

Cyber Quiz 3: Check your e-mail

by Dr D. C. Misra



TechRepublic member, Dr. D.C. Misra, has created this quiz as part of a series. He is an Independent eGov and IT Consultant based in New Delhi, India. He moderates the Cyber Quiz group (<http://in.groups.yahoo.com/group/cyberquiz/>) and maintains a blog on Cyber Quizzes (<http://cyberquiz.blogspot.com/>).

About the quiz, Dr. Misra says:

Rightly described as the killer app of new technology, people took to e-mail like fish to water. Individuals now communicate across nations in a jiffy, and it's still free. No wonder billions of messages are exchanged over the Internet every day, making checking e-mail a daily habit. But is ours still a small or big world?

While reasonable care has been taken to compile the quiz, neither the author nor the publisher is responsible for the accuracy, inclusion, exclusion, or the interpretation of the contents. Readers are advised to consult authoritative sources before acting on the information contained here. The purpose of the quiz is educational and popularization of information and communication technologies.

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- (a) What is e-mail, who invented it, and when?
 - (b) If Gmail is e-mail introduced by search leader Google, how does it differ from the conventional e-mail, like Microsoft's Hotmail, for example?
 - (c) With which company is the decade-old project Re-mail or Reinventing E-mail associated?
2. Which are the top ten countries, in order of rank, in the use of e-mail and what are the rankings for India and China?
3. Which are the top five e-mail service providers?
4. In 2003, how many:
 - (a) Daily e-mails were sent?
 - (b) Daily e-mails sent per e-mail address?
 - (c) Daily e-mails sent per person?
 - (d) Daily e-mails sent per corporate user?
 - (e) Daily e-mails received per person?
 - (f) E-mail addresses per person existed?
 - (g) What was the cost to all e-mail users?
5.
 - (a) What is spam?
 - (b) The percentage of total internet e-mail identified as spam was 45 in March 2003. To what figure did it soar in February 2004?
 - (c) What is an e-mail harvester?
6.
 - (a) How much money annually is unwittingly paid by Internet users in receiving spam or junk e-mail?
 - (b) Americans received 38.6 billion unsolicited e-mail messages in 1999. To what figures was it expected to rise by the end of 2000 and 2003?
7.
 - (a) How many e-mails will be sent over the Web in just one year? (Hint: It's six times the traffic of snail mail.)
 - (b) How many e-mail addresses change annually?
8. What was the percentage of spam in the following categories in February 2004:
 - (a) Products
 - (b) Financial
 - (c) Adult (that is, for persons above 18 years of age)
 - (d) Scams
 - (e) Health
 - (f) Internet (that is, Internet service and computer-related)
 - (g) Leisure
 - (h) Fraud

- (i) Political
 - (j) Spiritual
 - (k) Other
9. (a) What is the number of registered Indian e-mail users in the following e-mail services:
- (i) Yahoo! Mail
 - (ii) Rediffmail
 - (iii) Hotmail
- (b) What is the number of e-mail users and free storage capacity allowed in:
- (i) Yahoo!
 - (iii) Microsoft
 - (iii) AOL
 - (iv) Gmail?
10. What percentage of Internet users say that:
- (a) They cannot do without e-mail.
 - (b) E-mail makes them more efficient.
 - (c) They waste an hour every day responding to or deleting irrelevant e-mail.
 - (d) Check their e-mail at least daily.
11. (a) The number of e-mail messages in the United States was 394.2 billion messages in 1999 as compared to postal mail packets of 201.6 billion. What were the corresponding figures for 2000?
- (b) How many e-mail boxes existed worldwide by end of 1999?
12. (a) "Internet Access Takes Flight," screams a news headline. Three separate projects are under way to bring e-mail and Internet access to commercial airline passengers. What are these projects?
- (b) When and where was the world premiere of airborne Internet held, allowing a passenger on board to have Internet connectivity and enable to him to send and receive e-mails?
13. (a) Who invented one of the icons of the wired world– the symbol “@”?
- (b) Who invented the smiley face “:-)”and when?
- (c) Which was the first commercial e-mail service?
- (d) On May 24, 2004 the character “@” was added to the Morse code. What was the special occasion?
- (e) What was the reason for not allowing a Chinese father to name his son “@”?
14. What are the following:
- (a) POP3.
 - (b) SMTP.
 - (c) IMAP.
 - (d) MIME, and (e)S / MIME?

