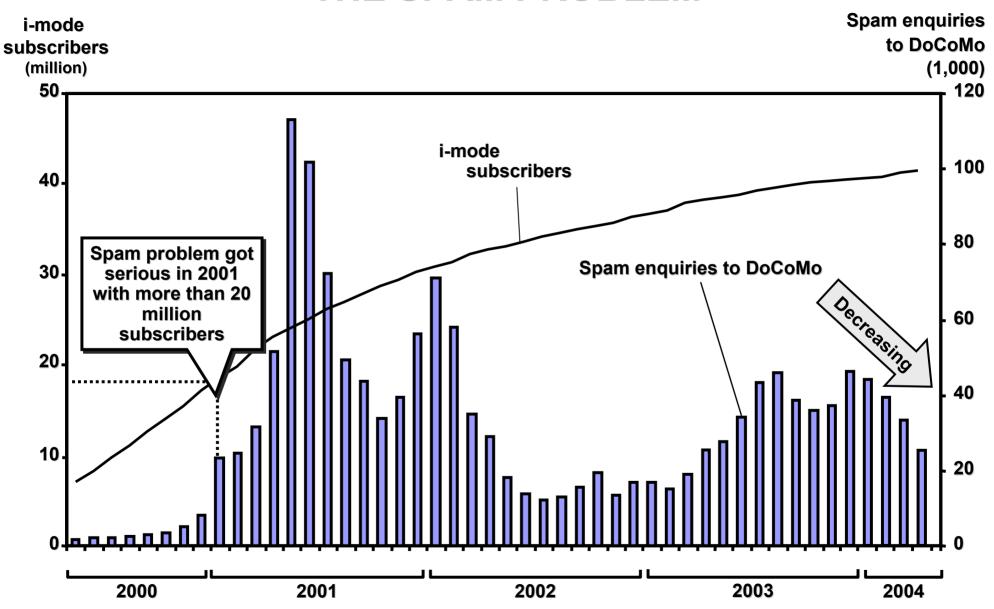


Current Trends in Mobile-Phone Spam and Counteractions by NTT DoCoMo

NTT DoCoMo, Inc. Shinichiro Takahashi July 7, 2004

THE SPAM PROBLEM



Source: NTT DoCoMo, Inc.

i-mode SPAM

Two major types of spam to i-mode subscribers are:

Advertising dubious dating sites

Demanding payment for fictitious invoices



Title: Looking for a date? From: smile@xxx.xxx

Visit our site if you're looking for a handsome boy or a pretty girl. http://www.xxx.xxx
No charge for girls, 50 free points for boys!

Title: Final Notice From: Billing Dept.

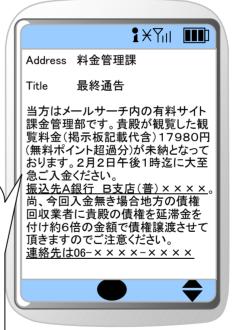
You have not paid the amount of xxx yen for the site usage fee. Make sure to transfer money to the following bank account by 1:00 p.m., Feb. 2, 2004.

XXX Bank No.00000

If you refuse to make the payment, you will be charged six times as the amount mentioned in this notice.

ontact us at: 06-xxxx-xxxx

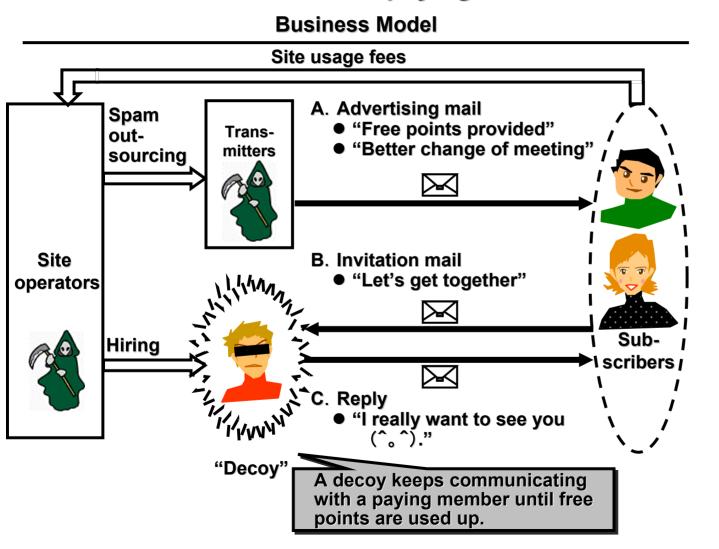
- Invitation to access site
- URL to malicious site provided



- Intimidating language
- Bank account details and/or telephone number provided

DUBIOUS DATING SITE BUSINESS MODEL/ PROFIT STRUCTURE

Site operators make huge profits by using "decoys" to deceive subscribers to become paying members.

