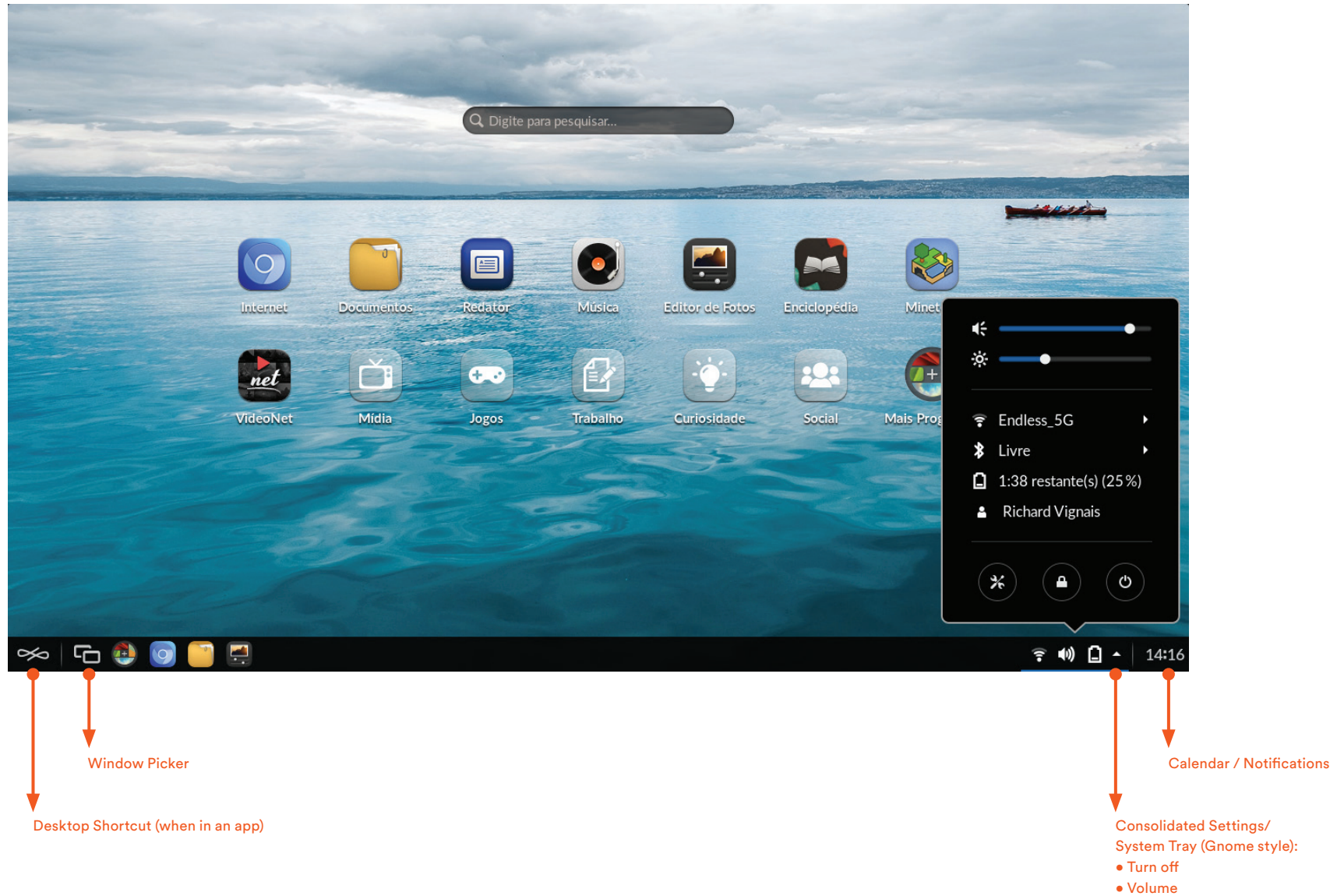
_Unified settings works

Not overwhelming and improves discoverability

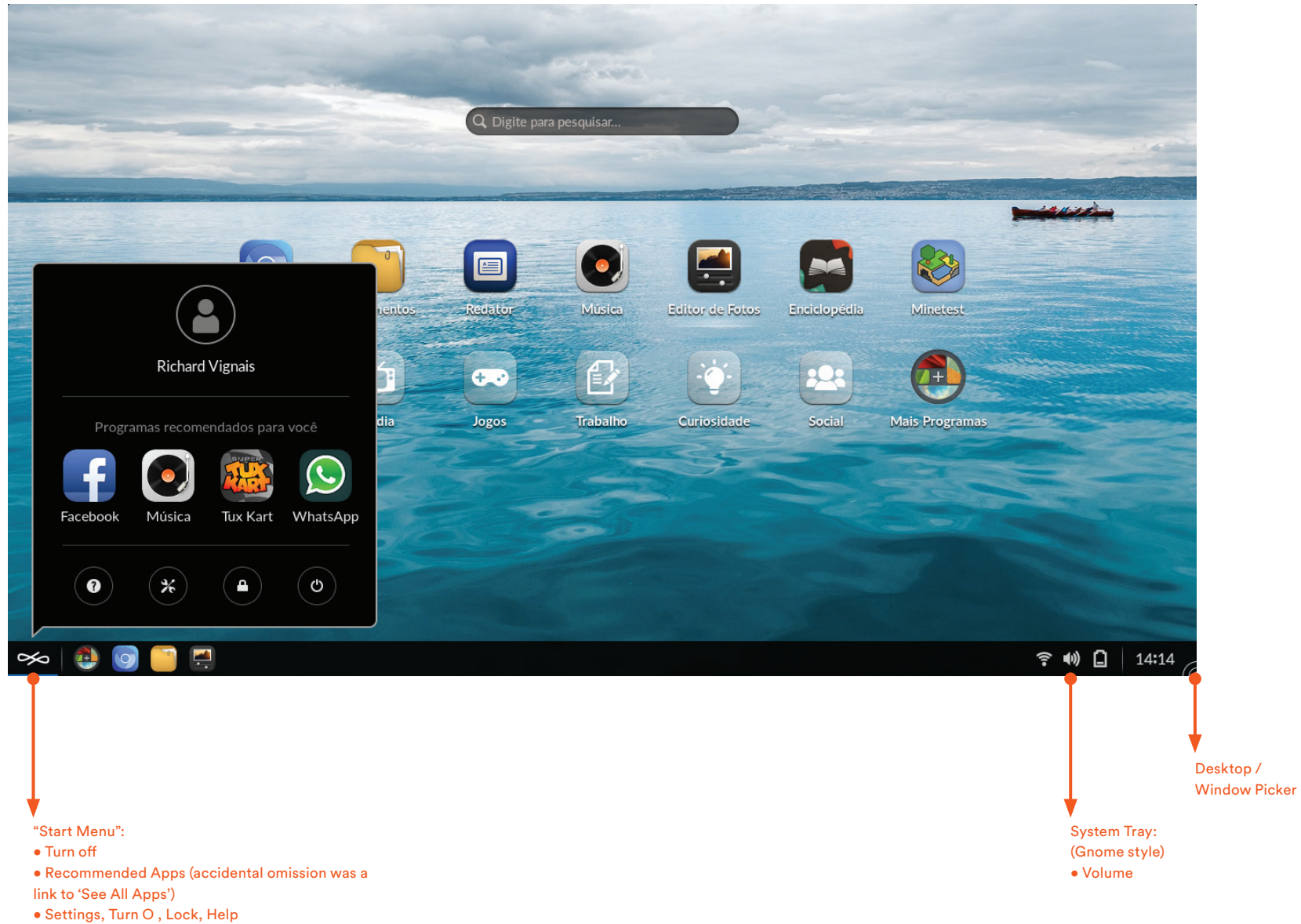
_Apps left / system right

Easy distinction btwn apps and system

Prototype A



Prototype B



Users

[More details about users](#)

Lucas

24 - Stagnated

Teresópolis, RJ

.
Windows paradigm - Intermediate.
No smart-phone experience.

Lucas had the strongest Windows paradigm of all interviews. He started with Prototype B (Endless logo = “start menu”) and understood it, which created confusion in Prototype A (Endless logo = shortcut to home) was an error.



