

THINK OUTSIDE THE MAILBOX

Way back in 1978 I got my first account on an online bulletin-board system. Using my 300-bits-per-second modem, I would log into a computer somewhere in Allentown, PA, and read and reply to messages people had left for me. If there were messages I thought were particularly important, I would save copies on my home computer in a file I called “oldmail.”

Nearly 25 years later, the fundamental e-mail paradigm hasn't changed much. Sure, networks and computers are a thousand times faster, and e-mail is now used not just by a few geeks like me but by hundreds of millions of people around the world. But those are only issues of scale. Deep down, e-mail is the same as when I started using it during the Carter administration. A message comes into my mailbox. I read it, and I either file it away or delete it. Although the computer helps, it's my job to be an efficient file clerk.

The problem is that most users don't have the training to be file clerks. Is it better to have one mailbox named “Professional” for all of the professional correspondence, or is it better to maintain a separate mailbox for each correspondent? Is it best to create new mailboxes every year, every decade, or never? I don't know the most efficient way to set up mailboxes so that messages I receive today can be quickly found five years from now. Do you?

None of this matters terribly much if you get five or 10 messages a day. But for those of us who get 100 or more, the sheer mechanics of being a file clerk can consume a significant amount of time—nearly an hour a day, in my case. And we are getting more e-mail messages all the time. That's because e-mail is more than just person-to-person communication: it is the best way to coordinate a group of people working on the same project.

To be fair, the last quarter century has brought one helpful development in e-mail technology: filters, or rules that automatically route messages to the appropriate mailboxes. Filters can be triggered by the From, To, and Cc lines of the e-mail header; a keyword in the Subject line; and even text in the message body itself. Although filters do a good job of splitting one inbox into many, the difficulty of setting up these rules deters most people from using them. Even worse, filters are fundamentally the wrong solution.

The real problem with e-mail today is in the mailbox and folder metaphors. Sure, they feel like apt models. Paper letters are delivered to physical mailboxes. We throw out the ones we don't like, and we file those we want to keep in folders or shoe boxes. But e-mail is different. A physical letter can be in only one place at a time. Why should we enshrine that limitation in our computerized systems?

I'd like to see e-mail systems equipped with just two buttons: Keep and Delete. Pressing either button would move a message out of the inbox. Press Keep and it would be filed in an intelligent database that would automatically characterize all the many different ways you might want to index it. Mailboxes would become keywords. If you wanted to see all the messages sent by coworkers about the Agamemnon project, say, all you'd need to do would be to ask for them—the database would automatically figure out who your coworkers were and which messages related to the project. Software would make such determinations on the basis of mailing patterns, subject lines, and word analysis.

The Delete button would not immediately trash the message. Rather, it would file it away in the same database and schedule the message for erasure after perhaps one week. This would make it possible for you to change your mind and recover a message you had deleted. How many times have you wished you had that power? Researchers are actively exploring some of these ideas.



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Earlier this year at the TR100 conference at MIT, Richard F. Rashid, senior vice president for research at Microsoft, demonstrated the Personal Map being developed in Microsoft's labs. Analyzing Rashid's stored e-mail, the Personal Map automatically identified the various projects in which he was involved and grouped his e-mail accordingly. The system even identified the e-mail Rashid had exchanged with his contractor regarding renovations to Rashid's house.

Anyone who wants this sort of technology today, though, would need to turn to the world of open-source software—specifically the Evolution e-mail program being developed by Ximian, a startup in Boston. Evolution automatically indexes all the e-mail it receives, making blindingly fast searches possible. It then lets the user organize messages into virtual folders, or “vFolders,” which automatically update themselves every time a new message arrives. For example, you could have one vFolder with all the mail from your mother and another with every message containing the word “aardvark.” If your mother sent you a message about her recent trip to southern Africa, that message might show up in both places. It's a good first step, but picking the right searches for these vFolders still needs too much thinking: the computer should do it automatically.

The dramatic success of Google, the popular Web search engine, has demonstrated that the key to solving information overload is a clean interface combined with killer search capabilities. It's time for the world of e-mail to catch up. ■