



Dick Costolo

In the Moment

Dick Costolo
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Twitter



If there's a man of the moment, it's Twitter CEO Dick Costolo.

The first moment came in 1977, when his father brought home a Radio Shack TRS-80 computer with 16KB of RAM. "I learned to program simple things on it, like getting a little cube to fire a bullet, and making a pixel disappear where the bullet struck," says Dick. "I thought that was really cool, and it instantly got me hooked, so by the time I went to Michigan I knew I was going to study computer science."

Dick did study CS at Michigan, graduating with a degree in Computer and Communication Studies. At the time, CCS was offered through the College of LSA, so while in his senior year he took an acting class to fill a requirement. He loved it so much that he took another in the second semester and began performing as a stand-up comedian in the Michigan Union at the University Club. At graduation, he took "a big bet on myself," turning down three job offers from tech companies to plunge into the world of acting, performing with Chicago's Annoyance Theater and studying improv at Second City.

It was while studying in Chicago that Dick learned the critical importance of being "in the moment" to success at improv. He leveraged this lesson after returning to the tech world when he saw opportunity once "the Internet happened," making his move as an entrepreneur and blazing a trail through startups Burning Door Networked Media (web design and development), SpyOnIt (web page monitoring), and FeedBurner (web feed management provider). All of these ventures had successful exits, with Google paying more than \$100 million for FeedBurner.

Dick left Google to become COO, and in 2010 CEO, of Twitter, a company that is all about the moment.

"One of the challenges we have at Twitter," says Dick, "is that because it's so real-time, it's life in the moment, and that moment is this moment, not yesterday's moment. Social media sites are kind of yesterday's moment, and Twitter is this moment."

This demands that Twitter deliver tweets as they are generated all over the world, in real-time, which is a challenge that continues to expand in scope. Some of Twitter's users have tens of millions of followers, and Twitter broadcasts tens of thousands of tweets every second, all in a perfectly chronologically-ordered timeline.

Supporting this torrent of activity, according to Dick, calls for a completely different way of thinking about read-write stores, caching, and data delivery; an approach that is uniquely Twitter. "In one sense, what we have to do architecturally is so wildly different that it requires a rules-breaking way of thinking about it, and in another

Tweet-sized thoughts about Michigan:



"Irrespective of how you enter the University, you graduate from Michigan with a much broader perspective of the world."



"I always joke that it's a couple of Michigan engineers who correct my grammar and not the half of the company that are not engineers."



"I did assignments on the MTS time-share system, & we only had a limited budget of compute time for each project. We were always waiting for terminals."

Dick mentors aspiring entrepreneurs through U-M's Business Engagement Center and the Center for Entrepreneurship. He advises the early-stage investment firm LaunchBox Digital and serves as a mentor at TechStarts, which provides startups with seed funding and guidance from top venture capital firms and angel investors.

Fortune magazine listed him among its top 50 business people of the year in 2010. And in 2011, President Obama appointed him to the National Security Telecommunications Advisory Committee.

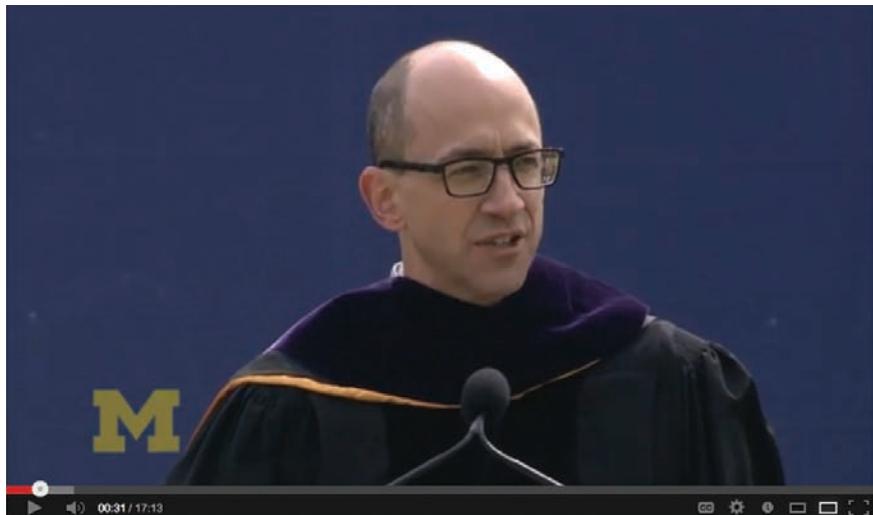
sense we're channeling that into building a coherent service-based architecture so that efforts inside the company can use these services instead of building a separate monolithic architecture."

As a startup, Twitter was originally constructed as just such a single monolithic architecture and built in Ruby on Rails. Having to convert Twitter to Scala and make it a truly service-based architecture while the company is running and growing so quickly has been and continues to be a huge challenge. To meet that challenge, over 50% of the Twitter is engineering, and a large number of those engineers develop back-end services. In addition, Twitter's architectural work now extends further – from software to hardware design, including rack design, power consumption, and data center design.

Back in this moment, Dick is always exploring new avenues for Twitter's technology. The company has expanded with Vine, a form of constrained video, just as Twitter is about constrained conversations. There are many tie-ins with other media. "We'll keep thinking about that notion of constrained publishing and as people innovate on things internally we'll produce those when we think they're good enough," says Dick.



Dick Costolo, 2013 Spring Commencement Address.



Dick Costolo gave the 2013 Spring Commencement Address at Michigan. Follow the QR code to see the video.



"When I was your age, we didn't have the Internet in our pants. We didn't even have the Internet not in our pants, that's how bad it was."



"Be bold, make courageous choices for yourself, and don't always worry about what your next line is supposed to be."



There's no script. Live your life. Be in this moment. Be in this moment. Be in this moment.