15. (a) It is neither pure e-mail nor pure snail mail (traditional mail) but a mixture of two, so what is ePost in India?
(b) If it is a commercial software program, what then is EchoMail?
16. What are the following:
(a) ePatra.
(b) iLeap.
(c) Sendmail.
(d) Fetchmail.
(e) Passport.
(f) List server
(g) Blackberry
17. (a) A commercial service, this e-mail converts all the snail mail into e-mail. What is it called?
(b) What is shamail.
(c) How dangerous is e-mail from a virus point of view?
(d) What is Google by Mail?
18. Are two people with computer access really six e-mails away from each other? An online research project at Columbia University in New York has been launched to find an answer to the question of whether ours is really a small world or a big world. What is the name of the project?
19. (a) An e-mail is not, say the knowledgeable practitioners, an ordinary letter sent electronically. It is a means of communication in its own right. How should it then end?
(b) According to the *New York Times* columnist Thomas L. Friedman, Jodie Williams won the Nobel Peace Prize in 1997 for her contribution to the International Ban on Landmines. She achieved that ban not only without much government help, but in the face of opposition from the Big Five major powers. And what did she say was her secret weapon for organizing 1,000 different human rights and arms control groups on six continents?
20. (a) If it has been called the Google of e-mail, what is Bloomba?
(b) It has been called an irritating cousin of SPAM: What is SPIM?
(c) What is Thunderbird?
(d) Why does one need to be careful in writing and reading e-mails?

Answer Key to Cyber Quiz 3: Check your E-mail

1. (a) Electronic mail. The term is understood to mean exchange of mail or messages on computers, most notably, but not necessarily, through the Internet. The first electronic mail (e-mail) was sent between two machines in 1972 by a BBN engineer called Ray Tomlinson working in Bolt Beranek and Newman (BBN) company in Cambridge, Massachusetts.
(b) Gmail, whose beta version was announced on April 1, 2004, and is in operation since then, has (free) storage capacity of 1 GB (1 gigabyte or 1,000 megabytes) (500,000 pages) as opposed to Hotmail's (free) 1 MB (megabyte), now raised to 2 MB. Thus in Gmail messages are not required to be deleted (due to practically no limitation on storage), which is not the case with Hotmail. Likewise, messages are also not required to be filed in Gmail as a message once sent can always be retrieved. (For more information, see Google's site or Katie Hafner's article, "In Google We Trust? When the Subject Is E-Mail, May be Not," from The New York Times, Technology / Circuits, Thursday April 8, 2004.
(c) IBM Corp. (accessed October 23, 2004).
2. 1. Finland, 2. Denmark, 3. Australia, 4. United States, 5. Sweden, 6. Ireland, 7. Singapore, 8. Canada, 9. Austria, and 10. Mexico. India is ranked 35th and China 55th in a ranking of 59 countries with Vietnam ranked last.
3. 1. Hotmail.com (110 million, as of October 2002)
2. Yahoo.com (101 million, as of early 2003)
3. Netease.com (53 million, unspecified date)
4. Sina.com (20 million, unspecified date) and Rediffmail.com (20 million, as of July 8, 2003)
5. Libero.it (10 million, as of April 2002)
(Source: [E-mail Service Providers by Size](#), accessed October 20, 2004).
4. (a) 31 billion.
(b) 56.
(c) 174.
(d) 34.
(e) 10.
(f) 3.1 average.
(g) \$255 million. (Source: Spam Filter Review, [Spam Statistics 2004](#), accessed: October 18, 2004).
5. (a) It is unsolicited e-mail messages sent to individuals, usually by companies promoting their wares or organizations espousing their causes. A survey conducted by Gartner Group in 1999 found that 91 percent of e-mail users receive spam at least once a week, and most of them favor either regulating spam or banning it altogether. (Source: Andrew Buchanan).
(b) 62, according to Brightmail [Ed. Note: Now owned by Symantec], an anti-spam leader (Source: <http://www.brightmail.com/spamstats.html>, March 12, 2004)

(c) A computer program that scans Web sites and databases for addresses and gathers them for spammers. For example, Target 2001, made by Microsys Technologies, Inc. of Findlay, Ohio. (Source: Stacy Forester, The Wall Street Journal / The Indian Express, February 11, 2002).

