Global S.P.A.M. Diaries

(SPAMMED PERSISTENTLY ALL MONTH)

McAfee

FOREWORD

Welcome to the Global Spam Diaries, the result of the McAfee S.P.A.M. Experiment. In the only experiment of its kind, we set out to highlight the true dangers of spam. Arming 50 brave volunteers from around the world with new laptops and email addresses, we invited them to surf the web unprotected for 30 days to discover how much spam they would attract and what the effects would be, both short lived and long term.

By running the S.P.A.M. Experiment, we gave everyday people permission to go where most Internet users would not dare. For anyone that has ever wanted to "click" and find out if an offer really is "too good to be true," the McAfee S.P.A.M. Experiment satisfies that curiosity, without any of the risks. On a more serious note, the experiment also educates people and helps them to identify spam emails and highlight the risks associated with opening or responding to unsolicited email.

Spam has been present in our inboxes for as long as most of us can remember. It recently had its 30th birthday and we are concerned that because people are familiar with it, they perceive it to simply be a nuisance and don't realize the true danger it can hold. Spam is a tool used by cybercriminals to target both individuals and businesses. Whether the objective is to steal data, money or infect a network or computer, we know it's a constantly evolving threat that people must be aware of.

Whether it's to satisfy curiosity or learn more about spam, or both, we hope you enjoy the results and, like Libby one of our participants in France expressed below, we hope you'll never be tempted to click on those emails again:

"What have I gained during these last 30 days? Well, at least I got rid of this itch, this curiosity, clicking on any and everything on the World Wide Web just to see the outcome. Clearly clicking on a flashing window, or signing up for diet advice in the form of a newsletter as anticipated is foolish. I will continue to be more diligent paying much more attention to where I enter my personal email address, as well as my contact information."

Jeff Green
Senior Vice President
McAfee Avert Labs

SPAM : UNSOLICITED ELECTRONIC EMAIL

The Results!!

In the same way that Morgan Spurlock documented the drastic effects of living on fast-food for 30 days in the movie 'Super Size Me', our 50 intrepid participants from around the world opened up their inboxes to the perils of spam for the same period of time for the McAfee S.P.A.M. Experiment. Having blogged and recorded their experiences at www.mcafee.com/ spamexperiment, the question now on everyone's lips is: How much did they get spammed and how drastic were the effects?

Spam Count

It was with much trepidation that the S.P.A.M. Experiment participants embarked on their journey; visiting unknown web sites and being as careless as they could with their email address – going against all the "cyber rules" they have ever been taught. But it wasn't long before the participants were enjoying the opportunity to freely engage with spammers on everything from the great news that they had won the lottery or inherited vast amounts of money from a long lost relative in Nigeria, to readings with personal astrologers and "guaranteed" ways to lose weight.

> "The hardest thing is to resist the reflexes required over many years of intensive surfing practice. I'm no longer in the habit of giving out my email address to just anyone and it has been a while since I have planned on winning anything in a draw on the ;'becomeveryrichquick' site." – Mattieu, France

> "Up until now, I had never interacted with this type of email and, with some courage and curiosity, I clicked on the link shown! Immediately, several windows opened up, all from banks or pages that offered surprise gifts."
> – Sjoerd, The Netherlands

> "Wow, no fewer than 157 juicy spam messages in under 24 hours!"
> – Kiki, The Netherlands

With very few exceptions, the S.P.A.M. Experiment participants started to attract spam very quickly, many of them commenting on the speed at which spammers acquire new email addresses to target. The spam increased at a phenomenal rate just in the first week:

Daily increase of spam across all 50 participants (week one):
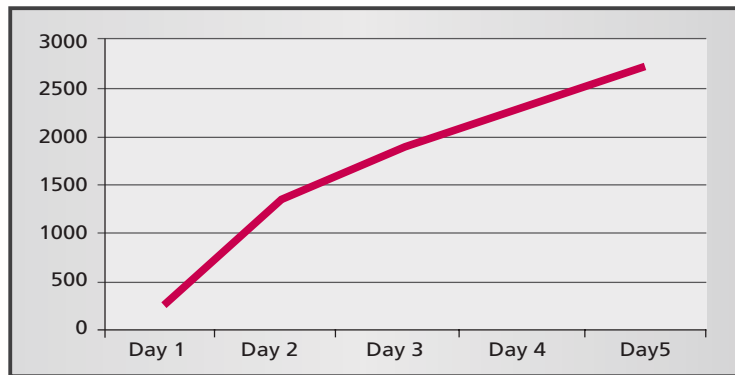
It didn't take long before the participants started to tire of the spam. The total 'spam count' was closed at 104,832. On average McAfee's 50 participants received 2,096 messages each throughout the course of the experiment, resulting in approximately 70 messages a day.
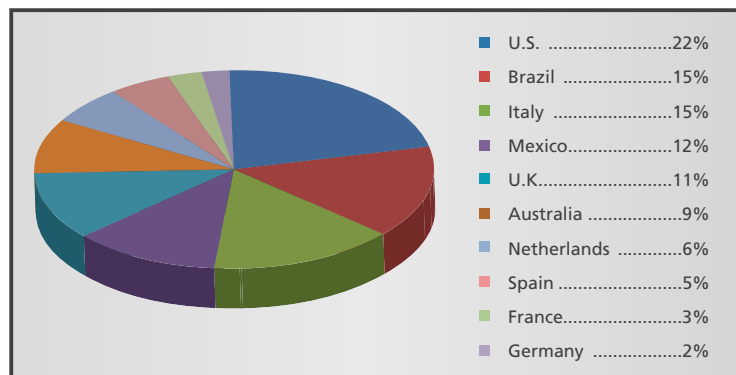
> *"During the first week I receive a total of 1,252 messages, during the second week, 3,670. Shocking! Now I will be more careful when browsing web sites."*
> – Jorge, Spain
>
> *"Enough! Stop offering me things I don't need. I am fed up with used cars or borrowing at the exceptional rate of 40% over 20 years."* – Steven, France

OUR GLOBAL SPAM LEAGUE

Five people in each of the 10 countries around the world took part and the U.S. topped our global spam league by attracting 23,233 spam messages, almost a quarter (22%) of the total spam received; Germany received the least attracting only 2331 messages, just 2% of the spam received.

Global Spam League Rankings	
U.S.	23233
Brazil	15856
Italy	15610
Mexico	12229
U.K.	11965
Australia	9214
The Netherlands	6378
Spain	5419
France	2597
Germany	2331

- U.S. 22%
- Brazil 15%
- Italy 15%
- Mexico....................12%
- U.K..........................11%
- Australia 9%
- Netherlands 6%
- Spain 5%
- France......................3%
- Germany 2%

Naturally, some participants received more spam than others. Bill, a retired account from the U.S., topped the individual spam league with 9,618 messages. Italy's Giuseppe, a mechanical engineer, came second receiving 6,490 messages. Brazil's Geraldo, a PC helpdesk worker, finished third, receiving 6,000 messages.

Top 10 Most Spam Individual Rankings

Bill (U.S.)	9160
Giuseppe (Italy)	6490
Geraldo (Brazil)	6000
Simon (U.K.)	5414
Rodrigo (Mexico)	5221
Gabriella (Italy)	5019
Evan (U.S.)	4224
Jose (Spain)	4034
Katya (U.S.)	3897
John (Australia)	3759

In addition to the official "spam count," the experts at McAfee Avert Labs also counted an additional 23,985 messages as "grey mail." By definition, spam is unsolicited email, so when our participants signed up for a newsletter and opened the floodgates to multiple newsletters, for example, the resulting emails cannot strictly be counted as spam. This grey area blurs the lines between what is and isn't spam. This figure brings the total number of emails received to 128,817, or 2,576 emails each and 86 emails a day.

A PAIN OR PERILOUS?

When the concept of the S.P.A.M. Experiment was born, McAfee was eager to show that spam isn't just an annoyance; it is also dangerous and often used by cybercriminals to make money and exploit unsuspecting victims.

