



So, will filters kill spam?

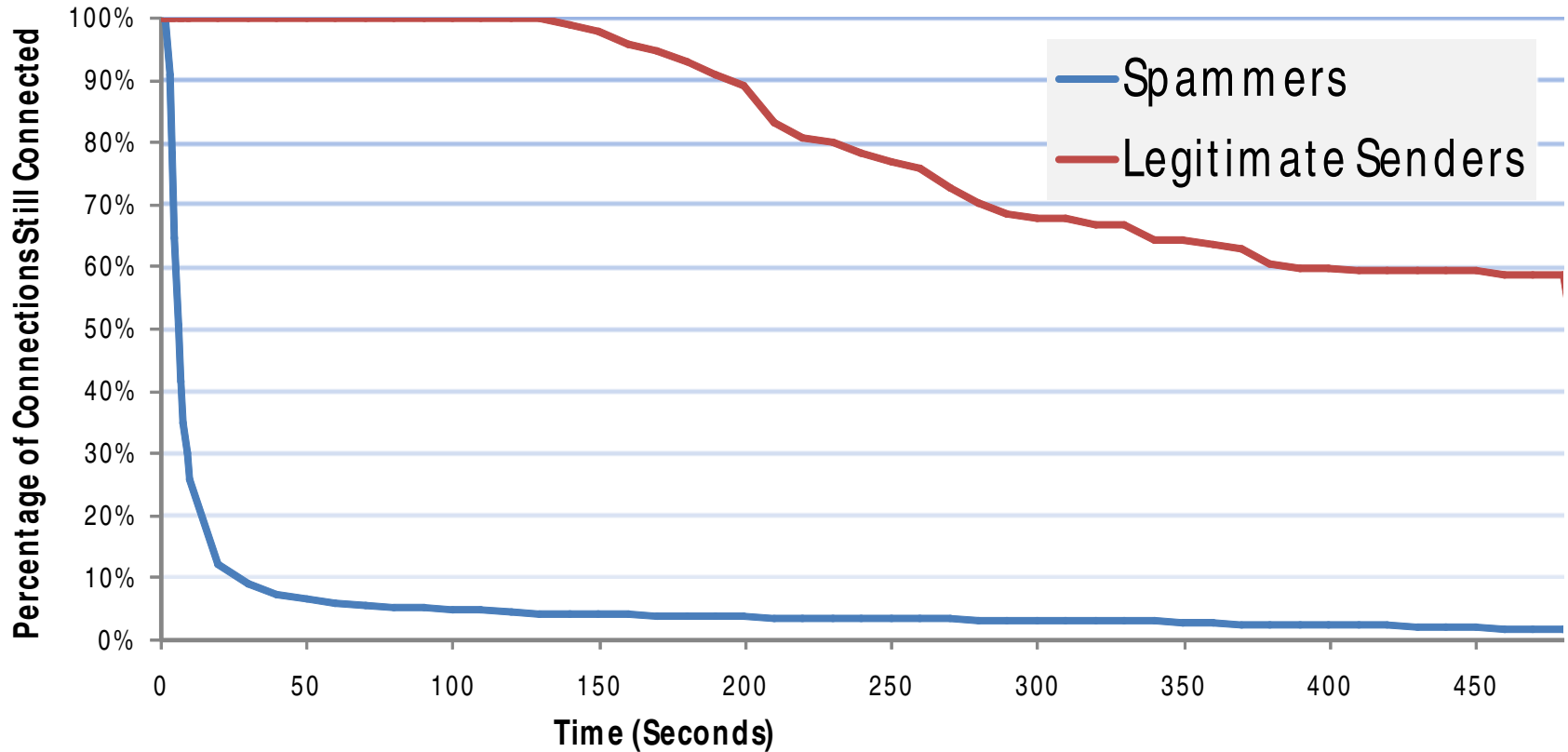
John Graham-Cumming

For the EU Spam Symposium, May 2007

About me

- Independent consultant based in France
- Creator of POPFile
- Recently...
 - » ... technical advisor to MailChannels
 - » ... implementation of Signal Spam
- www.jgc.org

