

The Last Byte

Transitional Phones

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■ **TRANSITIONAL FOSSILS ARE** the ones that exhibit intermediate states between an ancestral form and its descendants. This concept can be applied to technology, for instance, mobile devices. The first phones with primitive Internet capability were transitional between voice-only phones and the smartphones of today.

In a way, existing species might also be transitional. Elephant seals, which can be found on the Californian coast, cannot eat on land, only in the water, but can't give birth in the ocean, only on land. Will they evolve into a species that can give birth in the water? We do not know.

Current technology might be transitioning into something else also, but we don't know what it will be. The ongoing work on the design and management of mobile platforms, described in this issue of *IEEE Design&Test*, should enable future generations of mobile devices.

What will the mobile devices of the future look like? The future human is supposed to be smarter than we are, so we can naturally suppose that the future phone would also be smarter than our existing smartphones. How will we use this enhanced electronic intelligence?

How about for a personal digital assistant (PDA)? Sure, the term has a bad taste since we had things called PDAs before and they were rather stupid. Our phones swallowed up all their capabilities; however, a true PDA would just be like a human assistant, only better.

Our phones already remind us of appointments, tell us how to get somewhere, give us the latest news

and sometimes figure out which day we shop at a store and send us coupons for our upcoming trip, and then ask us how we liked the place. An evolved phone, a real PDA, could do a lot more.

Say I am walking in San Francisco, like I used to do before shelter-in-place. I walk past a used bookstore. My phone, knowing my book database, could talk to the store's database and let me know that the store has a batch of books of the type I buy, but which I do not own.

Okay, this example is unrealistic. I never walk past a used bookstore. I only walk into them.

When I am ready to go home it can tell me the closest bus that will get me to a Bay Area Rapid Transit (BART) station, and when the next bus is due to arrive. I do this already, but it involves using an app and preselecting a BART station, perhaps not the optimal one.

The idea is that instead of having to open an app to do something, the phone can do it for me, interact with the app, and give me what I need to know. It can also guard me against store apps which yell at me like sidewalk hawkers as I walk past.

Well, there is only one problem. When I was young, a person talking to himself on the street would be considered meshuggah. Now he is just on the phone, often yelling out the most intimate details of his life and business for all to hear. With a PDA you will do this for even more of your life. I'm not sure whether I can take it.

BUT SOMEDAY I will walk down the street with a headphone on, talking to myself. No call, just talking to myself. It will be fun. And, yes, I will never get caught. ■

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