On analysis of the spam received, the experts at McAfee Avert Labs uncovered that two of the European participants, Stefanie from Germany and Guiseppe from Italy, received spammed malware in their inboxes that went completely unnoticed. The viruses were detected as 'Exploit-MIME gen c'.
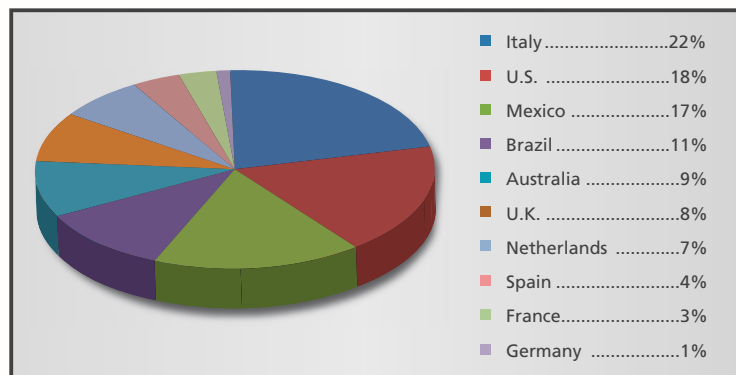
On April 24, Stefanie received a mail with the subject "failure message" that was sent by a botnet in Japan. If Stefanie had clicked on the attachment, her machine would have been added to the botnet by the virus and Stefanie's machine would have them been used to send spam viruses, so Stefanie would have unsuspectingly become a spammer herself.

Four days later, Guiseppe received an email, again from a machine in Japan, but a different one than the one that sent to Stefanie, with no subject line and supposedly from "Microsoft Message Delivery Service." This message contained the same malware file as the one Stefanie received.

These examples highlight the fact that behaving carelessly with your email address can not only attract spam, but also malware.

In addition to malware, McAfee Avert Labs classified 0.1% of the spam to be phishing emails – emails that masquerade as a trustworthy, known source to criminally and fraudulently acquire sensitive information such as usernames, passwords and bank account details. Italy received the highest percentage of phishing emails, followed by Mexico, the U.S., and then Brazil. The most popular phishing email across the globe was supposedly from Chase.com.

Percentage of Phishing Emails per country:

Country	Percentage
Italy	22%
U.S.	18%
Mexico	17%
Brazil	11%
Australia	9%
U.K.	8%
Netherlands	7%
Spain	4%
France	3%
Germany	1%

"I didn't realize how easy it was to contract a virus and how dangerous some of these sites are! I think my computer may have been damaged by the spam, as it keeps warning about fatal errors!" – Sue, Australia

"Again today, my PC slowed down… slowed down. Twenty-some spam messages and I was told my PC had spyware. What are these things?" – Christophe, France

These statistics, although they may not seem high, are consistent with other research on spam. Because the volume of spam is so high, the volume of phishing emails and malware seem low in comparison, but the fact that our participants received two infected attachments in such a short space of time (with new email addresses) highlights the very real link between spam and cybercrime.

> *"Many of our participants noticed that their computers were slowing down, this means that while they were surfing, unbeknownst to them, Web sites were installing malware. The fact that in just 30 days they commented on a noticeable change in the power of their computers proves just how much malware is being installed without innocent people's knowledge."*
> – Guy Roberts, director of Avert Labs, EMEA

> *"It's possible there is a link between the high levels of phishing emails in Brazil and the high level of financial cybercrime in Brazil. Because Brazil started online banking ahead of other nationalities it attracted more cybercriminals in this area and this is likely to have led to the higher levels of phishing emails received in our experiment."* – Jeff Green, McAfee Avert Labs

> *"Viruses and malware often harvest email addresses by checking local files on the infected PC's hard disc for email addresses to forward and spread the malware. As these addresses were new, and therefore would not be in anyone's address book, there is much less chance that they would receive malware than older, well-used, email addresses."* – Guy Roberts, director of operations at McAfee Avert Labs

THE WINNER IN THE SPAM CATEGORIES

Spammers use many different ways to capture people's attention: from "get rich quick" schemes to more controversial adult themes. Perhaps, unsurprisingly in the current economic climate, the most popular spam emails were on the subject of finance (for example offers of personal loans):

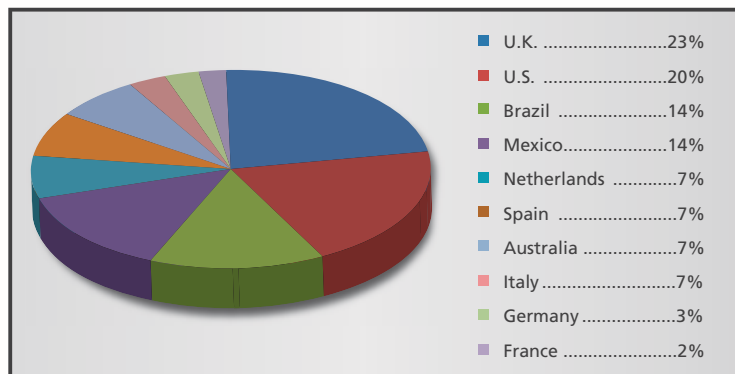| Top Ten Most Popular Spam Categories |
| --- |
| 1. Financial |
| 2. Advertisements |
| 3. Health and medicine |
| 4. Adult |
| 5. Free stuff |
| 6. Credit cards |
| 7. Education |
| 8. Money making, "get rich quick" schemes |
| 9. IT related |
| 10. Nigerian scams |

Type of spam by category:
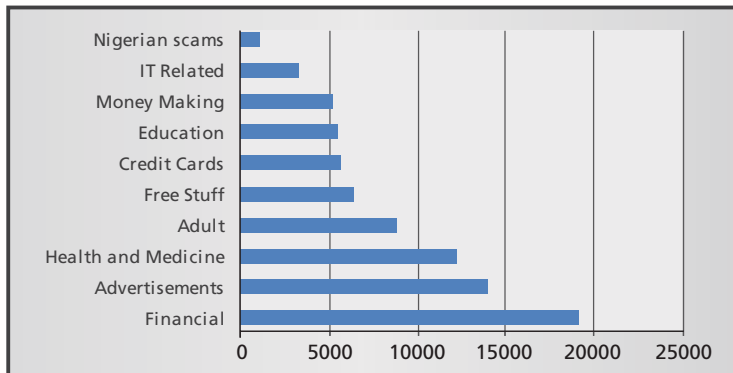
The now infamous "Nigerian Scam" spam was experienced by every country, but it was the U.K. that received the most spam of this nature attracting almost a quarter (23%) of the total of this type of spam. The U.K. was followed by the U.S. with 20%, and Brazil and Mexico with 14%. It seems the scammers in Nigeria think the U.K. to be the most lucrative audience.

"Nigerian Scam" Spam League	
U.K.	228
U.S.	197
Brazil	142
Mexico	133
The Netherlands	74
Spain	71
Australia	71
Italy	32
Germany	32
France	22

Percentage of "Nigerian Scam" spam by country

- U.K. 23%
- U.S. 20%
- Brazil 14%
- Mexico....................14%
- Netherlands 7%
- Spain 7%
- Australia 7%
- Italy 7%
- Germany 3%
- France 2%

"'Barrister' Charles Moore from Nigeria sent me images of some very authentic looking documentation proving me as the beneficiary of $1,200,000…authentic as it appears, the will was signed in 1999. I wasn't anywhere near Australia then and didn't have my fake identity. Alas I'm beginning to despair that Mr. Moore will have to enjoy the loot on his own." – John, Australia

Adult related spam is also popular. Participants in the U.S. attracted significantly more (27%) "adult content" spam than any other country, with participants in France attracting the least with just 3%.

