

To turn docs into apps, Coda had to rethink productivity from scratch

This new service looks a little like a word processor and a little like a spreadsheet. But it's trying to move beyond 40 years of software history.



When you think about it, the history of productivity software is surprisingly short on disruptive moments. Google Sheets, for instance, may be web-based and collaborative, but its conceptual bones are the same as those of Microsoft Excel (established 1985), which itself followed the lead of Lotus 1-2-3 (1983) and VisiCalc (1979). That's not a knock on Google; it's just proof that the spreadsheet has remarkable staying power as a workplace tool. The same is true of the word processor, presentation package, database, email client, and a few other eternal verities of business productivity.

Popping out an improved variant on a decades-old software theme isn't

that tough. What's daunting is building something new that doesn't fit neatly into an existing category. If people don't see immediate benefit in adopting it, they won't try it in the first place. And even if they do give it a shot, they may quickly abandon it if it doesn't have plenty of headroom for more advanced users.

All of which makes for an intriguing challenge for a startup, with offices in San Francisco and Seattle, called [Coda](#). Launch its web service, and you might mistake it for a word processor: You'll see a toolbar at the top, a field of empty white space, and a flashing cursor. Like a spreadsheet or database, it's dedicated to wrangling business data. But instead of just storing it away and then retrieving it, the service provides rich tools for *doing* stuff with it.

Coda is the brainchild of Shishir Mehrotra and Alex DeNeui, two old friends who met at MIT and then worked together at both Microsoft and YouTube before starting the company. As they were formulating ideas for their startup, they considered the state of productivity tools and then asked themselves, "What if we started from scratch?" explains Mehrotra, now the company's CEO. "We're going to build a new type of doc that blends the best parts of all the docs you know: documents, spreadsheets, presentations, applications. The core thesis is that you can build a doc that's as powerful as an app." (Though the name "Coda" is "a doc" spelled backward, they only noticed that after they were already considering it.)

Quentin Clark, Dropbox's senior VP of engineering, product, and design, met Mehrotra and DeNeui years ago when they all worked at Microsoft and is now on Coda's board. Even at Microsoft, he remembers, they tossed around ideas that are now reflected in the startup's service. But it would have been difficult to implement them in an existing, familiar product such as Office or Google's G Suite. "The incumbent tools are really anchored in physical constructs," he says. "The word processors are anchored in the sheet of paper that could fit in the Gutenberg press. Excel

and Google Sheets are really constructs that have been developed out of the ledger books that sat underneath the counter at the very first taverns and inns." The fact that Coda started out with no users and no fear of discombobulating them was liberating.



[Image: courtesy of Coda]

Coda does, however, have a clear vision of the sort of people it wants to please. When the service formally announced itself a year ago, Mehrotra wrote a [blog post](#) that referenced one user's description of the service as "*Minecraft* for docs." Like the [block-building game phenom](#), Coda is less about what it does right out of the box than what people can build atop it; it's a tapestry for ambitious creativity. The company calls its users "makers,"

held a "block party" event in September to cultivate the community, and has even commissioned caricatures of some of its biggest superfans as blobby little characters who look like they could have stepped out of a video game.

Describing your product as the *Minecraft* of anything is setting the bar high. For now, Coda remains a work in progress, widely used by beta testers but not due for general release until 2019. As if to remind itself daily of the enormity of the work ahead, the company has named the conference rooms in its San Francisco office after products it admires: VisiCalc, Lotus 1-2-3, Harvard Graphics, Apple's Hypercard, and even Microsoft's obscure first spreadsheet, Multiplan. All once important; all defunct. Like I said, many of the disruptive moments in productivity software happened a long time ago.

Everything in one place

Coda is not exactly without competition. QuickBase (founded in 1999), Smartsheet (2006), and Airtable (2012), for instance, are all web-based services that allow a company to devise rich, custom app-like experiences based on its own data. But while those offerings feel like extensions of spreadsheets and databases as we've known them, a Coda document's more free-form shell makes for a different environment. You can embed multiple spreadsheet-style tables within a Coda doc, bridge them with explanatory text, insert elements such as calendars and images, and add app-like controls like buttons and sliders. The idea is to let teams keep multiple pieces of data and related functionality in one place that everybody can access all at once—a Coda doc—rather than scatter them through discrete files stored somewhere like Google Drive.