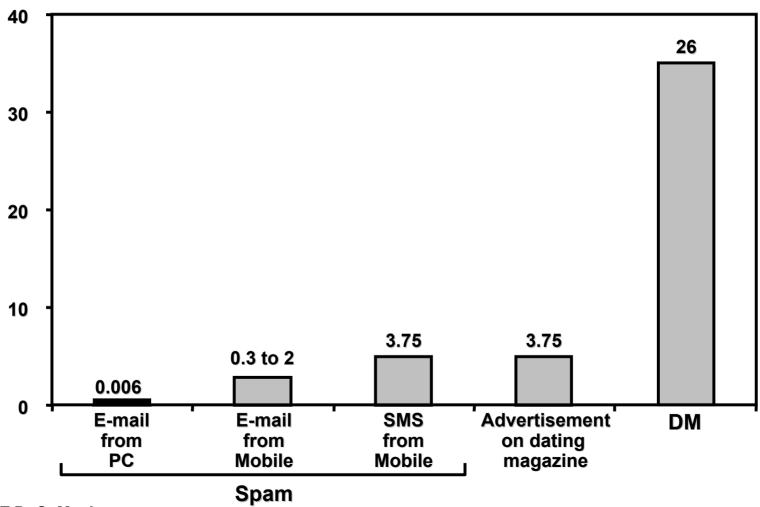


Profit Structure

- Operational cost of 10K EURO generates profits of 50K EURO
- Most operators run some dozens of similar sites

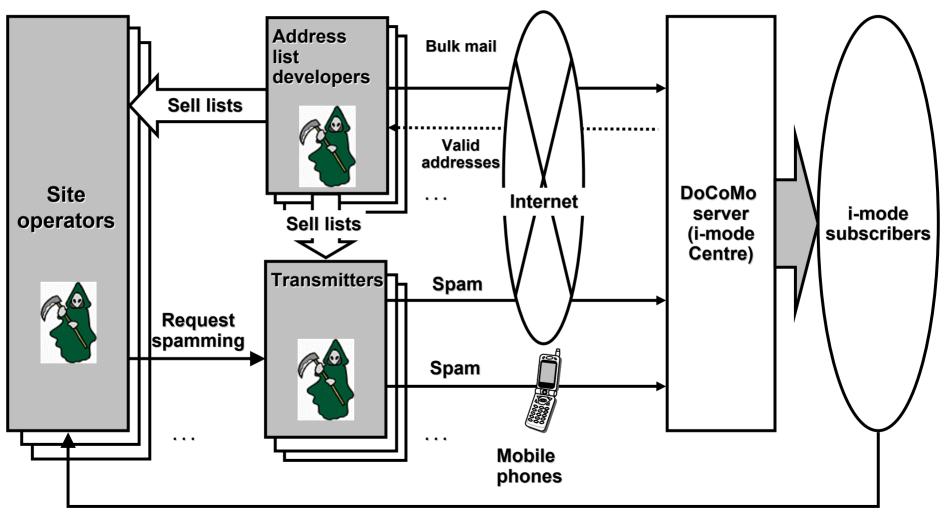
SPAM IS THE MOST COST-EFFECTIVE ADVERTISEMENT





Source: NTT DoCoMo, Inc.

INDUSTRY STRUCTURE



Access to sites

COUNTERMEASURES AGAINST ADDRESS LIST DEVELOPERS

DoCoMo constantly develops measures against progressive technology of address list developers.

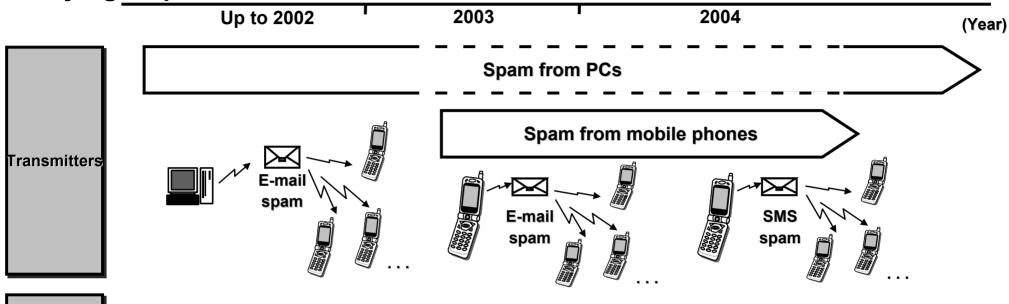
2001 2002 2003 2004 (Year) Collected address info Resumed bulk mail **Bulk mail via Internet** from Web sites, etc. **Address** Generated Developed Collected addresses from Web Developed software generating List I software for telephone sites, etc., automatically and long, complicated addresses. **Developers** number I generating short manually. addresses with addresses. Improved transmission capacity. MS Excel. (Transmission engine capable of 2 million mail-outs per hour) Enhanced blocking capability to eradicate Blocked bulk mail to invalid bulk mail to invalid addresses (Nov. 2001) addresses (since Dec. 2003) Claimed for damage compensation of **DoCoMo** approximately 50K € (Jun. 2002) Encouraged users to change from telephone Alerted users of the risk of listing their addresses number to alphanumeric address (Apr. 2001) on Web sites, catalogs and etc. Provided default address using 20 characters (Jul. 2001)