Spammers are Less Patient than Legitimate Senders



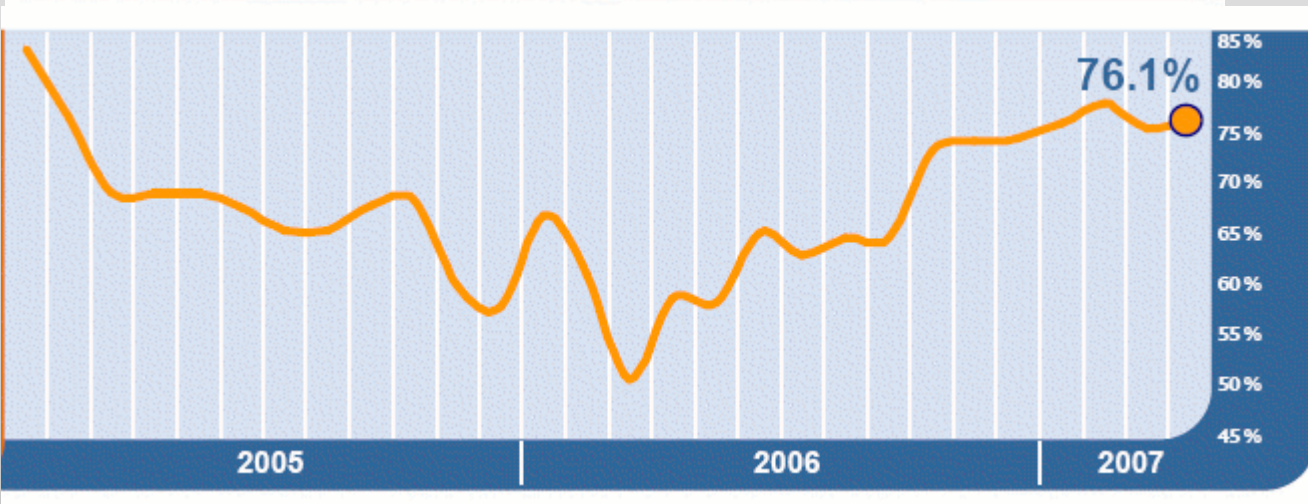
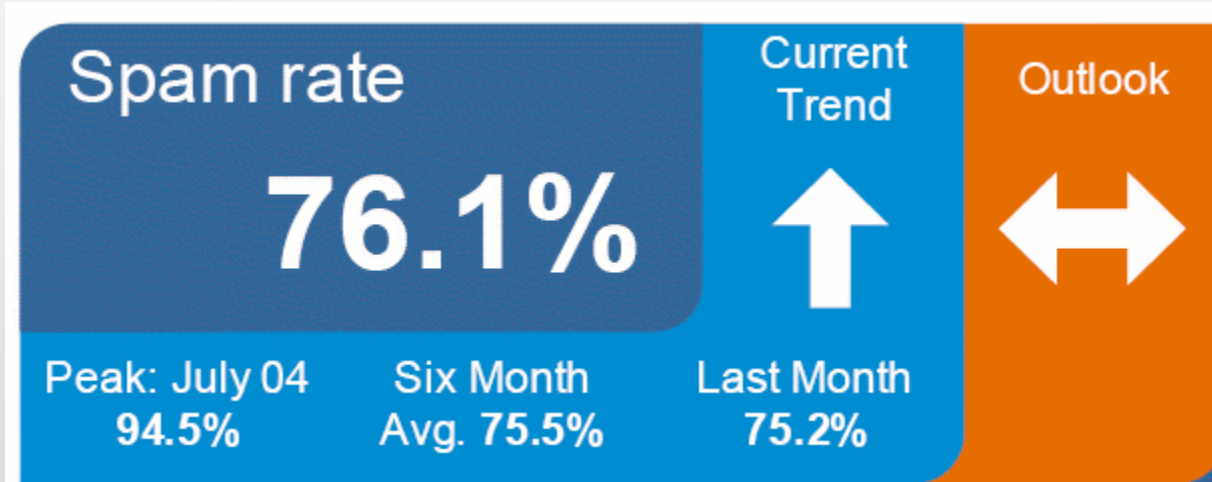
Paul Graham

- “... if they can decrease spammers' response rates enough, spam will no longer pay, and the spammers will actually stop sending it.”
- December 2002
- From the article “Will filters kill spam?”