Fabio

26 - Stagnated

Teresópolis, RJ

.
Windows paradigm - Basic.
Has LG Android smart-phone.

Fabio is a tech beginner, but a quick learner. He adapted easily to new behaviors. His first pattern was to minimized all apps, then he started using the mini icons to switch between apps. In the volume task, he noticed a way to turn off the computer and went back to it quickly and comfortably.



Quitéria

22 - Achiever

Teresópolis, RJ

.
Windows paradigm - Basic.
Has LG K10 Android smart-phone.

More technically advanced than others in the user set, but still a novice. Had a mix of Windows and mobile paradigms (e.g., Add/Remove and “deleting” apps). Learned also a few new tricks and instinctively started to reproduce them during the testing tasks.

[More details about users](#)

Lucas

47 - Self-directed

Teresópolis, RJ

.

Windows paradigm - Basic

No smart-phone experience.

Josué still struggles with some basic Windows concepts such as minimize and double click. He knew how to click and close. Showed a lot interest in Maths and other apps. He is an avid learner of his different work domains. Also start using new concepts learned quite quickly. A perfect “potential customer”.



Alan

24 - Apathetic

Rio de Janeiro, RJ

.

Windows paradigm - Basic.

Android paradigm - Strong

Alan had a more Android paradigm than Windows. He even struggled with closing apps. When asked to return to the desktop, he looked for the “Back/Arrow” icon common to Anroid. Slow learner.



Sergio

22 - Self-directed

Rio de Janeiro, RJ

.

Windows paradigm - Basic.

Has an Android smart-phone.

Enough knowledge of Windows paradigms to work a computer. Fast learner, explored and clicked more than the average. When faced with more controls in the adjust volume task, he started intuitively adjusting screen brightness and tried connecting to the Internet. However, he didn't immediately recall the turn off button when asked later.

Desktop Shortcut

The desktop represents a familiar “safe place” users look to naturally when opening new or switching between apps.

The most common way to return to desktop was by closing apps (minimizing was also instinctive).

Both shortcuts – hot corner, and the Endless logo – had very low discoverability.



[More details about the test](#)

Safe Place

The most natural reflex to open new apps or simply start doing any new action is going back to the desktop.

Minimize & Close

In order to reach the desktop, closing is the first behavior. When challenged to keep an app “open”, most user knew how to minimize an app. None tried to exit full-screen mode.

Android Paradigm

For one user, the imagery for going back to the desktop was the Android back/arrow, not an “X” for closing the app.

Poor Discoverability

Both tested options had low discoverability. Users do carefully read tool tip labels. Note: in the tested prototypes tool tips weren’t translated which impacted engagement.

When users clicked on any “back to desktop” button when they were already on the desktop, nothing happened. They thought it was somehow broken and usually didn’t explore that button further.

Hover feedback on the Endless logo was too subtle, and being an unfamiliar logo, users did not click on it.

Desktop Shortcut

Insight

A beginner's mental model of the desktop is centered around layers. When opening a new app, they are creating a new layer on the desktop. Understanding this, users were compelled to first close/minimize any app in the foreground before opening a new apps, even when tasked to keep the current apps open.

Since users resisted piling layers on top of each other, and also did not maximize the app window, they did not find the need for a desktop shortcut path. This is difficult behavior to test.

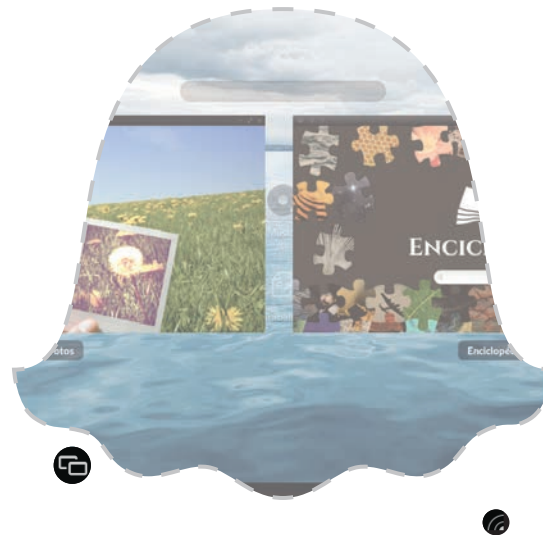
Desktop Shortcut

Design Suggestions

- Hover feedback & tool tips are effective ways to improve discoverability/explain UI behaviors.
- The desktop shortcut button is contextual; having a dedicated button that doesn't do anything adds more confusion.
- Neither the Endless logo or hot corner are recognizable or discoverable with users new to Endless OS.
- We should keep the hot corner for now, and keep trying to find a better solution for desktop shortcut in the future.

