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## people



# How I invented email

Not many know that a 14-year-old Indian boy invented the email. But it's time to change that narrative, VA Shiva Ayyadurai tells **Amrita Madhukalya** while disclosing some of his ideas for the future

It was a small step for the University of Medicine and Dentistry of New Jersey (UMDNJ) but a giant leap for mankind that was to forever change the way the world communicated. VA Shiva Ayyadurai, only 14 years old in 1977, was hired to build an electronic inter-organisational mail system – and from there was born email as we know it today. Born in Mumbai in 1963, Shiva moved to the US at the age of seven.

It's the India connect that few Indians are aware of. Thirty-seven years on, Shiva says it's time to change all that. "Nobody knows that a 14-year-old Indian boy invented email. Maybe it's time we change the narrative," Shiva, in India to promote his book *The Email Revolution*, told **dna**.

As far as inventions go, none is as conflicted as Shiva's contribution to modern technology. There are many who claim that Ray Tomlinson is the inventor of email, or that the ARPANet system was the base for emails, and what Shiva did was just invent the interface. But, over the years, people like Noam Chomsky and Deepak Chopra have come forward in support of Shiva. He also graced the cover of *Time* magazine as the inventor of email in 2011.

Shiva, now 51 and looking a decade younger, lives in New York with his partner, actress Fran Drescher. "She's a wonderful person, and I brought my New York flat just so that I could live near her," he says.

Looking back, he remembers that it all began with his interest in medicine. "I always had a deep interest in medicine and, by the 9th grade, had studied all the math they taught till high school. I learned calculus, which was taught in college then and wanted to drop out of school. Then my mom introduced me to physicist Dr Leslie Michelson who worked at UMDNJ. I was excited at the thought of learning medicine, but was hired to work on email instead."

Shiva then went about the departments studying the mail system. Each secretary had a desk on which was an inbox for incoming mails, an outbox, a drafts folder, a trash bucket, an address book, paper clips for attachments, bond paper and a typewriter. He then wrote down 50,000 lines of coding in FORTRAN, the accepted coding language in the late 1970s, to create the user interface and the work processor of what was possibly the first email system. "FORTRAN allowed the use of only five upper-case characters for the name of a program. So I zeroed on 'email'," he says.

His invention landed him an award and the bachelors programme in the Massachusetts Institute of Technology (MIT), from where he holds four degrees. He was also a Fulbright Scholar, was



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nominated for the Lamelson-MIT student nominees and was student body president at MIT.

When he invented the program, the US did not have a law to protect his copyright. "The Copyright Law 1976 protected only music and literature," he recalls, adding that he bagged the copyright only in 1981 after the amendment in 1980.

Shiva's first stint at MIT was cut short because he bagged the first prize in a competition held by the White House to take care of its emails. " Bill Clinton realised the power of emails at observing people's opinions and categorised emails into 147 buckets: death threats, education, public policy, healthcare etc. All these emails were sorted manually to build a statistic on what people were thinking. Clinton would get a bar graph of the number of emails under a particular subject which served as a survey," says Shiva.

"They wanted me to come up with a program to analyse these emails and I developed EchoMail, which is widely used today for analysing emails for customer feedback by corporate houses"

Nike, Oprah Winfrey and Calvin Klein have been EchoMail's clients. "There have been many campaigns which have employed the analysis provided by Echo-Mail over the years to come up with advertising strategies," says Shiva. "Currently, we are working on a more affordable model of the program so that small business ventures can use it."

Shiva is excited about the possibilities of studying behaviour through emails and rues that the US Postal Department, on the verge of a shutdown, did not pay heed to his advice a decade ago to adapt to email. "I proposed that they offer an email service for a nominal fee, because it was evident that email was soon taking over. Also, no email service is free, so to speak. Ever organisation that offers you free email, ensures that they retain ownership over the emails," says Shiva.

When the announcement of its shutdown hit the headlines, an outraged Shiva tweeted that they should have listened to him. Publications took notice and he was soon contacted by the Postal Department. "I worked on a solution to turn around the finances and submitted my report, but I'm not sure if they have adapted to them," he says.

Shiva was instrumental in revolutionising communication. Maybe, he will play an equally significant role in determining the future of the US Postal Department.
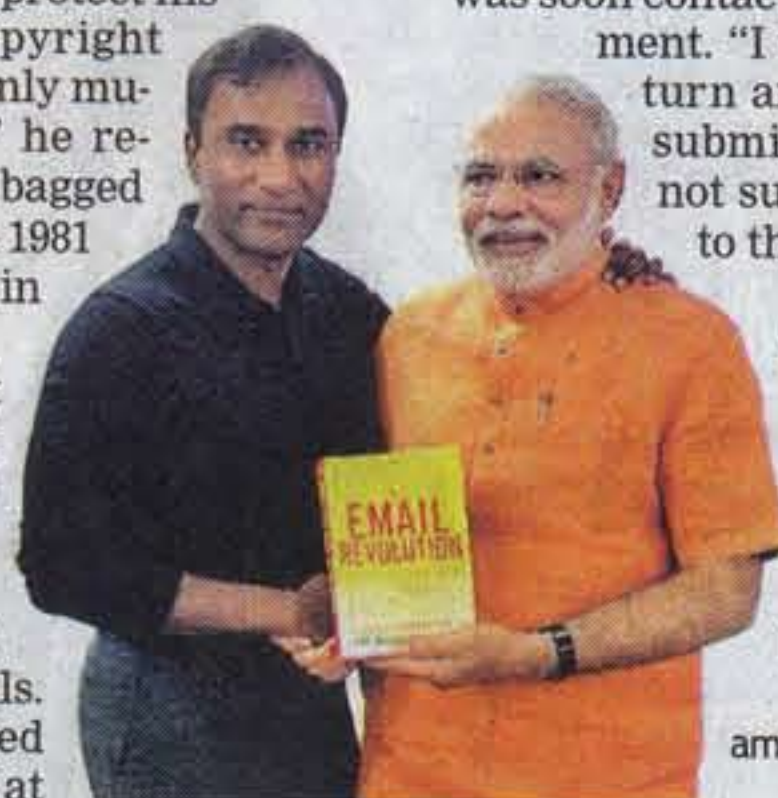


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## Some email commandments

**Email is not 'private'**
Any email you send is not privy to the recipient and sender, and a company owns any and all email transactions made on its server. Then there are hackers and thieves. Be particularly careful to avoid sending passwords or credit card numbers. If you use free email services, read their privacy policy.

**Email reflects you and your organisation**
Email is not text messaging. Sometimes being humorous is okay; however, in business communications, check spelling and grammar and follow proper etiquette.

**Email Has Permanence**
Each email you send is more than likely saved or archived on your computer system or on the recipient's system, potentially for posterity. In financial services organisations, all data must be saved for a minimum of seven years. Emails are subject to legal discovery and can be presented in a court of law. Think about what legacy you are leaving through them.

**Email can be confusing**
While email is great for quick communication, it can be confusing because the sender and receiver of such communications only see words, not gestures and emotions. Therefore, precision is central. Do not use capitalisation unless it is necessary. Avoid sarcasm, as it can be dangerous.

**Email is not free**
Email is not by any means free. It costs money for an organisation to handle an inbound customer email: spam or junk email costs money.