Filed the first lawsuit in Japan to seek suspension

of mail transmission (Oct. 2001)

COUNTERMEASURES AGAINST TRANSMITTERS

DoCoMo continues to take effective actions against transmitters who are trying all possible means.



- **DoCoMo**
- Provided filtering by specifying domains (Jan. 2002)
- Provided rejection/receipt features by specifying addresses (Nov. 2000)
- Introduced selective receipt feature for 3G (May 2001)

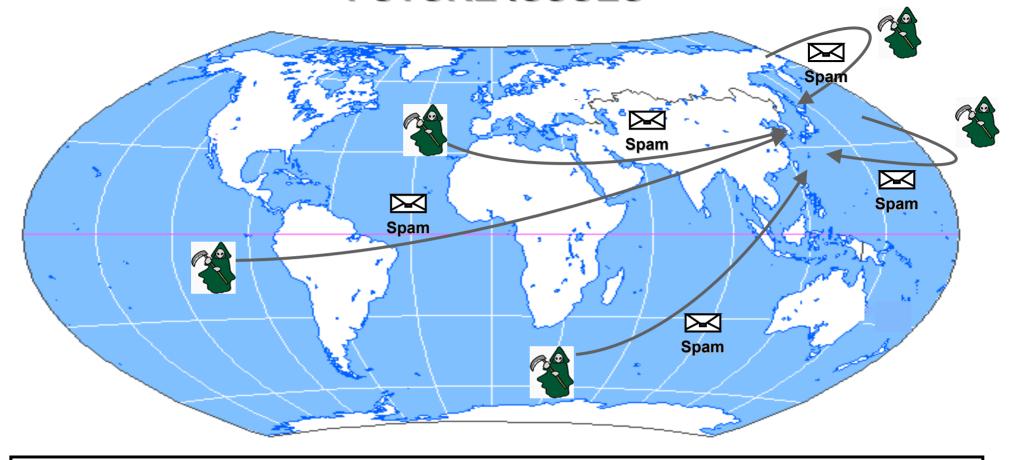
- Deactivated mobiles phones used for e-mail spam (since Jul. 2003)
- Set the limit of transmission to 1,000 messages per day/phone (Oct. 2003)
- Provided rejection of mobilegenerated bulk mail exceeding the limit of 200 messages (Jan. 2004)
- Provided filtering by specifying carriers other than DoCoMo (Dec. 2003)
- Offered selective receipt feature for 2G (May 2003)

- Deactivated mobile phones used for SMS spam (since May 2004)
- Increased the number of specifiable domains for filtering (May 2004)

PROMOTING SPAM PREVENTIVE PROGRAMS FOR i-mode USERS

- Advertising filtering/rejection features
- ✓ Provide preventive information on DoCoMo's home page.
- ✓ Describe preventive features on product pamphlets and catalogs.
- ✓ Prepare anti-spam pamphlets focusing on preventive measures to be delivered at mobile phone shops.
- Support activities for anti-spam promotion
- ✓ Give "mobile phones lessons" to show how to use preventive features (at approximately 1,300 DoCoMo shops).
- ✓ Offer support activities, such as setting for rejection, at mobile phone shops.
- ✓ Send DMs to users who have not used preventive features.
- Reducing users' costs
- ✓ Introduced free packet services (since Aug. 2001).
 - No packet charge for setting rejection and changing address
 - No packet charge for receiving 100 messages per month (applicable to 2G)

FUTURE ISSUES



International cooperation is essential for self regulations and legal actions against spam.

- ISPs' greater effort to suspend transmitters' lines
- Continued pursuit of legal remedies (e.g. the claim for damage made by DoCoMo)
- Establish effective legal frameworks