Percentage of "Adult Content" spam by country:

U.S. 27%	
U.K. 18%	
Brazil 14%	
Mexico....................12%	
Netherlands 8%	
Spain 6%	
Australia 6%	
Germany 3%	
Italy 3%	
France 3%	
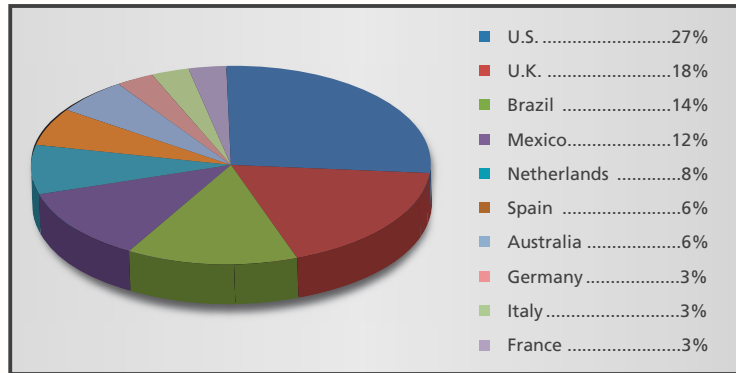
Adult Content Spam League	
U.S.	27%
U.K.	18%
Brazil	14%
Mexico	12%
The Netherlands	8%
Spain	6%
Germany	3%
Australia	6%
Italy	3%
France	3%

These popular types of junk email show how spammers are using psychology or "mind games" to attract people's attention. In the current climate, offers of cash and pre-agreed loans can seem like an attractive option for someone who is already in debt and doesn't want the embarrassment of being quizzed by their bank. Products relating to "health and medicine" will often be deemed attractive so people don't feel embarrassed to purchase face-to-face. These products could be anything from Viagra through to weight loss solutions. Spam that offers "free stuff" is the ultimate mind game – spammers know that we all find it hard to turn away these offers, as noted in the blogs of many of our participants.

SPAM FOR ALL?

With spammers getting more adept at writing spam in local languages, it's getting harder for people to recognize emails as spam. The results of the experiment show that although English is still the most commonly used language for spam, some of the non-English speaking participants received a fairly high level of localized spam which McAfee Avert Labs warns is on the increase. Germany and France had the highest percentage of local language spam, with 14% and 11% of their spam in German and French, respectively.

Percentage of spam in English vs. local language by country:
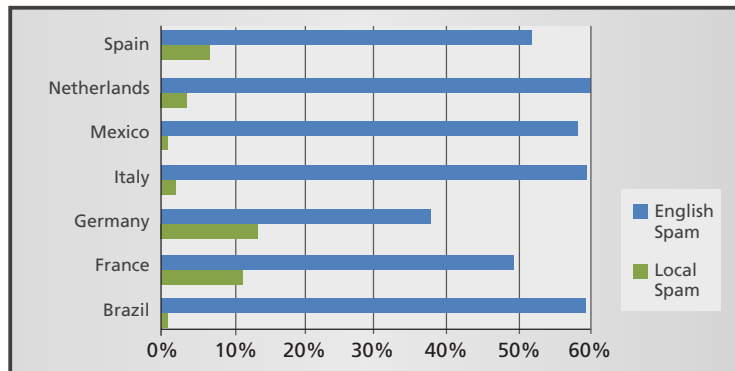
"French language spam messages are always less numerous than on English language sites…" – Christophe, France

"Started to notice lots of the spam I am receiving is for American residents only. When I try to reply to offers, they inform me that due to my residency, they cannot complete my request. Great, not only am I receiving loads of pointless emails but I also can't do anything for them because I'm not American!" – Danni, U.K.

"Repeated redirection to a common site makes me wonder if all this is managed by a single godfather? A Spam King?" – Vic, U.K.

Nick Kelly, anti-spam analyst at McAfee Avert Labs commented:

"We see spam becoming more localized in the future as spammers try to avoid detection. The difficulty is some country's strict spam laws mean that spammers have to operate from abroad in countries that are more lenient. Spam will definitely become more targeted in the future."

"Traditionally, spam has been created for the online masses – which in general are English speaking and, in the beginning, often based in the U.S.. If we had done this experiment two years ago 99%, if not 100%, of spam emails would have been in English. So we're definitely seeing spam becoming more localized. Like corporations all over the world, it's thinking local, acting global!" – Guy Roberts, McAfee Avert Labs

SPAM ON THE MOVE?

As they continued with the experiment, many of the participants noticed that many of the sites requested mobile numbers. McAfee gave some of the participants pre-pay mobile numbers to use for the experiment, but despite several registering their numbers, no one received any spam on their mobile phones.

The results of the entering the mobile numbers as part of the experiment are inconclusive, as the numbers were given towards the end of the experiment. It is possible that there wasn't enough time for spammers to use the mobile numbers. However, mobile spam is something that McAfee experts warn is on the increase.

"I've found that a lot of sites that I am signing up for are asking for my mobile number which is interesting; are they trying alternative ways to spam you?"
– Marika, Australia

CONCLUSION

After 30 days of an "all spam diet" what did we learn from the experiment?

- **Spam is still out there in abundance:** Despite everyone's efforts and precautions, it is a still a very real threat that grows at a phenomenal pace. Once subscribed, our participants proved it is almost impossible to unsubscribe from spam lists and as time passes this only gets worse.

- **Spammers will stop at nothing!** The nature of the spam received has given valuable insight into the social engineering aspects of spam that we have seen grow in the last few years; from religion, death and sick children to enticing people with offers of free products, cash and money for loans - the spammers will literally use any subject to scam people or steal valuable data from individuals or businesses. The current "credit crunch" means financial spam is very popular at the moment.

- **Spam and cybercrime are linked:** The fact that most participants received some phishing emails in such a short space of time, even though they had new email addresses, proves the danger spam carries. We should all take caution in opening suspicious emails and giving out our email addresses in cyberspace.

- **Non-English Spam is growing:** The diversification of languages of spam was higher than expected, proving that participants in different geographies receive different types of spam depending on their location. Local language spam is often harder to detect, because it is less common and this trend proves spammers are putting in more and more effort to remain inconspicuous. McAfee continues to investigate the growth of foreign language spam and predicts this as "an area to watch" in the future, as spam becomes more targeted and localized.

> *"One email strikes me because I cannot stand all that stuff that uses children to attract people's attention."* – Gabriella, Italy

> *"This project has definitely showed me very positive things. Since participating in this project I now know to be more careful where I register, what type of pages I browse…Today I pay more attention to the issue of spam than I did before. Thank you."* – Rodrigo, Mexico

- **Mobile spam has yet to really take off:** Although this area doesn't seem to have been fully embraced, many of our participants being asked to give mobile numbers. McAfee predicts mobile spam will start to grow at a similar speed to email-based spam in the near future.

- **Even if people think they know the danger of spam, they don't understand the true extent:** McAfee's participants came from all walks of life, from all over the world. Given their interest to take part in the experiment, they were all aware of the problem of spam, yet they were all shocked by the sheer amount of spam they attracted in a short time and the lengths the spammers would go to gain success.

- **There's no such thing as a free lunch!** However tempting an offer looks, they are almost always too good to be true!

> *"The lessons I have learnt from the project are so numerous I cannot list them all. I have never hated something as much as I hate this type of email."*
> – Daniel, Mexico

> *"I think we can see from the experiment is spam is such a large problem, it's never going to go away. It's no longer a question of 'solving' it, but one of 'managing' it."*
> -Jeff Green, McAfee Avert Labs

AUSTRALIA

John, Software Engineer

John was keen to explore whether spam from certain countries was generated by the same few enterprises or individuals – similar to that of organized crime. During the S.P.A.M. Experiment, he noticed the number of emails requesting mobile numbers for registration purposes was high.

"Spammers are people who in their quest to make a buck, are trying to make a killing, not a living. By imposing themselves without making an effort to win the right first, makes it a form of harassment, plain and simple. It's clear we need police online as much as we need police on our streets."
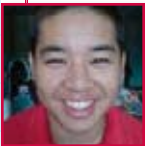
Jason, Membership Consultant

Jason wanted to take part in the experiment to explore the dark world of spam and delve deeper into the constant advertising that we are subjected to each time we surf the Internet.

"I was quite offended when I looked at an advertisement for the Christian Debt Removers Center only to find that it had nothing to do with Christianity whatsoever. I can't believe that spammers are now resorting to using religion as a means to target people!"

Marika, Mother of Two

The mother of two young children, Marika says the Internet and email are her "sacred" connection to the outside world. She was very interested in learning about the impact of spam.

"I don't know whether I would feel safe to surf to that extent again. I tried to sign up for jobs that would generate an at-home income with what seemed like respectable sites, however these sites led to massive volumes of spam. When you genuinely have a need, where can you go safely? Perhaps back to face-to-face meetings, but where's the convenience in that?"

Taylor, Computer Programmer

Taylor signed up to participate in the S.P.A.M. Experiment to experience a different side of being online – to be able to source spam, save it and analyze it, instead of the usual clicking on delete button.