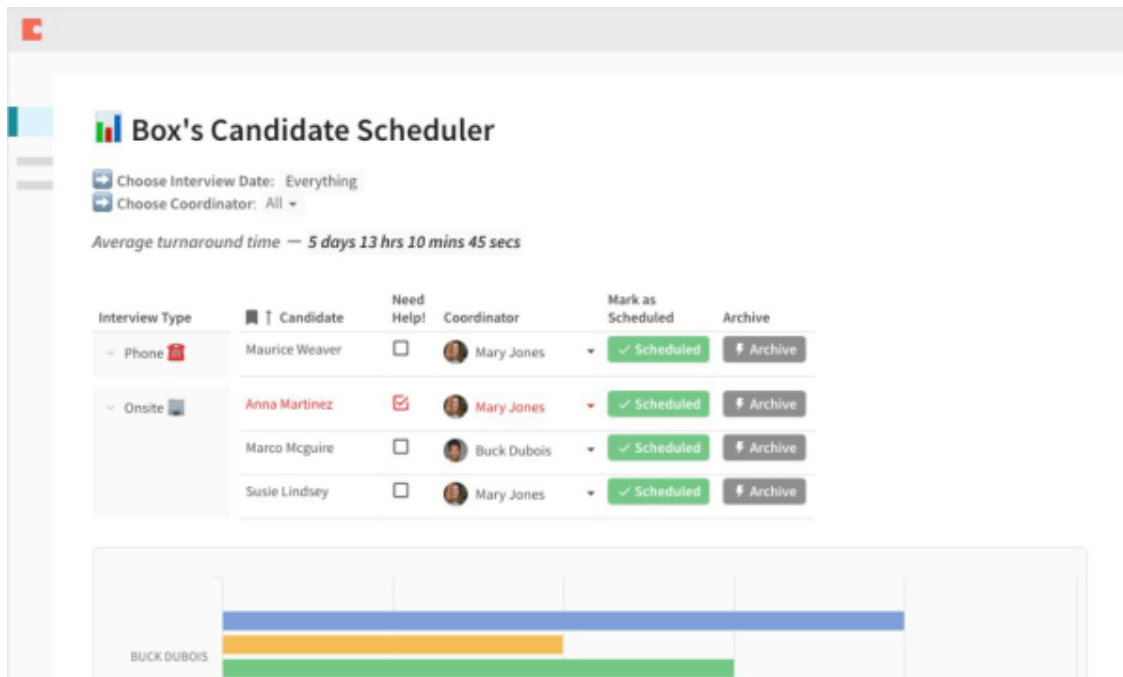
Along with its spreadsheet- and word processor-like elements, Coda even throws in a dash of presentation package: A "present" button flips into a full-screen mode and lets you step through your doc as if it were a PowerPoint.

If all you're doing is accomplishing tasks that would be equally achievable in a word processor, spreadsheet, or presentation app, there isn't much reason to consider Coda. It starts to get interesting when you use all its features to assemble something that looks like an app—one built precisely for the needs of your business.

"In every company, the secret sauce doesn't fit in packaged software that the company uses for its workflows," says Coda board member Hemant Taneja, a managing director at venture firm General Catalyst. "It's in one or two people that have been there a long time that have a unique way of doing business. What Coda does is to let you institutionalize that secret sauce."

At Uber, it was indeed just a couple of employees who [spearheaded the](#)

[creation of an internal project manager system in Coda](#); it worked so well that it's now in use by hundreds of their colleagues. Similarly, Box used Coda to create its own system for managing job candidates.



Box manages its hiring process using Coda. [Image: courtesy of Coda]

You'd expect tech-centric companies such as Uber and Box to bond with Coda, but other beta testers, far outside the Silicon Valley bubble, are also finding it useful. Hudson Henry Baking Co., a maker of small-batch granola, is based in a one-stoplight town in Virginia. Founder Hope Lawrence had begun experimenting with Coda when she hired Michele Durst as packing and shipping manager. Durst happened to have a past life as a Wall Street tech executive, which helped her dive into Coda to build useful tools tailored specifically to the business of baking and selling granola.

"We have a bake sheet, we say, 'Here's what we're making today, here's the ingredients that you're supposed to use with the associated lot numbers,'" says Lawrence. "It's a one-pager, and I print that out and give it to the bake team." Another bit of Coda functionality allows the company to track when it's time to ping a retailer to solicit a new order based on its past purchases. "We're in Coda all day long, every day," Lawrence says.