6. (a) 10 billion euros (\$ 9.4 billion). The figure was arrived at by a study done for the European Commission (EC) covering Europe and the US as a part of its ongoing efforts to ensure that the development of the Internet and e-commerce does not undermine Europe's rules on Internet privacy and data protection.

(b) By end- 2000: 53.6 billion; By 2003: 75.6 billion. Ten per cent of all e-mail is spam.

7. (a) According to one estimate, over 600 billion. (Source: The Statesman, New Delhi, September 29, 2000).

(b) One-third of all e-mail addresses change annually, as estimated by market research firm NFO World Group (<http://www.nfow.com>).

8. (a) 24.

(b) 18.

(c) 14.

(d) 11.

(e) 7.

(f) 6.

(g) 6.

(h) 4.

(i) 2.

(j) 1

(k) 7

(Source: <http://www.brightmail.co/spamstats.htm>, March 12, 2004).

9. (a)(i) 8.2

(ii) 4.08

(iii) 2.3 (Figures in million as in February 2001)

(Note: Hotmail has 110 million customers.) It costs Microsoft \$1 per year to maintain each mailbox. Ad revenues only cover 20 per cent of cost. It costs less than a penny for Hotmail to send an e-mail while it costs 5 to 6 cents for smaller e-mail service providers. (Source: Olga Kharif and Rutledge, Susann: "Clash of the Free E-Mail Titans," March 1, 2002

http://www.businessweek.com/technology/content/mar2002/tc2002031_7723.htm)

(b) (i) 40 million (4MB)

(ii) 34.4 million (2MB)

(iii) 32 million (20MB)

(iv) Service yet to be formally launched, currently in beta version. (Figures in parentheses indicate free storage capacity provided) (Source: Hafner, Katie: "In Google We Trust? When the Subject Is E-Mail, May be Not," The New York Times, Technology / Circuits, Thursday, April 8, 2004;

<http://www.nytimes.com/2004/04/08/technology/circuits/08goog.html>). Since then the free storage limit in Yahoo! Mail has been raised to 100 MB

10. (a) 70
(b) 60, according to the E-Mail Marketing Report 2000 by US - based eMarketer.
(c) 94 (Source: eMarketer 2000)
(d) 93, including 43 per cent who check it more than once a day and 36 per cent who check it more than five times a day. The survey was done online. It is therefore skewed towards heavy Internet users (Source: Spam Recycling Center E-mail User Survey 2000, Dataquest, December 15, 2000).
11. (a) E-mail – 536.3 billion messages; Postal mail – 206.4 billion packets (Source: eMarketer 2000)
(b) About 570 million, almost six times the number in 1995. Out of these the Americans had 334 million.
12. (a) 1. In Flight Networks, the Globalstar Satellite Network, and Qualcomm Inc. partnership. It will operate at 200 kbps and will be deployed in late 2001; 2. Air Canada will offer it in some of 767 aircrafts; and 3. Boeing Co. will offer high-speed connections in partnership with CNN, Mitsubishi Electric, and Loral Skynet (Source: Cheryl Rosen, informationweek.com)
(b) On May 17, 2004 on board the Lufthansa Flight No. LH 452, flying from Munich, Germany to Los Angeles, California. Passengers on this flight were first in the world to experience real-time, WiFi-based, high-speed internet connectivity on a commercial flight route. (Source: News Releases dated May 11, 2004, http://www.boeing.com/news/releases/2004/q2/nr_040511j.html, and dated May 17, 2004, http://www.boeing.com/news/releases/2004/q2/nr_040517j.html, accessed October 20, 2004).
13. (a) Ray Tomlinson in 1972. When this inventor of e-mail wanted to separate sender identification (ID) from the machine.id on which he had the mail box, he examined the keyboard and rejected the alphabet as the letters could not separate the two identities. He then examined and rejected the punctuation marks as clumsy. Ultimately he selected symbol @—meaning "at"—which met his requirement.
(b) Scott Fahlman, an IBM researcher working on artificial intelligence (AI), on September 19, 1982 when he typed “ :-)” in an online message. In the 80s, users of a Carnegie Mellon University bulletin board proposed a variety of markers for humorous comments like *,%, &, (#) and \----/. Fahlman suggested :-) along with the admonition to read it sideways. The practice spread as Internet users found the symbol useful as a rough approximation of a twinkle in the eye. (Source: The Indian Express, New Delhi, September 20, 2002 / Andy Sullivan, Washington, September 19, 2002, Reuters)
(c) OnTyme in 1976. It, however, found a limited market as the number of computer owners was very small at that time. Commercial e-mail service began among 25 U.S. cities in 1982
(d) The 160th anniversary of the first telegraphic transmission on May 24, 1844. The International Telecommunication Union (ITU), in Geneva voted in December 2003 to include the character “@” in the Morse code. Morse code is used by amateur radio operators for exchanging e-mails. The character “@” has a longer code (17 beats) than the word “at” (11 beats). However code for “at” sounds like letter “w.” (See What Will They Think of Next: Radio?, February 21, 2004, <http://peterthink.blogs.com/thinking/2004/02/>