Window Picker

The “ghosting” effect in windowed mode was not noticeable. Also, users clicked on Window Picker icon without having apps opened and as nothing would happen, they did not engage further with the button. New hot corner experiment had no engagement.



[More details about the test](#)

Discoverability

No one was able to discover the function when needed to switch between apps. Lack of translation on tool tips may have negatively impacted engagement. Some users clicked the button with no apps opened; lack of feedback prevented further engagement.

Pinned Mini icons

One user discovered the Pinned mini icons on the task bar. This user understood the mini icons to be active/open apps, but was confused upon seeing the Appstore, Browser, and File Manager since they were not Apps he opened.

Multitasking

Users did not naturally exhibit multitasking behavior, keeping with a “one layer at the time” mental model. Exploration of the taskbar only happened when users were asked to open a new app without closing the current/open one.

Window Picker

Insight

Users' natural first step towards a multitasking paradigm is by understanding the mini icons on the taskbar. It would be good to reinforce users' conceptual understanding that these are the open apps. Then, we could explore a contextual button for Window Picker, grouped with the open apps.

Window picker is an advanced feature that is difficult for novice users to quickly understand.

Window Picker

Design Suggestions

Window Picker

- Window Picker is a contextual option, relevant only when multiple apps are open. Users are confused by a persistent button that does nothing when in the default desktop view.
- Grouping the app mini-icons with the windowed screen might help users connect to the feature of Window Picker.

Taskbar mini-icons

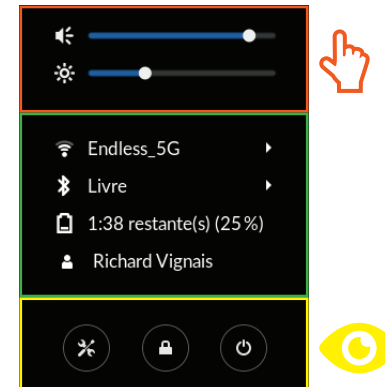
- Mixing the “Pinned” apps with open apps confuses the users’ understanding of what mini-icons signify. The current default pinned apps (Browser, Finder, App Center) should be moved into the “Start menu”.
- An additional indicator on the mini-icons showing which app is currently running (not just open) would be useful for users who do rely on it. This is a common pattern in almost all OS taskbars.

Unified Settings

Intuitive and natural. Users were not overwhelmed as assumed; some even used the opportunity to adjust other settings. A few users noticed the ‘Turn off’ button and easily went there when asked how they would power down the machine.

The upside down arrow was gold!

Users recognize this tiny icon to mean “more options” and the familiarity assisted engagement with it.



[More details about the test](#)

High Discoverability

Easy. Recognition of the most icons was strong enough for novice users to guess behaviors.

Upside-down arrow

The arrow revealed itself as the most clickable element on the taskbar. A big win. Users understood it to be the place to see all settings options. For changing volume, user recognized the speaker symbol, but clicked instinctively on the arrow. Being presented all settings mapped to users' expectations.

Turn off

Turning off the OS on the unified settings panel was more intuitive than expected. Users learned and adapted quickly.

Unified Settings

Insight

Our design principles encourage us to simplify as much as possible the options we present to our user. We want to remove unnecessary cognitive load without overly simplifying or removing common features. This is a fine balance.

The unified settings panel showed that even beginner users with weak computer/mobile paradigms were not get overwhelmed. In fact, the consolidation assisted discoverability and established one place to go to for settings. Converging upstream also has significant upsides, lowering the cost of ongoing customizations and benefitting from potential future innovations by the larger open source community.