Turning people into programmers

For all the ways in which Coda attempts to break free of productivity software's past, some of its overarching ideas have a long history. A quarter-century ago, Microsoft built the Visual Basic for Applications programming language into Office; even before that, it offered automation tools such as WordBASIC. Many companies have leveraged Office's programmability to create bespoke tools for their particular line of business. But though well over [a billion people](#) now use Microsoft's suite, the percentage that has written code must be tiny. That work is typically undertaken by specialists or even outside consultants.

By contrast, Coda sees the ability to make a doc do almost anything as having a democratizing aspect—and certainly not something that necessitates dependence on IT experts to do the heavy lifting. “We think that the people most equipped to build their own tools are the people that are actually doing the work,” says Mehrotra.

Composing formulas in a spreadsheet is not a particularly exotic skill, and building simple functionality into a Coda document isn't a dramatically more advanced task. (In at least one respect, it's easier: You can give cells meaningful names rather than trying to remember rows and columns.) But the more ambitious you get in Coda, the more it starts to feel like coding. The service has copious amounts of documentation, and needs it.

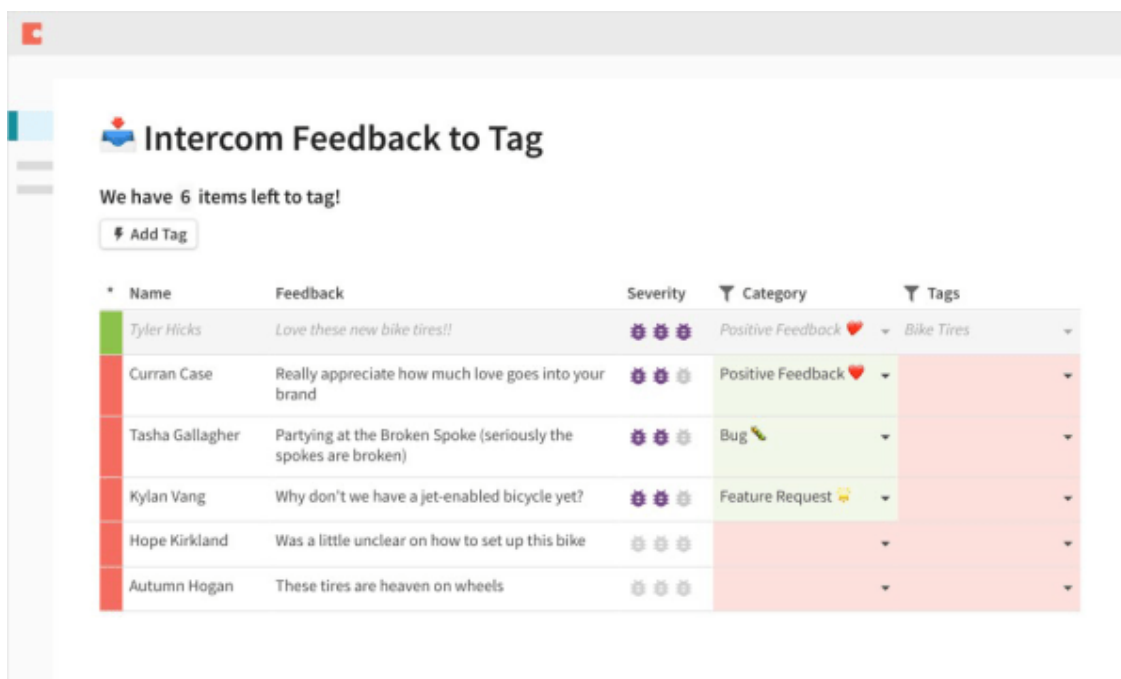
Still, Mehrotra says that he's confident that learning to make Coda creations is not overly intimidating. Each Thursday, Coda's team reviews video of interviews with users. “When you ask them, ‘How hard was it to build it?’ ‘Hard’ isn't quite the way they think about it, because for them it's kind of fun,” he says.

By talking to services such as Figma, GitHub, and Slack, Coda can leverage a company's other essential tools rather than competing with them. [Image: courtesy of Coda]

As Coda beta testers have explored the service's possibilities, he adds,

they've frequently asked questions about integrating it with other services: "I work in all these other tools. How do I make sense of when I should use Coda, when I should use the other tools, how do they work together?" Coda is responding to such queries with Packs, an ambitious new series of features that tie the service together with other web-based tools. For starters, there are more than 15 Packs, including ones for GitHub, Gmail, Google Natural Language, Greenhouse, Intercom, Slack, Twilio, and others, with more on the way.