(accessed October 24, 2004) and Glassman, Mark (2004): @ Issue: Long Code for a Small Symbol, New York Times, April 15, available: <http://tinyurl.com/6brqc>, accessed: October 24, 2004)

(e) The request was refused as the Chinese law requires the name to be translated into Mandarin and “@” could not be translated into Mandarin.

14. (a) Post Office Protocol 3, a protocol used to download the e-mail to the computer. It can be used with or without SMTP.

(b) Simple Mail Transfer Protocol, a protocol used for sending e-mail between the servers

(c) Internet Message Access Protocol, a protocol used by an e-mail client to access e-mail on a shared mail server.

(d) Multipurpose Internet Mail Extensions, a protocol used for supporting graphics, audio, and video in e-mail

(e) Secure MIME, a protocol used for supporting encryption for secure e-mail.

15. (a) It is a scheme introduced in August 2001 by the Indian Postal Service for connecting remote villages without Internet connectivity. A joint venture of India Post and Netlinx Ltd., under the scheme, a subscriber is given a generic e-mail id based on the postal index number (PIN) code of the delivery post office. The domain name is [Indianpostoffice.net](http://www.indiapostoffice.net). Mails for this address are downloaded at the nearest epost office, printed, enveloped, and then delivered by the dedicated postal staff. The tariff is Rs 10 per A4 size paper. A prospective user of the service has to get registered online at the Web site <http://www.indiapost.org/> or any of 200 ePost centres in the country on payment of minimum Rs 250. ePost, in partnership with Ecomenable, has accepted a 128-bit secure socket layer (SSL) Web server certificate for safe and secure transfer of mail. (Source: Himanshu Singhal, Hindustan Times, February 6, 2002)

(b) It is a commercial software program that handles a large volume of inbound and outbound e-mail by automatically receiving, processing, responding, storing and tracking all correspondence. The program was developed by EchoMail, Inc., Cambridge, Massachusetts; founded by V.A.Shiva, 37, its CEO. Shiva sometimes calls himself Dr E –Mail. [EchoMail](#) has 125 employees including 30 developers. For details visit the Web site. It competes with larger firms (such as Siebel Systems, Inc. of San Mateo, California and Kana Software, Inc. of Palo Alto, California) that make software for customer relationship management (CRM) and have an e-mail component. (Source: William M Bulkeley, The Wall Street Journal, November 28, 2001).

16. (a) The first multiple Indian language e-mail service (Epatra.com) developed by Webduniya.com.

(b) ‘The intelligent, Internet ready, Indian language word processor on Windows’ developed by [C-DAC](#), Pune in collaboration with Mithi.com Pvt. Ltd. It can be downloaded from the Web site .

(c) The most widely used mail transport program in Unix environment written by Eric Allman. For freeware version of Sendmail™ , visit the Web site of [Sendmail Consortium](#).

(d) ‘A one-stop solution to the remote mail retrieval problem for Unix machines. It is open source software

licensed under GNU General Public License. It was developed by Eric S. Raymond, the compiler of Jargon File. For details, visit the [GNU Web site](#).

(e) Microsoft's free e-mail service. It has 160 million subscribers, and (f) A mailing list that is administered automatically, and (g) It is an e-mail device, which also serves as an organizer, address book, and a two-way pager. Manufactured by Research in Motion, a Canadian company, its latest model priced at \$ 499 is powered by an Intel 386 processor and has 5-MB memory (Source: Financial Times).

