

URL: <https://stvp.stanford.edu/clips/how-screens-replaced-buttons>

Steve Vassallo, general partner at Foundation Capital, discusses how he applied the basic principles of design thinking years ago in order to incorporate the many features of an office phone in a simpler way. Then a designer at the renowned firm IDEO, Vassallo says the process of need-finding and prototyping led to a user-interface hierarchy that lives on in today's smartphones.



Transcript

- So I definitely had my work cut out for me.. But here I was, back to square one, back to doing the hard work of user observations, and ethnography, and need finding, and building prototypes, back to the hard work of being a user-centered designer.. Instead of just accepting that PRD at face value, I set up visits to go meet with a bunch of users who live on desk phones all the time.. We went to a call center in East Bay, a trading floor.. These are people who literally worked every day on their phones.. By doing this, I learned which features they understood and used all the time, and which ones made no sense.. In fact, I still remember seeing this phone that had Sharpie markings all over it because the user had no idea what the flash button actually meant.. I'm not sure I still know what it means either.. These were some of the priceless, on-the-ground insights that we absorbed that helped us build a much deeper, more informed, more intuitive sense for what a great desk phone could and should be.. That's when we began the hard work of synthesizing, putting all this stuff together..

We went back through that insane list of features and functions, and we graphed each one of them in terms of their frequency and their immediacy.. On this graph from left to right, low immediacy to high immediacy, and then top to bottom, low frequency to high frequency.. Those features that were high frequency and high immediacy, so things like dialing a number, or hanging up on someone quickly, or changing the volume on your handset, you had to access those with a hard key.. You had to get those right away.. But then there were all these features that had context associated with them, so joining two calls, or transferring a call.. Those were kinds of features that you could surface that functionality only when you needed it.. Then there were all these features, which were in the low frequency, low immediacy quadrant, things like changing your ringtone.. You might do it once.. You need it, but it is such a low frequency thing that we could actually have it buried deep down in the interface.. Instead of our phone having hundreds of buttons and looking like the cockpit of a 747, we developed and launched the world's first truly dynamic display based phone interface..

Features and apps that you use all the time would be right there on the top of the user interface hierarchy.. Kind of like today having those four apps at the bottom of your home screen on your iPhone.. Functions that were more contextual could be surfaced only when you needed them.. Now, I realize you all use smart phones today and this seems like a really obvious insight from a million years ago.. But at the time, breaking that dogma of more features means more buttons was actually a pretty big deal that actually ushered in the era of phones, of interfaces that would enable an infinite number of apps, and an infinite number of features and functionality, without having to have an infinite number of buttons.. That was a pretty big deal.. In fact, my iPhone has this wonderful ITO coated, chemically reinforced glass, but it only has three buttons on it, right? Maybe four, if you count the slide switch.. Now, not only were these phones transformed, but this entire industry was turned upside-down.. Companies like Nortel and Nokia, which used to have close to 50% market share and didn't make this shift, they literally are gone.. Cisco and Apple, which hadn't made a phone, are now basically owning these categories...