

INTERFACES FROM 2010s

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Microsoft Surface (2012)

Google Glass (2013)

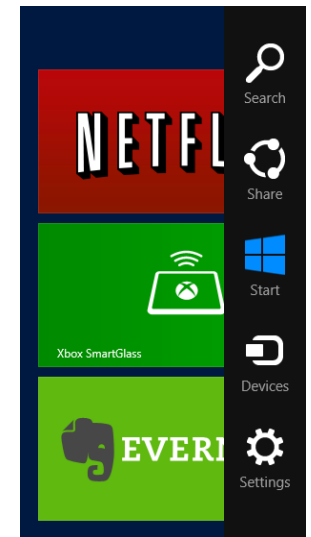
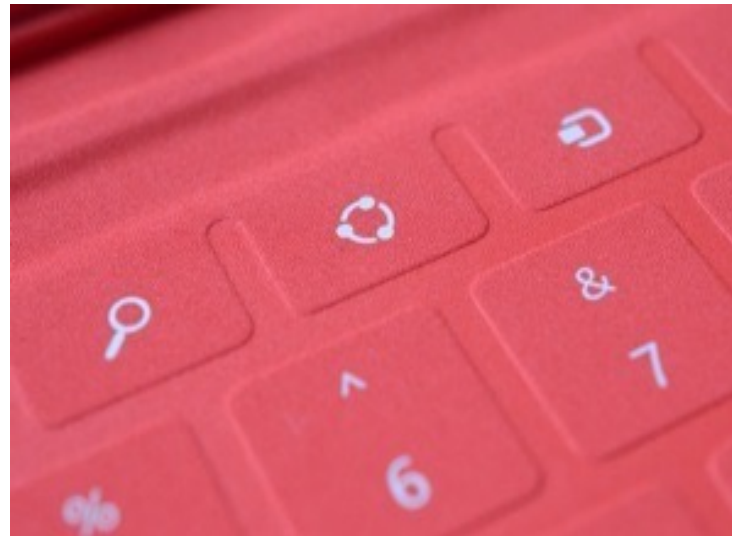
Example 01

2010s

Microsoft Surface (2012)

The Microsoft Surface, launched in 2012, was a significant piece of hardware that brought together a tablet's portability and a laptop's functionality. It played a key role in popularizing hybrid devices.





Good Feedback:

Visual and Haptic Feedback:

Visual feedback through **responsive animations and UI changes** ensured immediate responses, while haptic feedback with the detachable keyboard confirmed key presses.

Bad Feedback:

Lack of Detailed Feedback for Certain Actions: In some touch interactions, **feedback was insufficiently detailed**, with slight response delays and limited haptic feedback causing user uncertainty.



Good Affordances:

Dual Functionality: The Surface's design clearly afforded both tablet and laptop functionality. The detachable keyboard and kickstand offered a clear physical affordance for transitioning between these modes, making it intuitive for users to understand how to use the device in different contexts.



Bad Affordances:

Keyboard Affordance in Tablet Mode: When using the device in tablet mode, the on-screen keyboard sometimes lacked the tactile and spatial feedback of the physical keyboard, which could be less intuitive for users accustomed to traditional typing experiences.



Good Signifiers:

Clear Icons and Visual Cues: The Surface used **clear icons**, like the Start button and taskbar items, which acted as strong signifiers, **guiding users on device interaction and positioning**.



Bad Signifiers:

Mode Confusion: In some cases, **the transition between tablet and laptop modes wasn't always clear, especially for new users**. The interface didn't always provide strong enough signifiers to indicate which mode the device was currently in, potentially causing confusion about available features and input methods.



Good Mapping:

Consistent Interface Across Modes: Consistent touch gestures across modes made it easy for users to switch between tablet and laptop without relearning controls.

