Good and Bad Design – Human-Machine Interaction

Good Design example - Tesla Car Touchscreen

Objective: Provide an intuitive, all-in-one control center for drivers to access essential vehicle functions and information.

Good Aspects:

1. **Centralized Control**: The touchscreen consolidates most car controls into a single interface, reducing the need for several buttons.
2. **Customizable Display**: Drivers can often customize what they see on the screen.
3. **Clear Visual Feedback**: The interface uses high-contrast (ex: white car with black background) with a responsive visual feedback,
4. **Continuous Updates**: While highly irregular in the car industry, Tesla interface is updated regularly which means that the in case of an error or bad decision this can be solved with internet access. This helps tremendous with user interaction since it's customer feedback can be considered and used in the next interface update.

Why It's Good: This design excels by prioritizing usability, minimizing distractions, and allowing real-time updates, which enhances the driving experience. The centralized interface reduces clutter, and the customization allows users to tailor the system to their preferences.

Bad Design example – Airline Check-In Kiosk

- **Objective**: Facilitate self-service check-in for passengers to print boarding passes, choose seats, and check bags.
- **Bad Aspects**:
    1. **Slow, Unresponsive Touchscreens**: Many kiosks suffer from outdated software making them unresponsive and really hard to use.

2. **Complex Navigation Flow**: Multiple steps with unclear instructions cause confusion.
3. **Lack of Feedback**: When a user touches an option, there is no or minimal feedback, leading to repeating the same steps several times.
4. **Inconsistent Layout**: Different kiosks from different airlines and airports have different layouts, leading to differences in the user experience.

- **Why It's Bad**: The design creates frustration due to its unresponsive touchscreen and confusing navigation. This may result from cost-saving measures or a lack of priority on software updates.

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