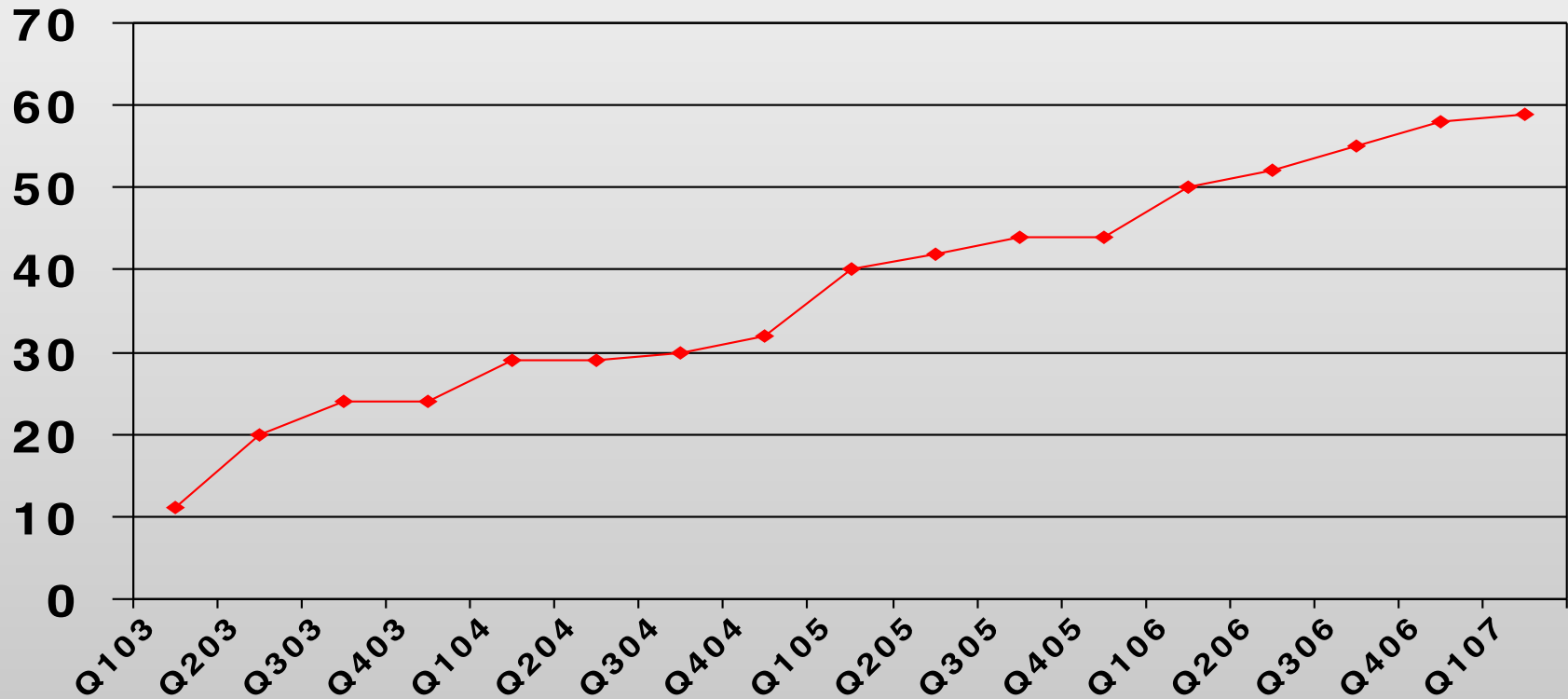
Bill Gates

- “Two years from now, spam will be solved”
- January 2004

MessageLabs - April 2007



Spammers constantly innovate

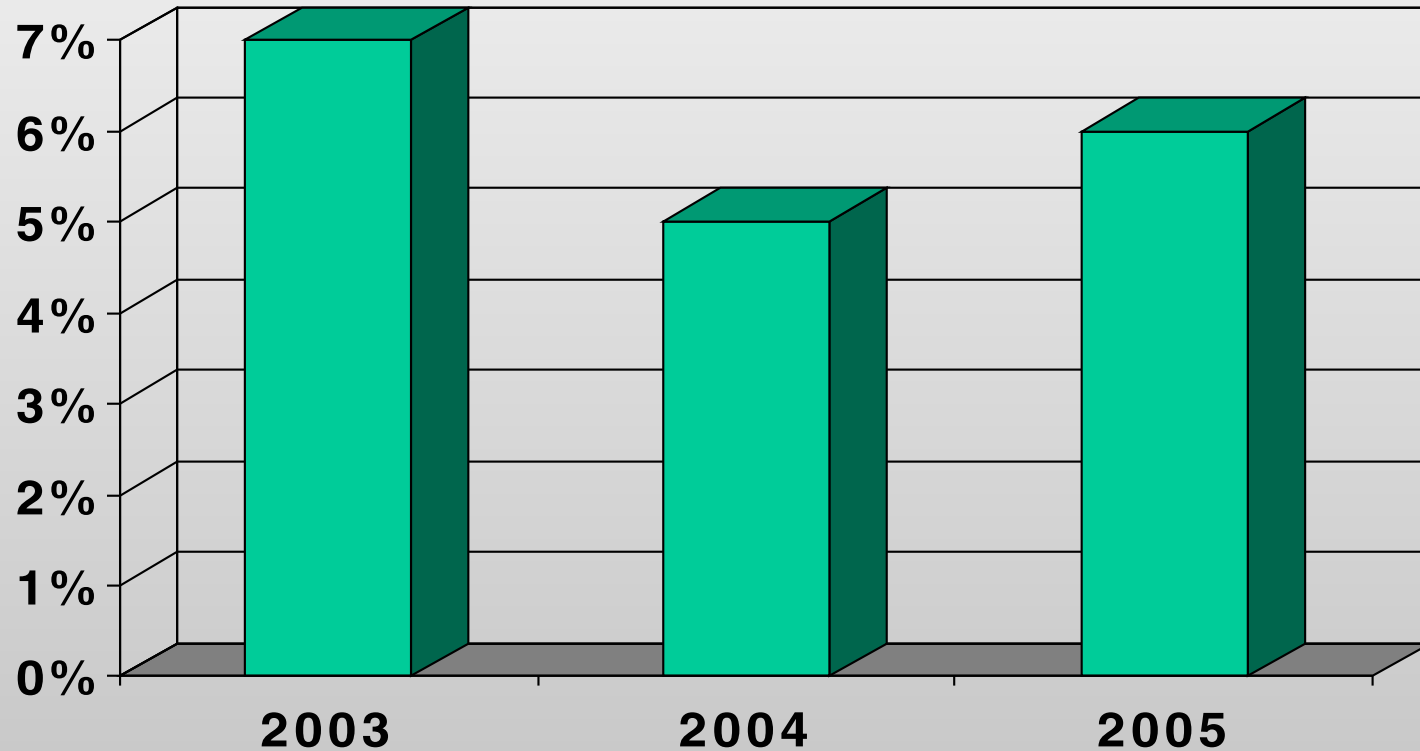


The Spammers' Compendium: www.jgc.org/tsc

Innovation Vectors

- Spammers test against spam filters
- They actively test against the major webmail services
- They learn from spam conferences