"The worst part of the experiment turned out to be the sheer volume of spam emails I received during the final days from spammers that I communicated with. I almost averaged one email every two minutes! I find it quite funny that I might have upset them, as they certainly took their revenge."

Sue, Chef

Sue wanted to take part in the experiment to learn more about "a daily phenomena that we all despise." She also wanted to know how dangerous it can be for unsuspecting and new Internet and email users.

"It was amusing seeing how these scammers come up with extravagant plots to try and trick anyone and everyone into supplying their credit card details."

Global Spam League Ranking

Australia came sixth in our global spam league, with 9,214 spam emails. John from Australia also came tenth out of all the participants with 3,759 spam emails.

The 'Grey Mail' count for Australia was 1,670 bringing the total number of emails received by Australian participants to 10,884.
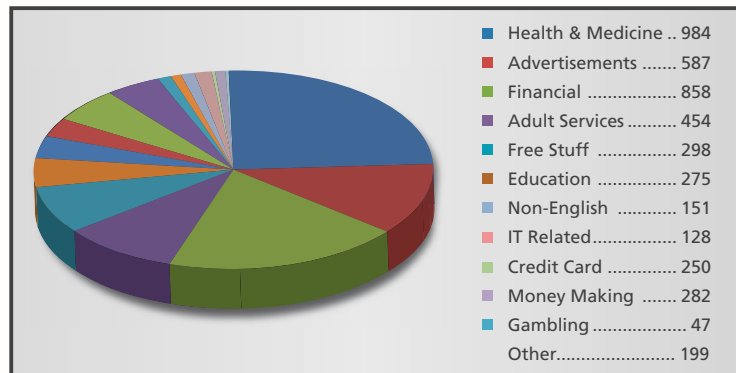
Week One

In the first week alone, the participants in Australia attracted 1,129 junk emails, the fifth highest spam count for the first week across the globe. Italy attracted the most spam with 1,864.

Phishing in the Australia

Although none of the Australian participants received malware in their spam, 9% of total were phishing emails from Chase and Citibank.

The Australian Winner in the Spam Categories

Differing slightly from the average, the most popular category for spam in Australia was Health and Medicine, followed by Advertisments and Financial incentives.

- Health & Medicine .. 984
- Advertisements 587
- Financial 858
- Adult Services 454
- Free Stuff 298
- Education 275
- Non-English 151
- IT Related................ 128
- Credit Card 250
- Money Making 282
- Gambling 47
- Other....................... 199

One of the key things noticed by all of the Australian participants, more than any other group around the world, was the spammers' interest in mobile numbers. John, noticed that they asked for mobile numbers for registration purposes, so using a pre-pay mobile SIM card, he registered. However, no spam seem to arrive suggesting the spammers haven't quite started targeting mobile phones as yet, but McAfee experts warn it's only a matter of time.

"Nigerian Scam" Spam?

In the S.P.A.M. Experiment, the infamous "Nigerian scam" spam was experienced by every country., Australia received 7% of those emails.

Spam with Adult Content

Popular across the world, adult content spam was featured in everyone's junk email collection. Australians in the experiment received a combined 6% of the adult content spam documented.

> "Since so many of the spam lead to a web site asking for a mobile number, I decided to get a pre-paid SIM to see what happens...so far no SMS spam… not what I expected." – John

BRAZIL

Darci, Retired

Darci started surfing the Internet when he retired four years ago. Agreeing to participate in the S.P.A.M. project was a big, but exciting challenge for him. Darci loves Formula 1 auto racing and regularly accesses sports and entertainment web sites.

"The expectation I had at the beginning of the experiment was huge and I was keen to find some really interesting results. I gained a great satisfaction from participating in the experiment and it really expanded my knowledge in this area."

Renato, Student

Renato has been spammed heavily in the past and was quick to take part in this experiment to gain a greater understanding of the problem of spam. Renato has a keen interest in IT strategy games, as well as electronic and IT magazines.

"Thirty days deep in spam was a real patience test for me. I would definitely do this again because I feel that this experiment has highlighted the problems people face with spam today."
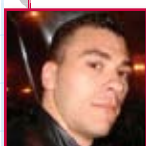
Rodrigo, Telecom Technical Coordinator

Rodrigo has always followed the news on Internet threats and network security with keen interest. By participating in the experiment, he wanted to demonstrate how big a problem spam is, especially when we access our computers without care.

"It was frustrating to see how spammers use advertising to persuade users to register on certain sites. It worries me just how much spam is out there and how much it can damage your personal computer."

Geraldo, PC and Network Assembly and Maintenance Instructor

Geraldo found that the S.P.A.M. Experiment was a great way to help him learn how to surf safely on the Internet. Geraldo likes reading IT magazines and is well-versed in being spammed.

"I thought the sound of the experiment was very intriguing and I wanted to learn how spam attacks computers. The best moment was when we tried to fool the system by typing an invalid ZIP Code and it accepted as 'your region 00000 is part of promotion participation.'"

José, Journalist

An IT journalist and an average Internet consumer, Jose uses many online tools to combat spam and viruses. He was keen to find out how quickly an average Internet user with little knowledge of Internet security can be spammed and their inbox rendered useless.

"The opportunity to browse the Internet without any care was something new to me. I was fascinated about where this journey would take me. By taking part in this experiment, I learned about the different ways to collect spam and how unwanted emails are spread."

Global Spam League Ranking

Participants in Brazil attracted the second highest number of spam emails with 15,856. Individually, Geraldo in Brazil attracted the third highest number of spam out of all the participants, with 6,000 spam mails.

The 'Grey Mail' count for Brazil was 2,198 bringing the total number of emails received by Brazilian participants to 18,054
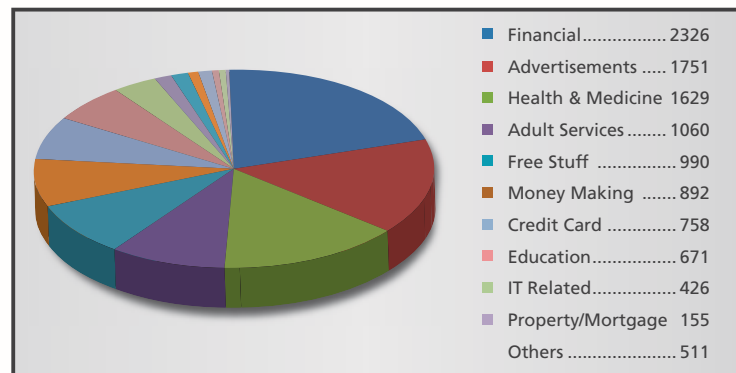
Week One

In the first week, Brazil attracted 799 emails, the sixth highest amount across the globe. This is surprising given they attracted the second highest number of spam emails in total, but the Brazilian participants started to attract significantly more in second and third weeks with 3,579 and 5,169, respectively.

Phishing in Brazil

Although none of the Brazilian participants received viruses, 11% (the fourth highest statistic) of the spam emails received in Brazil were classified as phishing emails. These emails supposedly came from Chase, AccessBank, Abbey and Bank of America.

The Brazilian Winner in the Spam Categories

The most popular categories of spam in Brazil are the same as the global average with spam on the subject of Finance being the most popular, followed by Advertisements and Health and Medicine.

Financial	2326
Advertisements	1751
Health & Medicine	1629
Adult Services	1060
Free Stuff	990
Money Making	892
Credit Card	758
Education	671
IT Related	426
Property/Mortgage	155
Others	511

Nigerian Scammers Target Brazil

The infamous "Nigerian scam" spam was experienced by every country. In Brazil, participants received the third highest number of emails of this nature, attracting 14% of the total.

Spam with Adult Content

Spam with adult content is also very popular – as the scammers exploit people's reluctance to buy these kinds of products face-to-face. Brazilian participants received the third highest volume of adult spam with 14%, beaten only by participants in the U.S. (29%) and the U.K. (19%).

Do Spammers Speak Portuguese?

The majority of the spam received in Portugal was in English, with just 1% in Portuguese—the lowest number of local language spam received around the world.

