

Proof of Concept/Prototype: Future of Restaurant Menus: Touchscreen Hologram Technology

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From the very beginning, menus were created in restaurants to provide an organized list of available meals for one to browse and select their order. Gradually, with the development of electronic touchscreen menus in recent years, the way one accesses information in this manner has advanced. Even the evolution of above-counter restaurant menus has come a long way: from plain printed paper, chalkboards, letter boards and digital menus to now: what we think will be holographic menus. With that said, our project will be about the Interactive Holographic Display Menu (IHDM) that restaurants may one day potentially use for displaying menus tied to touchscreen technology.

Physically, the way people go about to choosing where/what to eat has been changing drastically thanks to touchscreens. Currently, touchscreens (to an extent) impact the way we order, how quickly our food is made, and shapes our preferences regarding the restaurants we choose. At this point, we feel that since touchscreens are prevalent today for minor uses in the restaurant industry (the best example being in apps), the potential for it to become more integral outside people using their phones to order food and check/scan for coupons is quite promising.

Our vision of where touchscreens are headed in the future is holograms, specifically hologram menus. Here is how it would work: One walks into a restaurant and sits down. Instead of opening a physical menu or standing in line to look above, one presses a button on a table. A hologram rendering of each food item on the restaurant's menu would be projected from a device in the table's center. The user would be then prompted to touch in order to browse for meals. Touchable hologram technology is the closest modern representation of holographic displays that one would see in sci-fi movies such as those in the *Star Wars* and *Star Trek* franchises. Such display would be unique in that it could detect a user's touch by sensing movements in the air. The device would then provide haptic feedback to the user (if a command went through) by sending an ultrasonic air blast in return (a display signal to direct the user), which is ideal for interactive displays.

One could scroll through each item by touching and swiping the hologram; selecting what to eat would be done by double-tapping. If one had any specific preferences, an option to type would be prompted. The resulting action from choosing a meal would immediately send a signal to chefs in the kitchen to cook one's desired selection. This new way of ordering would essentially replace the need to have waiters and waitresses (just servers only). It would also effectively limit, if not prevent, customers accidentally getting allergic reactions or mistakes in their orders due to human error. Moreso, the eating experience would be less stressful (though not 100%) just in terms of the hassles of looking up meals in a wordy menu. One final remark about the IHDM is that it would allow one to see the food that is ordered.

There will be no more guessing for what certain ingredients are or if sauce comes on the side or not.

Sources

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