17. (a) PaperlessPOBox. All the snail mail (traditional paper mail) of a recipient is received from a PO Box, scanned, and converted to e-mail and then sent to the recipient's e-mail account the same day. The snail mail is archived for three months. Founded by David Nale in San Francisco, California in 1999, the [PaperlessPOBox](#) service was started in 2001. For details, visit the Web site.

(b) Camera-embedded phones. It allows users to take snap shots with their mobile phones and send them to other users via e-mail. The service was introduced in Japan on March 1, 2002 by J-Phone, Japan's fast growing mobile phone group (Source: Michiyo Nakemoto, Tokyo, March 1, 2002, Financial Times, London / Business Standard, March 2, 2002).

(c) It is estimated that 93 per cent of all viruses are transmitted through e-mail (Source: Goh Chee Hoh, The Times of India, April 24, 2002) and (d) Not to be confused with Google Mail or Gmail, it is a unique e-mail service by search engine Google. [Cape Clear](#) has created an "asynchronous Google service." Send an e-mail with your search terms to google@capeclear.com and Google-mail will send you top ten results. It can be helpful in low bandwidth situation. (Source: <http://capescience.capeclear.com/>).

18. Small World Research Project led by Columbia sociologist Duncan Watts. We live in a "small world" with "six degrees of separation," so found Stanley Miligram, a Harvard social psychologist in 1967. The phrase "six degrees of freedom" was coined by him. It means that two people in the world are separated by six intermediaries. An article in Nature in 1998 (393: 440-442) by D.J. Watts and S.H. Strogatz attempted to explain the phenomenon in terms of "random connectors" in a "network." The research project questions the findings of Miligram and the commonly-held belief that "it is a small world, after all" by trying to find whether indeed it is a Big World or Small World. For details, visit the [Web site](#). For an interesting history (October 2, 2000) of the "small world problem" which also questions Miligram's conclusion, read Professor Judith Kleinfeld, University of Alaska, Fairbanks's paper "Could It Be a Big World After All" at the Web site <http://smallworld.sociology.columbia.edu/history.html>. (See also Hindustan Times, New Delhi, February 7, 2002 / Guardian News Service).

19. (a) The perfect e-mail, says Steve Morris, the author of Perfect@E-Mail, should end: "kind regards" or "best wishes". Lucy Kellaway, writing in Financial Times, London, however, says: "The best ending for these messages is no signoff at all. A brief, simple message followed by the name of the sender. Quick, functional and characterless. Just like the medium." One would like to agree with her, and (b) E-mail. (Source: Friedman, T.L. (2000): The Lexus and the Olive Tree, New York, Farrar, Straus and Giroux, <http://www.lexusandolivetree.com/>).

20. (a) A search engine for e-mails typically accumulated over years, which even searches inside attachments, developed by Stata Labs, Inc., San Mateo, CA, founded by Raymie Stata (a professor of web archeology) and Ray Stata in late 2001. (Bloomba is a phonetic spelling of "blumba," meaning historically a metal tag to identify authentic, fresh and 'kosher' meat, and thus identify real from fake e-mail. For details, visit the [Web site](#).

(b) Spam through instant messaging (IM) systems, that is, unsolicited commercial instant messaging. Spim is set to triple in 2004, according to Radicati Group, Palo Alto, CA, a technology market research firm. The company projects that 1.2 billion spims will be sent, a mere trickle compared to 35 billion spams expected, but the researchers warn that spim is growing at about three times the rate of spam. (Source: The Times of India, New Delhi, April 1, 2004, Thursday, p-14 and <http://www.newscientist.com/news/news.jsp?id=ns99994822>, March 26, 2004).

(c) It is an open source e-mail client developed by Mozilla, an open source software project supported by the Mozilla Foundation established in 2003. (Source: <http://www.mozilla.org/products/thunderbird>, accessed October 18, 2004) and (d) Communication between humans is approximately 90% body language, 8% tone of voice, and 2% what you say. With e-mail, you remove the first 98%, states E-mail Etiquette. As such one has to be careful in writing, reading and interpreting e-mails. (Source: E-mail Etiquette, http://www.e-mailaddresses.com/guide_etiquette.htm, accessed: October 20, 2004).

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