Percentage of foreign language spam received by Brazilians:

- English....................57%
- Unclassified.............42%
- Portuguese 1%
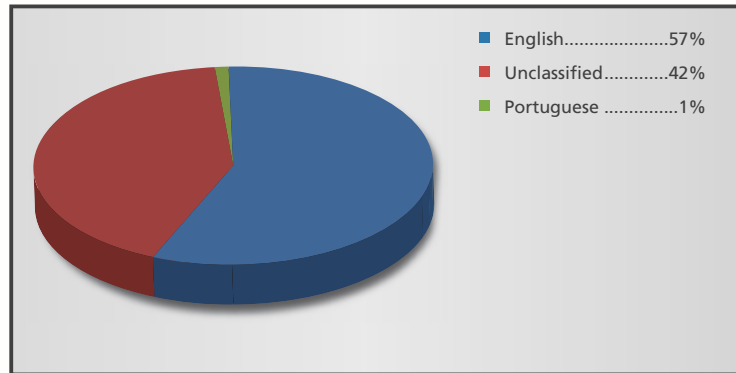
> "I think it is fair to compare this situation to traffic. For example, when I enter one of the roads in the morning in São Paulo, I don't have to do anything, just move a meter at a time. So when I get to my email, I feel the same – I go from message to message and I don't have to do much and just like the traffic where more cars keep coming, there is an avalanche of email messages." – Renato

FRANCE

Christophe, Retired, Evreux:

Christophe has always been interested in technological development and loves to surf the Internet to spot any opportunities for a good deal. Since participating in McAfee's S.P.A.M. Experiment, Christophe has become increasingly frustrated by the countless spam emails he receives each day as well as with the enduring pop-ups on almost every site he clicks on.

"There are certain sites that are a real nightmare! You click to close it but then have two or three other sites that pop up, just this is irritating enough."

Gilles, Professional Blogger, Paris:

Gilles is a full-time blogger and knows all too well that spam comes hand-in-hand with surfing the Internet. Gilles wanted to take part in the S.P.A.M. Experiment to help highlight and fight the sheer number of spammers to help improve everyone's experience on the Internet.

"Spam has been something that has always been present in our online lives – let's stop it!"

Steven, Journalist, Paris:

As a journalist, Steven has a natural curiosity for all things technological, which is why he did not hesitate in saying yes to taking part in the S.P.A.M. Experiment. This experiment was a way for him to understand more about spam and to compare differences.

"During the experiment, I took a real interest in surfing U.S. and English speaking sites and comparing the spam I received from them to that of French sites. I think that because I concentrated on English speaking sites, I had more pop-ups than other French participants."

Matthieu, Teleworker, Paris:

Matthieu has always had an interest in what the Internet has had to offer. The S.P.A.M. Experiment was the perfect opportunity to learn more about cyberspace. For the vast majority of his job, Mattieu uses the Internet to research and communicate with others and has a consistent stream of spam emails for many years.

"I've always dreamed of being richer, the most successful, the most intelligent so my goal in the experiment was to reply to the as many spams as possible that promised never-ending wealth and success and to see if any worked! "

Elizabeth, New Mother, Boulogne-Billancourt:

A new mother, Elizabeth spends a lot of time surfing the Internet to find advice for handling her baby. She wanted to participate in S.P.A.M. Experiment to gain a better understanding of the dangers of junk email so that she will be able to educate her child on the safe way to use the Internet.

"It is scary to think how much the Internet and spam has developed over the past few years. I wanted to find out how we are now being targeted by these fraudsters and learn what my family and I should look out for."

Global Spam League Ranking

In France, the 5 participants received a total of 2,597 spam emails, the second lowest spam count of all the countries taking part in the S.P.A.M. Experiment.

The 'grey mail' count in France was 222 - bringing the total number of emails received by the participants to 2,660.
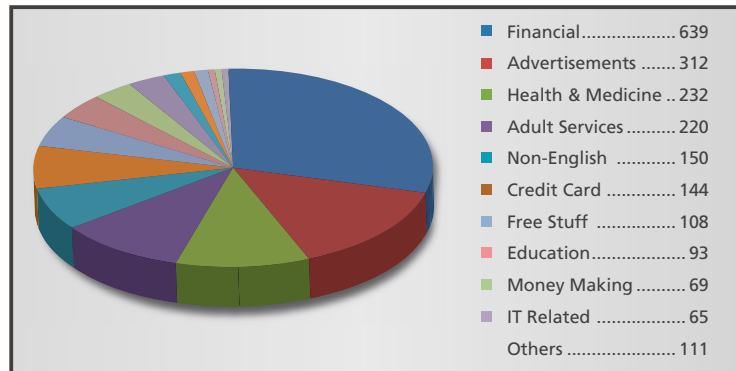
Week One

Unsurprisingly, given that the French participants attracted the overall lowest levels of spam, the total spam count in the first week was the lowest of all the countries with 47 spam emails.

Phishing in France

Although the number of spam emails in France was low, 3% of them were phishing emails were higher than the number of phishing emails received by the German group, even though they there received more spam. Like other countries, these junk emails supposedly came from Chase and Bank of America.

The French Winner in the Spam Category

Consistent with the spam received worldwide, the most popular type in France was of a Financial nature, followed by Advertisements and Health and Medicine.

- Financial 639
- Advertisements 312
- Health & Medicine .. 232
- Adult Services 220
- Non-English 150
- Credit Card 144
- Free Stuff 108
- Education 93
- Money Making 69
- IT Related 65
- Others 111

Nigerian Scammers Target the French

In the S.P.A.M. Experiment, the infamous "Nigerian scam" spam was experienced by every country, however, the French participants received the least spam emails of this nature attracting only 2% of the Nigerian scam spam. Similarly, the French participants attracted the least spam with adult content, only just 3%.

Do Spammers Speak French?

Of the spam received by the French participants, 11% was in French (one of the highest foreign language spam counts), and higher than was anticipated by McAfee's research experts. This was something that was noticed by the French participants:

- English.....................49%
- Unclassified.............40%
- French 11%
- Norwegian 0.05%
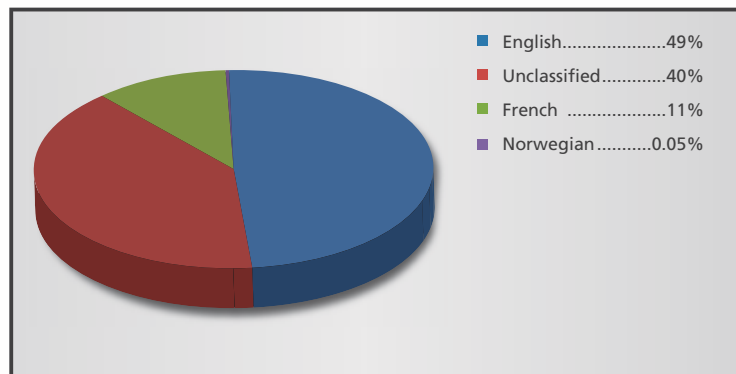
> "French language sites are always less numerous than English language sites. Is that due to legislation? Do the French sites not think there is enough business at stake?" – Christophe

> "The more spam I receive, the more I tell myself that one must be borderline stupid to believe 99% of the messages. Especially if you are French, do not have an EBay or PayPal account and have no America acquaintance called John or Cindy (who furthermore is offering me things that are rather inappropriate for someone I don't remember having met!" – Libby

GERMANY

Dominik, Student, Passau:

Dominik was curious to find out what really happens if you reply to spam emails. He wanted to find out more about the legitimacy of spam offers sent to him, but was most interested in the tricks spammers use to obtain money.

"I joined the S.P.A.M. Experiment to unravel some of the business models spammers use and to try to understand why they act the way they do."

Stefanie, Journalist, Munich:

Stefanie has been telling her readers how to protect themselves from hackers and spam for some time now. So she jumped at the chance to expose herself to the many risks on the Internet. During the experiment, she learned what happens when you share your email address in a careless fashion.

"One thing that particularly surprised me was that German sites seem to pay more attention to privacy laws then other countries - the main exception being online raffle sites."

Agnieszka, Artist and Mother, Murnau:

Agnieszka wants to learn more about the underlying threats on the Web so that she can teach her son how to stay safe online. She was surprised to receive so many different types of spam from a number of countries – especially from Poland, Agnieszka's home town.

"I am baffled how spammers can make any money at this. How they can make a living by just distributing spam? It's a very complex issue – one that seems to be growing and growing."

Andy, Software Developer, Munich:

Andy is a technology enthusiast. He was curious to take his understanding to another level and look at the world of spam that lurks under the surface of the Web.