People buy from spam



Data from Pew Internet and American Life Project

Response Rates

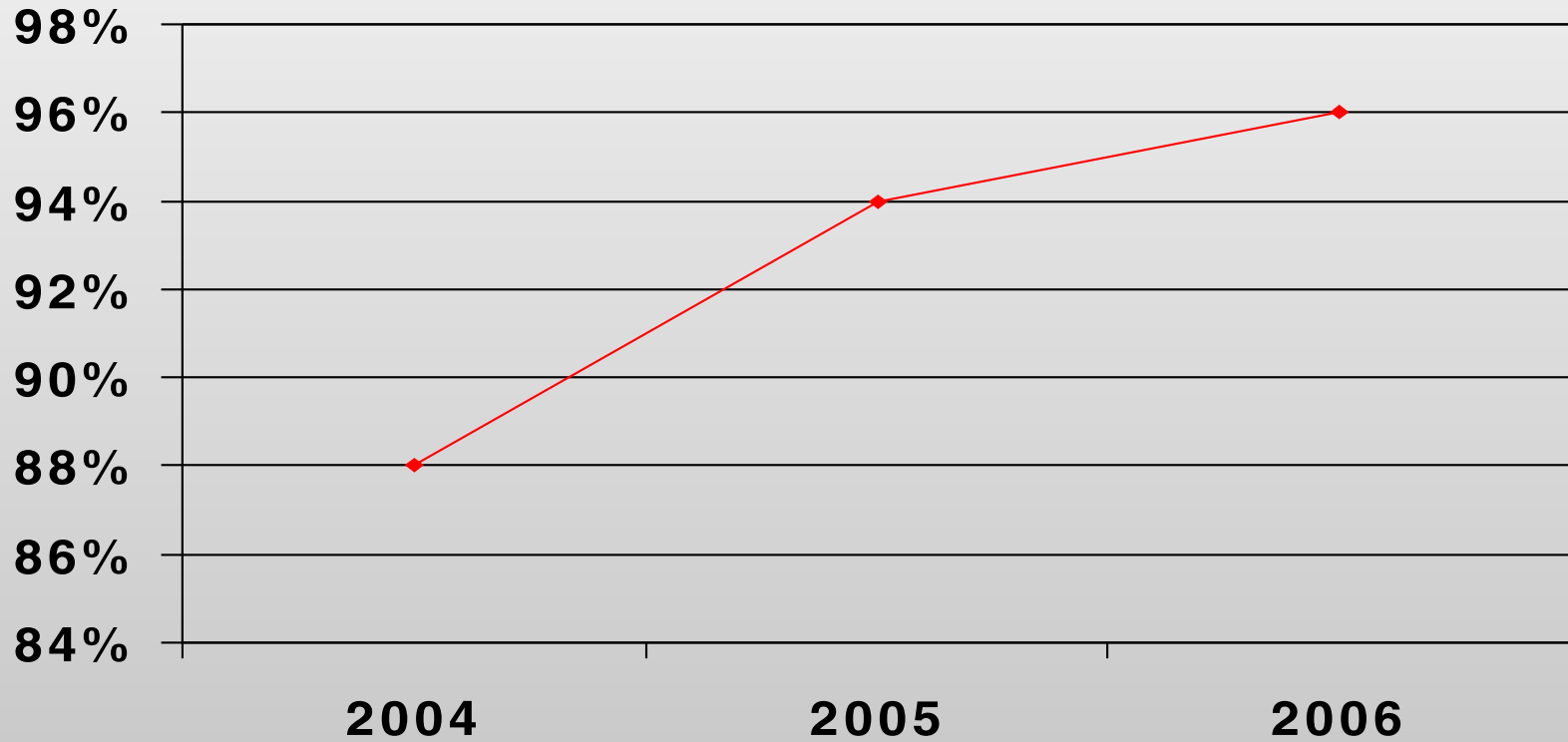
- Spammers claim a response rate of 0.001% to 0.01% is break even
- If 5% of people currently respond to spam filters need to improve by 5,000 to 50,000 times accuracy

People release spam from quarantine

- What if the 5% read spam when it's quarantined?
- Anecdotal evidence says they do:
 - » Click through data indicating the referer as a Bulk Email folder
 - » My own experience
- Is there a spammer in the audience who'd share their access logs with me so that this can be measured?



How good are filters?



Anti-spam Tool League Table: www.jgc.org/astlt
Year-on-year improvement average 5%

How widespread are filters?

- Ferris Research estimates that:

“90% of inboxes in the developed world are protected by spam filters with an estimated average 90% filtering effectiveness”

Effective Filtering Rate

- So the average filter gets 96% accuracy
- And 90% of inboxes are filtered
- Therefore, the effective filtering rate is 80-85%
- Overall, filters make spammers job **5x** harder

Suppose everyone had filters

- Imagine 100% of inboxes have filters at 96% accuracy
- Now filters make spammers jobs **25x** harder
- (or 5x harder than today)

Suppose filters were much more accurate

- Imagine 90% of mailboxes protected by filters with 99% accuracy
- Effective filtering rate is 90% making spammers jobs **10x** harder
- Or twice as hard as today

Imagine everyone had good filters

- Imagine 100% of people have 99% accurate filters
- Effective filtering rate is 99% making spammers jobs **100x** harder
- Or 20x harder than today
- How difficult is it for a spammer to send 5-20x today's volume?