Bad Mapping:

Complexity in Multitasking: When multitasking, especially in laptop mode, the mapping of certain touch gestures and keyboard shortcuts could become complex, leading to a steeper learning curve. This might have hindered the intuitiveness of the device for users expecting a simpler, more straightforward experience.

Design Systems (Atomic Design)

Atoms : The Surface's interface elements, like buttons, icons, and touch targets, were designed for both finger and stylus input. The hardware design also considered these interactions, with a screen that was sensitive to different types of input.

Molecules & Organisms: These elements were combined into interactive components like the start menu, taskbar, and Windows apps, which provided consistent interaction patterns across the system.

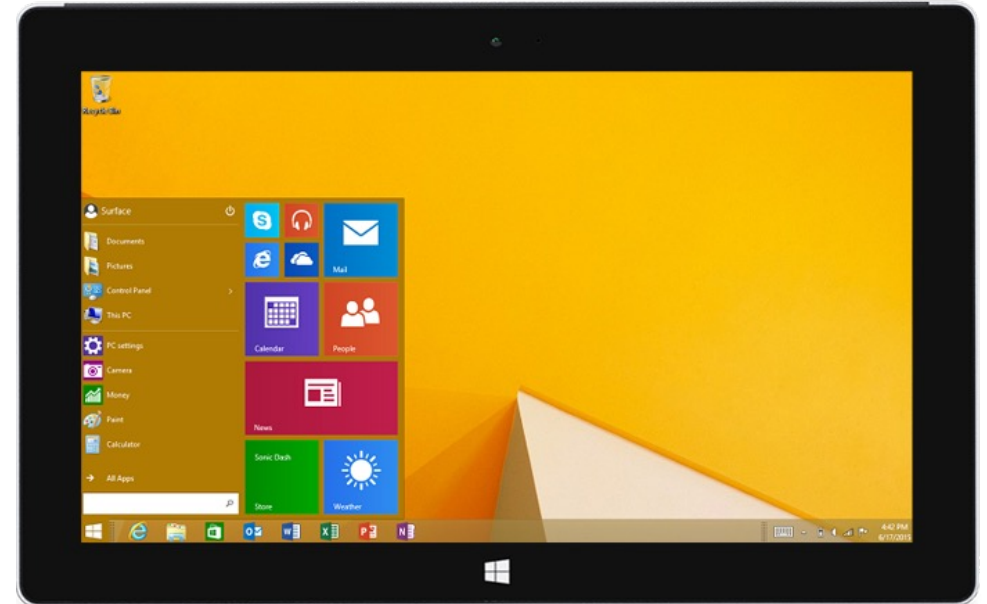
Templates & Pages: The Windows interface adapted to different modes (tablet vs. laptop) while maintaining a coherent design language. The dynamic adjustment of the interface according to the device's usage mode was a core aspect of its design system.

The first Microsoft Surface tablet faced several significant disadvantages that contributed to its lack of commercial success. Here are the main drawbacks:

Limited App Selection: The Surface ran on Windows RT, which had a much **smaller library of compatible applications** compared to Apple's iOS, making it less appealing to consumers.

Higher Price: The initial pricing of the Surface was higher than competing tablets, which deterred potential buyers.

Underpowered Hardware: It was equipped with an Nvidia Tegra 3 processor and only 2GB of RAM, **limiting its performance for intensive tasks**.