"I just don't understand how all those spammers can still make money and survive in today's world where almost everybody has spam protection. Maybe that's one of the reasons why there are fewer spammers in Germany now and spammers in developing countries are still on the rise?"

Philipp, TV Journalist, Munich:

Philipp spends time on the Internet at work as well as in his free time and doesn't usually receive a huge amount of spam. This changed quickly as soon as he started the experiment without any spam protection filters on his laptop!

"I wanted to gain as much insight into spam as possible and share my experiences with a wide audience through my blog diary entries. I now really understand how well my work computer is protected from all the threats on the web."

Global Spam League Ranking

Compared to other countries in the S.P.A.M. Experiment, the participants in Germany received much less spam. In fact, they received the least spam of all the countries taking part with just 2,331 spams, just 2% of the spam received.

The 'grey mail' count for Germany was 824 - bringing the total email count for 2,331

Week One

As Germany didn't receive an extremely high level of spam in total, the participants did get off to a slower start than other groups around the world. However, they still attracted 422 spam emails in the first week.
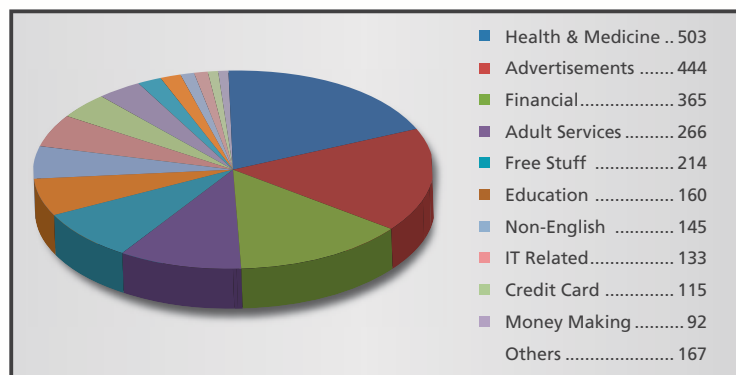
Phishing and Malware in Germany

Although Germany received less spam than other countries, one of the participants received one of the most dangerous pieces of spam of all. On the April 24, Stefanie received a mail with the subject line that read "failure message." It was sent by a botnet in Japan. If Stefanie had clicked on the attachment, her machine would have been added to the botnet by the virus and Stefanie's machine would have them been used to send spam viruses. Stefanie could have unsuspectingly become a spammer herself. McAfee Avert experts detected the virus as "Expoloit-MIME gen c."

In terms of phishing, only 1% of the spam received by German participants were phishing emails.

The German Winner in the Spam Categories

In terms of the most popular type of spam received by the Germany group, Health and Medicine topped the list, differing only slightly from the global average.

|	
■ Health & Medicine ..	503
■ Advertisements	444
■ Financial..................	365
■ Adult Services	266
■ Free Stuff	214
■ Education	160
■ Non-English	145
■ IT Related.................	133
■ Credit Card	115
■ Money Making	92
Others	167

Are German Consumers a Target?

The results of the experiment do not show that spammers are targeting German consumers for any one thing in particular. Like everyone else in the experiment, the participants received the inevitable "Nigerian scam" spam, attracting 3% of the overall figure and adult content spam, attracting 4% of the overall figure.

Less Spam but More Targeted

Stefanie noticed that the German web sites seem to pay more attention to privacy laws, which may explain why the Germany group received less spam overall. Still, Germany had one of the highest levels of spam in its local language, with 14% of the spam being written in German. This fact, coupled with the virus found, one may suggest German spammers are sending less spam but are becoming more targeted.

- Unclassified.............49%
- English.....................37%
- German 14%
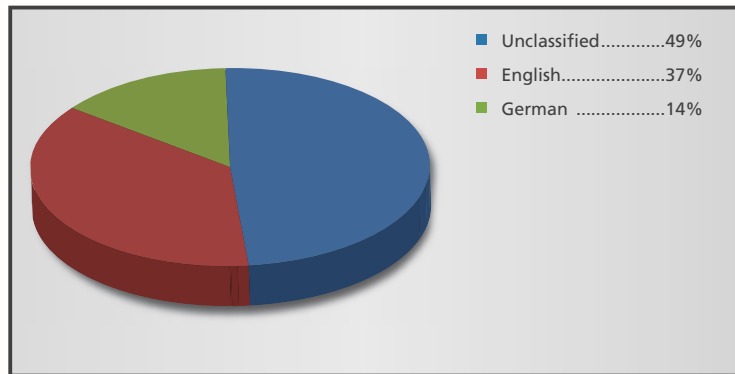
ITALY

Marica, University Student, Milan

Marica usually surfs the Web for university research as well as looking for information on vacations in her spare time. Before the experiment, Marica would receive spam in her inbox every day and wanted to learn more about how spammers identify and target people.

"I was really excited to be involved in this all-spam diet experiment in order to better 'know the enemy' and to learn how to defend against network scams. But most of all, for once, I wanted to be the roper and not the one who is roped in!"

Ingrid, Employee and Mother, Bologna

Ingrid surfs the Web for about one hour a day and goes online for news and information on her home and children. She thinks that all information is considered valuable by spammers and, therefore, it is important to highlight online threats.

"Sourcing people's data is essentially the engine that feeds spam – it's a daily nuisance to us all. We are forced to be aware of opening an attachment because it may be a virus and that only wastes our time and breaches our privacy."

Gabriella, Retired, Milan

Gabriella surfs the Web for around one hour a day. She goes online to source information on her hobbies and vacations.

"I think that spam is bothersome and annoying. Before the experiment, I tried to avoid any kind of interaction with this kind of emails because I thought it would damage my PC. The experiment enabled me to better understand what spam actually is."

Giuseppe. Expert in Mechanical Engineering, Milan

For Giuseppe, experiments are part of his job but this particular one was a challenge for him because it was one in which he was virtually force-fed spam. He mostly uses the Internet during the working week but he also likes to contact people to share information and experiences.

"The experiment forced me to stay connected for an entire month, a real endurance test! Because of my job, I have a deep understanding of physics, mathematics and mechanics, but I was enthusiastic to take part in the S.P.A.M. Experiment to see if the butterfly effect applies in the cyber world, too."

Giuseppe. Journalist, Solbiate Olona (Varese)

With his editorial focus on the IT sector, Giuseppe is well versed in living with spam. One thing he always found particularly hard was to separate his spam email messages from his personal emails. He was interested in taking part in the S.P.A.M. Experiment for the chance to interact with the weird and wonderful possibilities on the Web, as well as to expand his understanding of spammers for his own professional use.
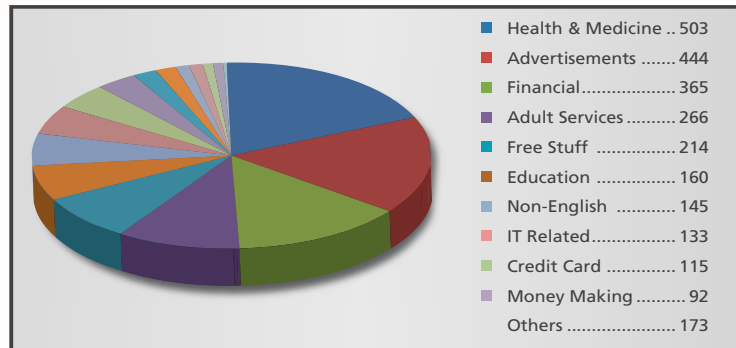
"Where is there a better opportunity than the S.P.A.M. Experiment to understand this world in depth? I thought that it was great to have a month of freedom to surf the Internet with no hesitation or protection – almost like when a child is allowed to play free in a muddy puddle!"

Global Spam League Ranking

Italy came third in our global spam league, attracting 15,610 messages, ahead of English speaking countries such as the U.K. and Australia. This is interesting because most of the non-English speaking countries attracted significantly less spam due to the fact that most of the spam was in English. Only 2% of the spam attracted by Italian participants was in Italian.

Percentage of foreign language received by Italians:

Health & Medicine ..	503
Advertisements	444
Financial..................	365
Adult Services	266
Free Stuff	214
Education	160
Non-English	145
IT Related................	133
Credit Card	115
Money Making	92
Others	173

Italy had two participants that attracted high levels of spam. Giuseppe attracted the second highest level of spam of all the global participants with 6,490 messages and Gabriella with the sixth highest level with 5,019 messages.

