

## Elevator Pitch

***As we labor in our offices, designing a better way to configure a router or gritting our teeth over the expense-reporting system, it's possible that even just getting into the building and up to our floor was fraught with needlessly confusing interactions.***



It seems only yesterday that the VCR and its flashing 12:00 was the go-to whipping boy for the interaction field. “Gosh almighty,” the lament would rise. “What does it say about us if we can’t even make a usable digital clock, one that won’t blinkingly admonish us for our failures?” Note to younger readers: The VCR, now obsolete, was an entertainment device that “streamed” video information

directly from physical media, not unlike its successor, the nearly obsolete DVD player.

We’re stoked to propose an alternative that isn’t likely to be obsolete for a while: the elevator. Yes, as we labor in our offices, designing a better way to configure a router or gritting our teeth over the expense-reporting system, it’s possible that even just getting into

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the building and up to our floor was fraught with needlessly confusing interactions. Operating the common elevator seems like a no-brainer. Press the button, get in the box, go up or down, get out. But we've been encountering and documenting an array of curious design variations on this simple interaction, raising the question: Why?

Perhaps designing elevator interactions is the most unfulfilling job imaginable. Maybe elevator-designer bosses are gruff types who rarely express approval. We can picture these tragic figures, seeking validation, inadvertently swept along by the impulse to "innovate," to leave their mark upon the design solution, as a way to say to the world, "Yes, world, I was here."

Unfortunately, these "innovations" often come at a price. When familiar elements are reframed for no apparent reason, the experience comes to a screeching halt. At a shopping center near our home base in San Francisco, the elevator call button inexplicably points to the left. "Up" and "down" are not options,

just "left." (And no, it's not that the label on the button has been rotated—this was a deliberate design decision!) This elevator covers only two levels, and does not, in fact, go horizontally. Why does our eager designer offer us a nonexistent option?

Travelers at the Calgary airport may enter an elevator and see two floor choices: 3 and airplane. Somewhere in here is the punch line to a joke that only mathematics grad students would enjoy. This joke, which we aren't educated enough to actually come up with, would involve the phrase "ordinal numbers" and would explain the fate of 1 and 2. Similarly, Heathrow has a particularly inventive system that offers lift riders three options: levels 3, 0, and -2. While at least our designer stuck with numerals here, users wanting 2, 1, or the desirable -1 will find themselves thwarted. One gets the sense that our designer enjoys a satisfied chuckle after pulling one of these off.

Beyond playing with mental models and spatial matrices, our

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elevator designer may succumb to the impulse to Alessify the interface by getting inventive with fixed elements, such as the design of the buttons themselves. The word “button” calls to mind a rounded object for pressing, labeled, and indented or convex. But we found an elevator in a hotel in Sheffield, UK, where the only actionable part of the large oval target was not the touchable, bulging, Braille-encrusted region of the button, but instead a smaller, scalloped-out area. Your brain was guaranteed to tell your finger to press the wrong, unpressable part. Our designer rendered the most ordinary of interactions precious and unique, yet inscrutable.

Of course, factors beyond the direct elevator experience itself can require designers to adjust the core interactions. A desire for security and (we imagine) efficiency has led to a new twist on the old call-and-response scheme. Although we saw this in Seoul a few years ago, it's now proving irresistible to elevator designers here in the U.S., as well. In this system, upon reaching the

elevator bank you are presented with a small display and a numeric keypad. You press the number of the floor you want to reach, and the screen indicates a letter. If you press 2, the screen may briefly light up with “C.” You must then quickly locate the door marked “C” and wait there. The doors open and you enter. In some cases, your destination floor is repeated on an LED that appears on the leading edge of the sliding door, although you'd have to be pretty observant and move quickly to get that confirmation. Once the door closes, there are no buttons to choose your floor; you've already chosen it. As you are whisked away, it feels as if you've entered the assigned elevator on blind faith. Arrival at your floor feels magical, and not in the wondrous Mary Poppins sense. It's hard to shake the thought that entering the wrong elevator (easily done, with ephemeral cues and no error recovery) might have consequences that could spiral out of control. In this, our designer has dismissed the unfamiliar rider, offering no assistance or

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handholds to ease neophytes into this brave new process.