Recent trends

- Postini reports that spam volume was
 - » up 135% between September 2006 and April 2007
 - » up 36% since January 2007



Sending 5-20x more spam

- Send smaller messages
- Get access to larger botnets
- Get access to faster connections



Send smaller messages

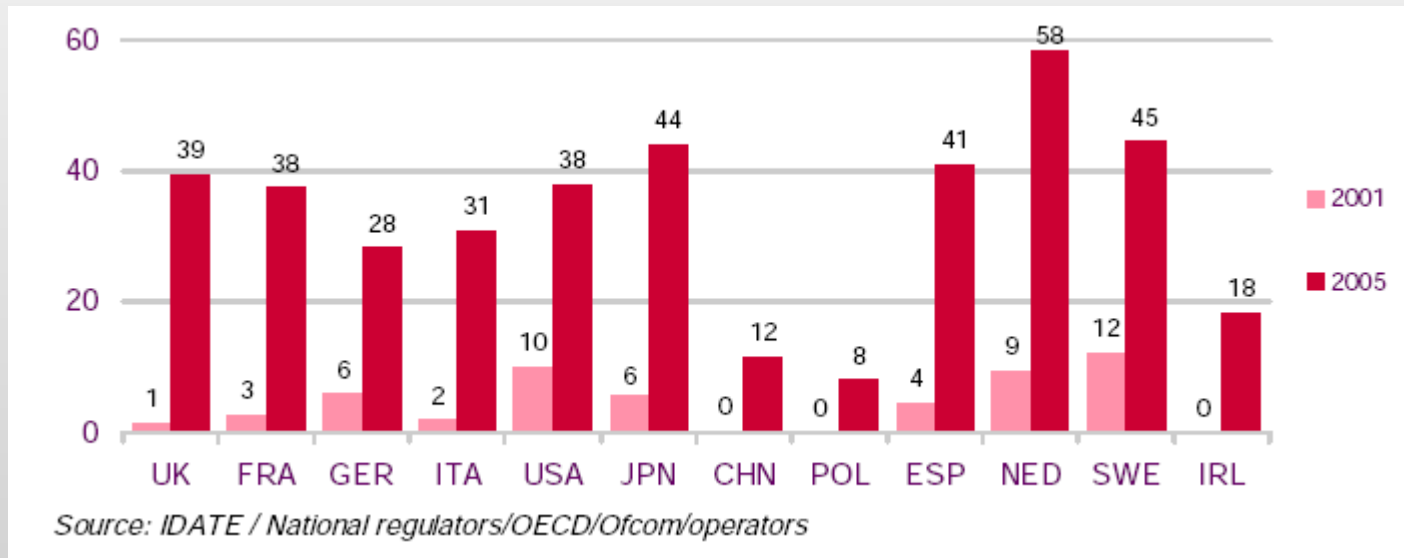
- For example, take an image spam with an attached image
 - » Average size is 8k
- Replace image with link to image on hosting site or hacked server
 - » Message is now 2k
- Easily get **4x** out of existing servers

Botnets

- 85% of spam sent from botnets
- Rent out at micro-pennies per day
- Credible reports of 250,000 to 500,000 new zombie IPs per day



Broadband Penetration



Source: OFCOM
Point Topic reports 31% year-on-year growth in 2006

Broadband speeds rapidly increasing

- From 2Mbps to 20Mbps to 100Mbps
- 10-50x speedup

Spammers need only wait

- Spam filter accuracy improving at 5%
- Broadband penetration growing in double-digits
- Broadband speeds at least doubling
- Existing botnet sizes adequate to maintain current spam delivery rates

Axes of spam fighting

- Botnets
 - » Single greatest threat to the Internet
- Filters
 - » Increasing filter penetration is vital
- Laws
 - » Prosecutions
- Education
 - » Must teach people of the fraud related to spam



jgc's spam and anti-spam newsletter

- Twice monthly newsletter
- Sign up at www.jgc.org



Thanks

- MailChannels
- Cristina Bueti, the “SpamLinks” web master, Chris Nivard, Richi Jennings