The 'Grey Mail' count in Italy was 5,247 bringing the total number of emails received to 20,857.

Week One

In the first week alone, the participants in Italy attracted 1,864 spam emails - the highest spam count for the first week across the globe. It is worth noting that this is significantly higher than Italy's European counterparts Germany (422), France (47) and Spain (159).

Phishing and Malware in Italy

Guiseppe attracted one of only two viruses found in the spam; he received a message supposedly from "Microsoft Message Delivery Service" that was sent from a machine in Japan. Like Stefanie in Germany, if he had clicked on the attachment, his machine would have been infected by the virus, added to the botnet and subsequently used to send spam.

Italy also received the highest percentage of phishing email with 22% of their emails being classified in this way. Emails supposedly from Chase were the most prominent, but there were also emails from eBay, Bank of America, CitiBank, Abbey and Poste.it. Again, this is significantly higher than the Spanish or German participants, suggesting that Italy is a specific target audience for spammers.

The Italian Winner in the Spam Categories

Like all the countries that took part, the top three categories for the spam attracted by the Italian participants were Health and Medicine, Advertisements and Financial. Italy differed slightly in that Health and Medicine was the most popular category, rather than Financial, the most popular category globally.
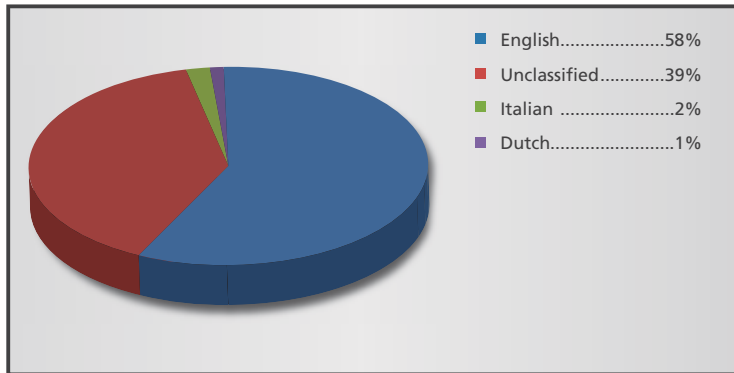
- ■ English.....................58%
- ■ Unclassified.............39%
- ■ Italian 2%
- ■ Dutch.........................1%

In the S.P.A.M. Experiment, the infamous "Nigerian scam" spam was experienced by every country, including Italy. However, surprisingly – compared to the huge amounts of spam and phishing emails that the Italian participants received – only 3% of the emails were from "Nigerian spammers." Similarly, only 3% of the spam received by the Italian participants was of an adult nature.

Will It Arrive?

Giuseppe used a pre-pay credit card to order some "Easy Weight Loss Tea" that was shipped to him and successfully arrived. Whether the tea actually aids weight loss remains in question but it is somewhat surprising that the product was actually sent. In addition to Giuseppe, Jorge from Spain and Ian from the U.K. ordered some Viagra that also arrived, proving that spammers are earning money actually selling and sending products.

"Every day the number of emails increases exponentially. In the first days there were 10 or 20 messages coming in each day, now the emails reach two hundred a day! It is true that many messages are repeated, with the same sender or with the identical message but a different sender." – Giuseppe

BACKGROUND INFORMATION ON MEXICAN PARTICIPANTS

Lorena, Housewife

Lorena's experience online consisted of surfing the net for health and baby advice. She had a limited knowledge of spam and what it could do.

"By taking part in this project I learned a great deal about the Internet and spammers. I only just realized how important it is to have a safety filter to detect and to stop information that can turn out to be dangerous. I cannot believe the how far spammers go to scam us out of money or information! I think that it is important to educate everyone about what can happen."

Daniel, Journalist

Daniel has a keen interest in the Internet and relies on it heavily when he is researching for articles that he is writing. The experiment has really opened his eyes to the malicious nature of the Web and the preventative measures we all should take to stop cybercriminals in their tracks.

"Now I know so much about this issue, I feel that the mass media should inform Internet users about the problems we all face, especially those who do not have any anti-virus software or knowledge about the threats on the Web."

Eduardo, Executive

With this experiment Eduardo wanted to be able to immerse himself in the Web so he could fully understand its workings and potential hazards. To do this, he devoted himself to surfing outside of his comfort zone, so he could really explore what the Web has to offer.

"The experiment was a great learning experience for me and I realized that I need protection from all the malicious software that exist. I already knew not to go on every page I was directed to but I have also learned that I shouldn't open up suspicious emails as well. It's disturbing that so few people know exactly what is available on the Internet and how easily they can be scammed."

Sergio, Engineer

Sergio was intrigued to find out what was really out there in the world of spam. He is a keen Internet user in his leisure time and is aware of the threats on the Web. He usually sticks to the web sites he knows are safe.

"At first, surfing in places that I had never visited was a bit daunting as was trying everything that they offered you in cyberspace. This experiment helped me understand a world that I never imagined even existed. It was a very entertaining experience!"

Rodrigo, Student

Despite using the Internet regularly for university work and project research, Roderigo did not know a lot about it. Prior to the experiment, he occasionally instant messaged and emailed with his friends, but wasn't really aware of the threats out there.

"I thought that the experiment would be simple and that the spam would not reduce my laptop's capacity as much as it did. Very soon into the experiment I realized that I had been wrong! I can't believe how much spam I actually received and how realistic they can be."

Global Spam League

Mexico came fourth in the global spam league, attracting 12,229 messages in total. Rodrigo from Mexico had 5,221 spam emails - the fifth highest number across the globe.

The 'grey mail' count for Mexico was 3,178 bringing the total number of emails received in Mexico to 15,407.

Week One

In the first week alone, the participants in Mexico attracted 1,783 spam emails - the second highest spam count for the first week across the globe, behind only Italy.
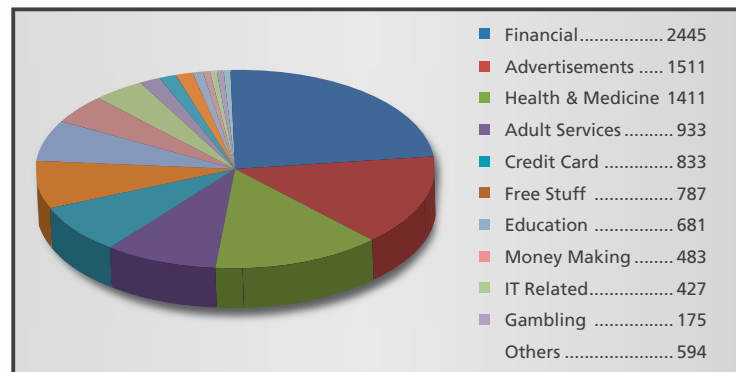
Phishing in Mexico

Although none of the participants in Mexico received a virus, 17% of the spam emails received were classified as "phishing emails" - the third highest percentage across the globe. These emails spoofed well-known companies, including Chase, Bank of America, AccessBank, Abbey, American Express and HangSeng.

The Mexican Winner in the Spam Category

The most popular spam categories in Mexico were consistent with the global averages. Spam relating to financial offers was the most popular topic, followed by advertisements and health and medicine.

Percentages of the types of junk email received by the Mexicans in the S.P.A.M. Experiment:

|	
Financial	2445
Advertisements	1511
Health & Medicine	1411
Adult Services	933
Credit Card	833
Free Stuff	787
Education	681
Money Making	483
IT Related	427
Gambling	175
Others	594

Nigerian Scammers target Mexicans

In the S.P.A.M. Experiment, the infamous "Nigerian scam" spam was experienced by every country. Mexico received 14% of the total Nigerian spam, the fourth highest percentage of all the countries.

Spam with Adult Content

Across the globe, Spam with adult content is also very popular – as the scammers exploit many individuals' reluctance to buy these kinds of products face-to-face. Mexico received the fourth highest level of adult content spam with 12% of the total.

Do you speak English?

As with other non-English speaking countries, except for France and Germany, Mexico received a very low percentage of spam in Spanish, the country's official language. 57% of the spam received in Mexico was written in English.