Packs—which you add from an app store-like installer—dramatically expand Coda's power without requiring a user to know arcana such as API calls. A Pack can pull in information relating to stocks, weather, or products available from Walmart; grab Instagram images or YouTube videos; or push out emails, text messages, or calendar appointments. And because you can mix and match Pack capabilities with all of Coda's other features and apply logic to them, you can perform feats such as automatically scheduling a meeting if a project has failed to meet a milestone.



Name	Feedback	Severity	Category	Tags
Tyler Hicks	Love these new bike tires!!	3/3	Positive Feedback	Bike Tires
Curran Case	Really appreciate how much love goes into your brand	3/3	Positive Feedback	
Tasha Gallagher	Partying at the Broken Spoke (seriously the spokes are broken)	3/3	Bug	
Kylan Vang	Why don't we have a jet-enabled bicycle yet?	3/3	Feature Request	
Hope Kirkland	Was a little unclear on how to set up this bike	3/3		
Autumn Hogan	These tires are heaven on wheels	3/3		

Coda's Intercom Pack lets you wrangle customer feedback from an app. [Image: courtesy of Coda]

By connecting a company's workaday tools in new ways, Coda has the potential to become a sort of collaborative glue. "We all know that teams rely on a variety of different tools and services," says Matt Hodges, VP of

commercial product strategy at Intercom, whose Pack allows a doc to retrieve customer-feedback conversations and add new messages to them. "For a product team, that might be Coda, it might be GitHub, it might be Slack, it might be Intercom." With Packs, "Without any coding ability, you can stitch all those tools together and create the workflows that map to how your team operates."

In it for the long haul

Many startups wear their impatience as a badge of honor. Coda's history to date, however, has been strikingly unhurried. Mehrotra and DeNeui founded their startup in June 2014. They had a working prototype by December, began asking friends and family to test it in May 2015, and invited a larger group of testers to experiment with an alpha version a year later. The company [officially unveiled itself in October 2017](#) and launched a wider—though closed—beta program. At that time, it also disclosed that it had raised \$60 million in funding.

Coda's testers started employing the service to perform actual useful tasks at their companies early on. But the sheer enormity of what Coda is trying to do explains why it remains in private beta. The company is still rolling out core features such as Packs, as well as its approach to making Coda docs behave properly on mobile devices. (You need a desktop browser to create them, but on a smartphone, they automatically assume a card-style interface that, if anything, is more app-like than on a PC.)

In early 2019, if Mehrotra's current timetable holds up, Coda will reach general availability. Even then, the company won't charge for the service while it ponders its eventual business model. "For me, it's philosophical," he explains. A startup should "get the basics of the product right first, figure out which parts resonate, then segment your audience to figure out which features to make free versus pay."

Using the Twilio Pack, you can make sending a text from Coda as easy as pushing a button. [Image: courtesy of

Coda]

Venture capitalist and LinkedIn founder Reid Hoffman famously declared that “if you’re not embarrassed by the first version of your product, you’ve launched too late”—an argument in favor of speed to market. All evidence suggests that the first open-to-all-comers’ version of Coda won’t be embarrassing. It might even feel more like Coda 2.0 or 3.0 than 1.0. Should the company have shipped something more rudimentary more quickly?

At Coda’s Block Party user event, I posed that question to Hoffman, who led the company’s Series A funding as a partner at Greylock and now sits on its board. “Like any heuristic, my little maxim is not 100%,” he told me. It applied to his own LinkedIn in its earliest days, to Airbnb, to Zynga games such as *FarmVille*. But “when you’re developing a platform for people to develop on top of, you have to give them enough that they can build interesting things, which means you have to be relatively deep.” Speed still matters—but it’s the speed with which users can accomplish productive work with the tools you’ve created.

The fact that Coda has been chipping away at the challenge it set for itself since 2014 may sound slow going by startup standards. Then again, the necessary ingredients for success—approachability, plus depth—are one of software’s most sought-after, least-achieved qualities. Some products that have been around for decades still haven’t nailed it.

“We think that the blinking cursor is pretty critical,” says Mehrotra. “But if you pick up and use Coda, you should be able to use it for anything.”