Unified Settings

Design Suggestions

- Start by using the Gnome menu as is (unified settings, power off, calendar). We would keep the user account info in the Start Menu behind Endless logo.
- Ideally, we would make modifications to anchor the most common controls to the bottom (volume, Internet, etc.) would afford less cursor travel.

Start Menu

When Prototype B was the first option shown discoverability of the Start Menu features was strong. Users naturally understood it to be the concept of a “alternative starting point” for apps.

When Prototype B was shown second, the Start Menu was barely noticed. Other factors such as low brand awareness of the Endless logo, subtle feedback upon hover, and the lack of tool tip translation also contributed to low discoverability.

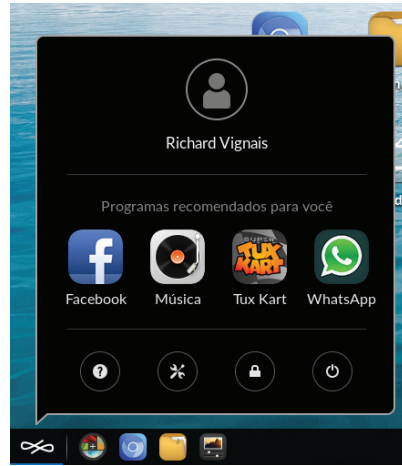
[More details about the test](#)

Apps' shortcut

Successfully used as shortcut for opening Music app.

Turn off

Surprisingly, there was low recall for the Turn Off icon in the Start Menu. Once users saw it in the unified settings tray – even if it was the second prototype they used – they went back there to look for it. This suggests that Turn Off maps more closely to settings than to the Start Menu.



Start Menu

Insight

The Windows “Start Menu” menu acting as a place to start exploring programs on the system is a powerful and positive paradigm we should leverage more. It makes sense to use the Endless logo to expose high value and frequent use features that create opportunities for the user to discover new experiences.

Separately, we should find ways to make the Endless logo more discoverable (more visible hover, brighter highlight state...)

Start Menu

Design Suggestions

- Bring pinned apps inside this panel: Browser, File Manager, App Center.
- Add an additional link “See all installed apps” to reinforce idea that Endless comes pre-installed with many apps (this takes you to the installed apps state inside App Center).
- Increase hover effect over Endless logo to improve discoverability.

Collateral Learnings



How users see the desktop

Icons, icons, icons.

Only the center of the screen.

Only 1 mention to global search bar and taskbar elements.

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- Double click
- Template A cards (read, no click)
- Search bar only Home (Youtube + Encyclopedia)

:)

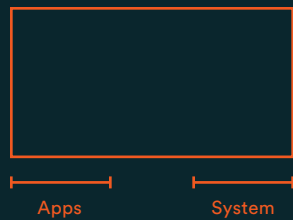
- Oops page worked well

Appstore

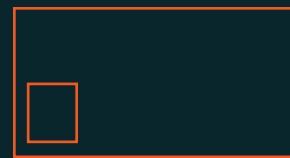
- Mini icon / desktop (dif. Labels)
“Central de Programas” worked better than “Mais Apps”.
- Confusing, sometimes the purpose wasn’t understood. Some issues with navigation and menus.
- “Easy to install and delete” compared to windows (mobile concept: one click installation)
- Some users still have the Internet mindset when browsing for apps. They don’t understand that the apps are pre-installed on the device and think they need to download/install.

Suggested Next Steps

Iterate user testing with an updated single taskbar prototype combining A and B

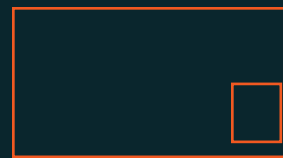


1_ We are an app centered OS. Separating Apps mgmt from OS mgmt increases user's learning curve.



2_ Migrate default pinned apps to Start Menu (Browser, File Mgr, App Center), and add 'See all installed apps'. This is a natural place to start for users, and we believe will have high discoverability and strong recall.

For now, keep the user account here, it's a nice for recognition and orientation.



3_ Merge upstream with Gnome's unified settings panel accessible from the system tray. Keep using the arrow as important call to action.



4_ Improve hover feedback for better communication and learning curve. Fix all tool-tip labels, work on hover micro-interactions (polish sprint).