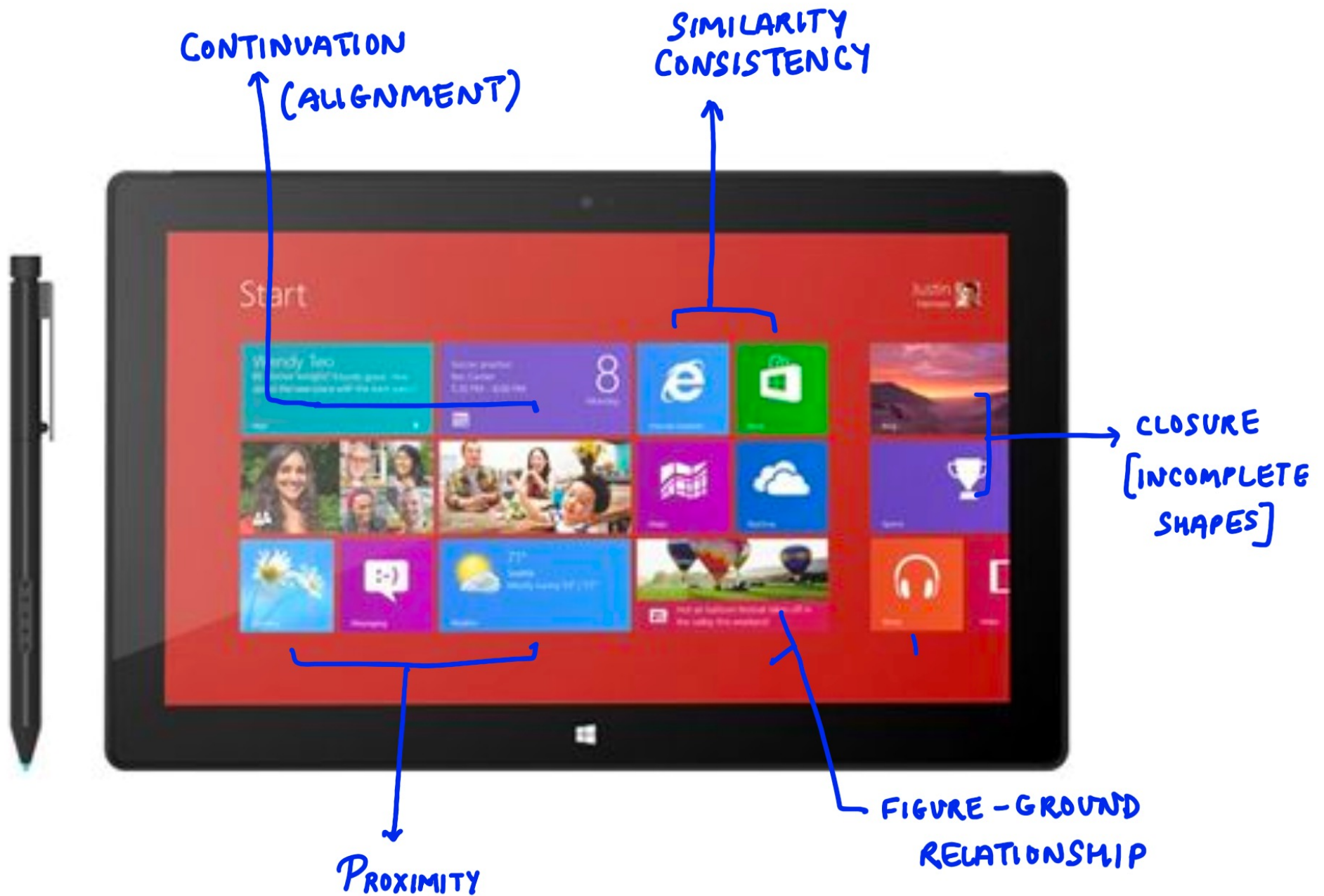
Awkward Design: The tablet was heavy and had an **angular design** that made it uncomfortable to hold for extended periods.

Outdated Software: The **preinstalled Internet Explorer was outdated**, and there was no support for more modern browsers like Edge or Google Chrome.

Storage Limitations: The base model offered **only 32GB of storage**, which was **insufficient** for many users, although it did allow for expandable storage via microSD.

These factors combined led to poor sales and a quick reduction in price shortly after launch.





Example 02

2010s



Google Glass (2013)

Google Glass, launched by google, is a wearable, voice and motion controlled android device that resembles a pair of eyeglasses and displays information directly in the user's field of vision.





