

# [Nostalgia Corner] - Project Ara, the impressive but ill-fated 'puzzle' smartphone project

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In 1981, the IBM PC was released, and thanks to a strange decision by IBM, it became the ancestor of most computers and laptops today. That strange decision was that instead of doing everything themselves (like previous IBM projects), the design team decided to outsource as much as possible.

This created an open platform that allowed other companies to create accessories, write software, and even build a whole product category called "IBM PC Compatible". Since the IBM PC used an Intel microprocessor (8088) and Microsoft software (PC-DOS and Microsoft BASIC), it also marked the birth of the "Wintel" giant.

The mobile phone market never had an 'IBM PC' moment. There was a brief period where the memory card slot on a phone was used as an expansion port. You could add cameras, WiFi connectivity, GPS receivers, etc. through that port.

But those days are over, and most smartphones today are completely sealed. Batteries are no longer replaceable, and smartphones with memory card slots are rare.

Project Ara was born with the promise of opening a new era for smartphones, where users can easily change and upgrade components when needed. It was partly inspired by the Phonebloks concept and started as a project inside Google-owned Motorola Mobility. Previously, the search giant bought a number of patents related to modular phones from Modu, a pioneer of modular phones.

At MWC 2008, Modu made a splash with a tiny phone that could be outfitted with different "jackets." For example, the Slim Jacket offered simple feature phone controls, while the Boombox Jacket had built-in stereo speakers. Modu even partnered with Bosch/Blaupunkt to create a car player that could play music from the phone.

The idea behind Project Ara is completely different. Google wants to develop a main skeleton, or 'endos.' This would be the only component that Google/Motorola would develop. A display would be attached to the front, while the back would be reserved for expansion modules.

For example, users can add more battery capacity, add more speakers. Modules are also hot-swappable, so you can carry additional accessories in your pocket and transform your phone in the blink of an eye.



Project Ara is planned to come in three sizes: small (about the size of a Nokia 3310), medium (about the size of a Nexus 5), and large (about the size of the Galaxy Note 3, which will be released later). The larger the skeleton, the more modules you can connect.

For the starting price you get a starter kit that includes a skeleton with a low-speed CPU, a small battery, basic connectivity, and a display module. You can then buy whatever modules you want.

With Project Ara in hand, you can copy any trend in the market in minutes. Want more cameras? Easy. Want a screen on the back? Easy. Want game controllers? Why not?

Google is dreaming big, ambitious dreams. They're even thinking about chaining the skeletons together to accommodate as many modules as they want. The modules will be 3D printed (including the housing and electrical components), which opens the door to thousands of highly customized modules.

But none of those ambitions came to fruition. The 3D printing system and the clever magnet system to protect the modules were scrapped. Ultimately, the entire Project Ara project was killed.



Some remnants of Project Ara have found their way into Motorola's MotoMods project. We've seen various mods like a Hasselblad camera, a Polaroid photo printer, a gamepad, and most recently a 5G modem. But in the grand scheme of things, MotoMods have never been as good as Project Ara.

You can only attach one MotoMod at a time. The other difference is that Motorola sells you a complete phone, with no ability to swap out its components. Replacing old or broken modules and reconfiguring the phone's basic setup is the focus of Project Ara.

Not only at that time, the promises that Project Ara made were attractive to current smartphone users.

For many people, the only reason to buy a new phone is to get a better camera or because the battery in their old phone is dying. With Ara, those problems can be solved quickly and at little cost. Without Ara, you have to spend a lot of money to upgrade your phone, an all-or-nothing choice.

That is also the main reason why Project Ara failed. If this project is successful, users will change their consumption habits. Instead of spending a lot of money to upgrade the whole phone, users can now upgrade and replace only the modules they feel are necessary. This will greatly affect the revenue of smartphone manufacturers as well as the supply chain behind.

Being an extremely innovative and industry-changing idea, Project Ara faced a lot of opposition. Most of the big names in the industry were against the idea and did everything in their power to prevent Project Ara from succeeding.

Another reason why Ara died young was the lack of supporting technology. In the years 2013 to 2016 and even now, Project Ara was something ahead of its time. The limitations of technology have hindered the development of this ambitious project.

Hopefully in the coming years, when the auxiliary technology is mature enough, Google will return to this idea to bring consumers a solution that can be said to be omnipotent for all situations.

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