Sometimes physical constraints render optimal design impossible. The designer of an elevator system in a hotel in Austin, Texas, was challenged with a curious architectural configuration. The elevator shafts are not adjacent; they straddle hotel rooms. Walking down the hallway, you see rooms, then an elevator, then two more rooms, then the next elevator. Yet these elevators are called by the same panel of buttons. The design solution was to post a cautionary/ alarmist admonishment reading “STAY ALERT! This button calls both elevators!” with an arrow pointing toward the other elevator. If you think, as we did, that the arrow should point specifically toward “This button,” you will be disappointed; in fact, there are two buttons, one for up and one for down. The reason for this sign is that there’s no place where you can stand and easily see both elevators at once. You must approach one elevator to press the button, and if you stand there and wait, you are likely to miss the arrival

of the elevator if it doesn’t come to that door. As one vigilantly awaits the arrival of one or the other elevator, standard solutions come to mind: perhaps a light near each elevator door that would light up just before the elevator arrived and the door opened. Or mirrors. But our designer has instead opted to require that the hotel guest be alert when trying to get down to the lobby for breakfast.

So you’re designing an elevator...

Okay, maybe you’re not, but perhaps you are designing a simple or complicated set of interactions. Or a system that fits into a larger context (as most do). There are some lessons we can take away from this excoriating look at lifts. What would we encourage our elevator designers to keep in mind?

Ask yourself if the problem has already been solved (and pretty darn well). Is innovation required? Consider resisting the impulse to innovate! Revel in a good solution, inherited from those who have

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gone before. Isn't that what design patterns are about? A different experience is not necessarily a better experience, but it's almost certainly a more expensive experience from a development perspective. Question yourself and question your team. Spend resources making a difference where it really matters. Think about the investments made in executing the above-mentioned design disasters. It's not hard to imagine that those dollars could have made a difference elsewhere.

Don't put people in a position in which they will need to read your mind in order to use your design. Don't thrust folks into a state of bewilderment. If a new design is desirable or inevitable, ask yourself whether you are asking people to change their behavior or change how they accomplish something they already know how to do. If so, be honest about what you're doing and ramp them up. Help them be successful. For example, if you want people to interact with buttons in a completely different way, don't make the buttons look like buttons.

And finally, please engage people who already use or are likely to use your designs. What modest amount of usability testing would be needed to reveal that a horizontal button on a vertical elevator is confounding? An n of 1 would probably have done the job.

These are admittedly simple lessons, but of course they apply beyond amusing if shameful elevator designs. Strange and disorienting interactions abound. The elevator, like the VCR before it, is a too-present reminder of the fact that these basic practices are not pursued. As strategists and researchers, we'd love to investigate the organizations and their design processes to understand why, but without that opportunity we only have to look at the resulting artifacts to see that they weren't. We repeat (and encourage you to repeat) emphatically the need for these fundamentals. By considering the elevator, we can all rise to the top.

## **About the authors**

Steve Portigal is the founder of Portigal Consulting, a bite-sized firm that helps clients to discover and act on new insights about themselves and their customers. In the past 15 years, Portigal has interviewed hundreds of people, including families eating breakfast, hotel maintenance staff, architects, rock musicians, home-automation enthusiasts, credit-default swap traders, and radiologists. His work has informed the development of mobile devices, medical information systems, music gear, wine packaging, financial services, corporate intranets, videoconferencing systems, and iPod accessories. He writes regularly on topics from interaction design to pop culture for interactions, Core77, Ambidextrous, Johnny Holland and the Portigal Consulting blog, All This ChittahChattah. He is an avid photographer who has a Museum of Foreign Groceries in his home.

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