Good Feedback:

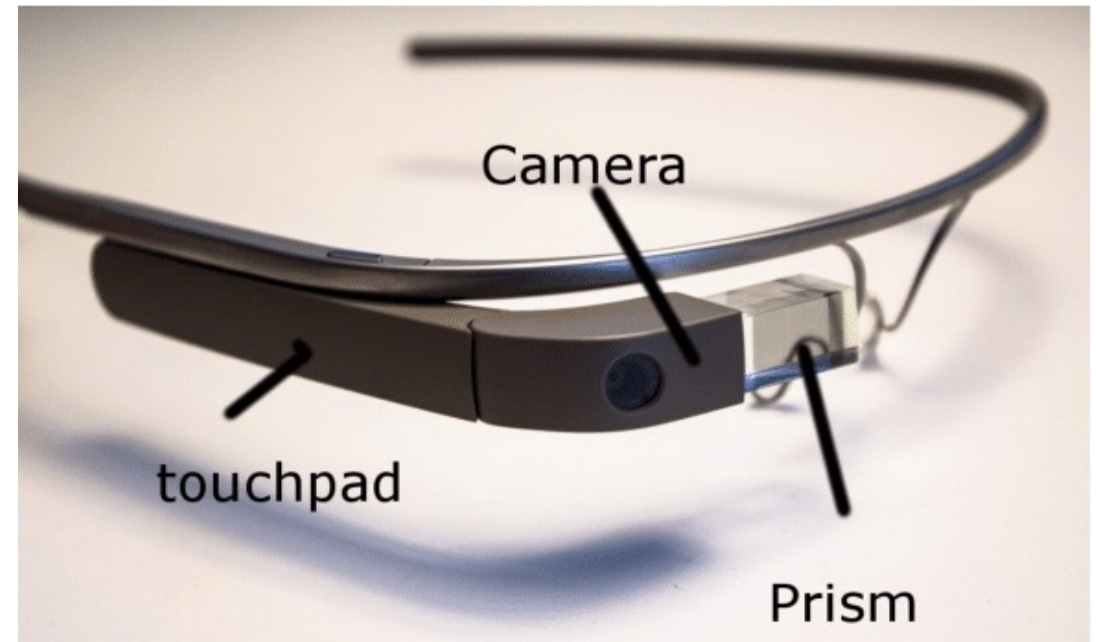
Google Glass provided **auditory and visual feedback**, such as sound cues when a command was recognized, or notifications displayed. This ensured **users were aware of the device's responses**.

Bad Feedback:

The **feedback could sometimes be unclear**, especially in **noisy environments** where voice recognition might not function correctly, leading to user frustration.

Good Affordance:

The touchpad's location and design offered clear affordances, making it evident how to interact with it through swipes and taps.



Bad Affordance:

The limited physical affordances of the small screen and touchpad might not have been intuitive for all users, particularly those unfamiliar with wearable tech.



Good Signifier:

The device used **clear visual signifiers, such as icons and simple text**, to guide users in interacting with the small display.

Bad Signifier:

The **lack of physical buttons or traditional input methods** might have led to confusion for some users, as the reliance on voice and touch input wasn't immediately apparent.



Good Mapping:

The mapping between voice commands and actions was generally logical, making it easier for users to perform tasks naturally.

Bad Mapping:

Inconsistent or unexpected responses to voice commands could break the expected mapping, causing frustration and reducing the overall user experience.

Design Systems (Atomic Design)

Atoms & Molecules: The UI elements, like text overlays, icons, and notifications, were minimalistic and designed to fit within the limited screen real estate of the display.

Organisms: These elements combined into simple, context-aware notifications and actions, allowing users to interact with information in a streamlined manner.

Templates & Pages: The design system ensured that the interface was consistent and non-intrusive, maintaining a balance between utility and distraction.

Thank You

*Used AI to help research and organize our information and thoughts.