English....................57%
Unclassified.............41%
Spanish 1%
Portuguese................1%
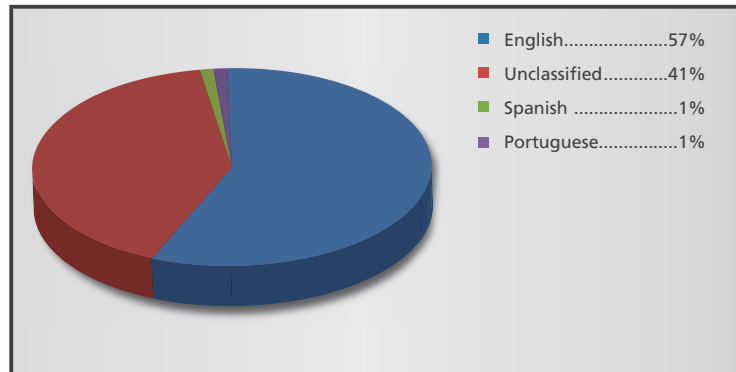
THE NETHERLANDS

Marion, Mother and Welfare Worker, Hilversum:

The Internet and email has a central role for each member in Marion's family. The S.P.A.M. Experiment was a challenge, mainly because she found the email she was receiving were quite annoying and aggravating. She was also worried about the effect spam may have on her family.

"It was impressive to see how much spam you can attract simply by surfing. Receiving spam almost became a sport. Ultimately, the realization of how visible you are when you're surfing on the net is quite shocking. It's good to have seen the other side of Internet and now I feel more prepared."

Kiki, Police Officer, Almere:

A police officer in Amsterdam, Kiki likes to surf on the Internet to shop, keep in contact with friends and keep up to date with news from around the world. Taking part in the experiment gave her a chance to understand more about spam.

"Never had I thought that a few online registrations would result in thousands of spam emails in one month! It was very frustrating having a computer that got slower as the experiment went on! If I wanted to surf for a quick five minutes to kill time – I had to access my email account to delete the spam before I could surf again!"

Sjoerd, Arts Academy Student, Amsterdam:

Sjoerd wanted to take part in the S.P.A.M. Experiment to explore the artistic side of spam. A heavy Internet user, Sjoerd always found it strange to receive around five spam messages a day on his personal account and he really wanted to see what spam was out there.

"One of the most frequent spam emails that I received said I had won the lottery. It was brilliant but it also gave me a greater understanding of how spammers work. It baffles me that with all of their technology, they still target the same people with the same email day in, day out."

Mark, Marketing Manager, Amsterdam:

The intriguing idea of leaving your personal email address on the Web and then sitting back to see what happens was a big reason for Mark to take part in the experiment.

"Of course this experiment has helped me decrease the amount of spam I receive. The best spam offer was sent from some Indian financier who told me about the millions of euro's out there waiting for me!"

Dennis, Journalist, Amsterdam:

Because Dennis likes to collect spam and write about it in a funny way, the offer to participate in this experiment left him no option but to say "Yes!"

"Early into the month, I worried I wasn't getting enough spam, but the longer my email and details were out there, the more I was spammed. I found that I got a lot of the same spam, which I found quite annoying!"

Global Spam League Ranking

Participants in The Netherlands came seventh in our global spam league with 6,378 spam emails.

The 'Grey Mail' count for The Netherlands was 1,642 bringing the total number of emails received to 8,020.
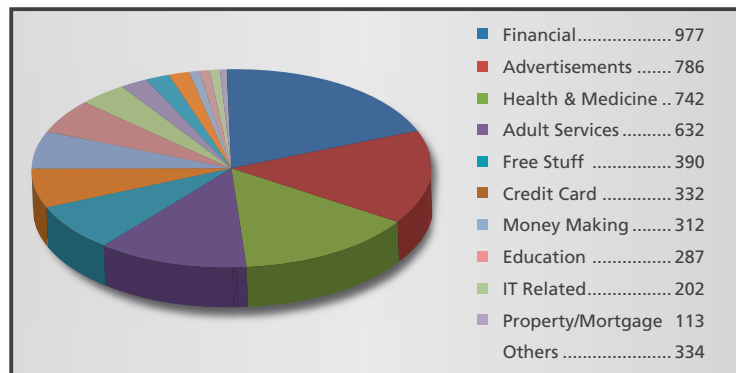
Week One

In the first week alone, the participants in The Netherlands attracted 654 spam emails, ranking them at number seven compared to the first week statistics from participants from the other countries.

Phishing in The Netherlands

Although participants in The Netherlands didn't receive any malware, 7% of the spam emails received by Dutch participants were classified as phishing emails. The emails supposedly came from American banks Chase, Bank of America and American Express.

The Dutch Winner in the Spam Categories

Consistent with the findings around the world, Finance spam was the most popular subject in The Netherlands, followed by Advertisements and Health and Medicine.

|	
Financial	977
Advertisements	786
Health & Medicine	742
Adult Services	632
Free Stuff	390
Credit Card	332
Money Making	312
Education	287
IT Related	202
Property/Mortgage	113
Others	334

Are Dutch Consumers a Target?

In the S.P.A.M. Experiment, all of the participating countries received some form of the infamous 'Nigerian Scam' spam. Participants in The Netherlands received 7% of the Nigerian spam. Spam with adult content also featured in the Dutch participants spam collections, attracting 8% of the total adult content emails collected in this experiment. This indicates spammers aren't necessarily targeting the Dutch for anything in particular, but they are, nevertheless a target.

Do You Speak English?

English was the most popular language for spam and only 3% of the spam received was in Dutch:

- English.....................60%
- Unclassified.............37%
- Dutch 3%
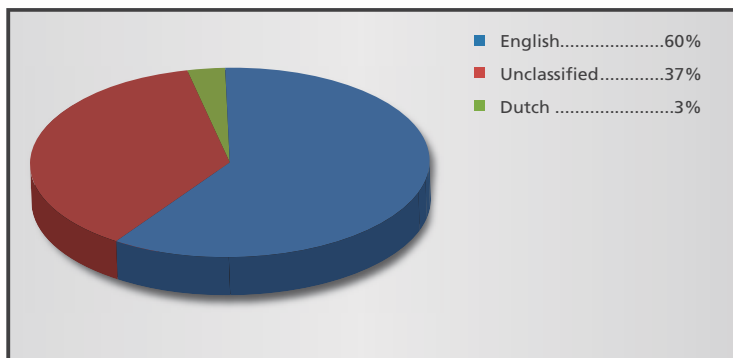
"It's mostly the same: old cars, shopping, sex, fat women just waiting for you… speaking of fat; the subject line in one message reads: Kiki this is why you're fat! Wrong, Kiki is not fat, maybe her PC is with all that spam but that's a different story. " – Kiki

SPAIN

Francisco, Computer Engineering, Salamanca and Madrid:

Paco, a Computer Engineering in Madrid, joined the S.P.A.M. Experiment because he is interested in everything to do with the world of computers.

"I really enjoyed participating in the experiment and interacting with the spam – I certainly had enough to interact with! I thought it was really interesting to answer the spam emails in Spanish and in English to show that these addresses generated an automatic answer, independent of the language – they just want your money or identity"

Jorge, Engineer Student, Madrid:

Jorge was interested in this project because he wanted to see whether sports web sites generated more spam than other web sites. Jorge concentrated on surfing sports sites but also expanded to dating and social networking.

"One thing I think was quite enjoyable abut the experiment was that I surfed sites that I would not normally surf. It was a funny feeling not to worry about what sites I was looking at and what I was doing."

José Luis, Retired, Madrid:

José Luis has a lot of time to surf the Internet since he retired. He has a keen interest in the online world and was able to spend more than one hour a day surfing.

"I found that I received more spam when I clicked on English language web sites rather than Spanish only – I guess spammers are going for the mass markets."

Rosalía, Journalist, Madrid:

Rosalía, joined the S.P.A.M. Experiment because of her interest in the today's technology .

"Spam today seems to be growing in momentum. It's worrying to see how these emails have morphed in the past few years to fool people again and again."

Manuel, Systems of Management, Madrid:

Manuel mainly surfed on Spanish lifestyle web sites to compare his experiences to other Spanish participants. Overall, he found that his spam intake was lower than those clicking on English-speaking sites.

"The world of spam is a very interesting and complex one. I think that it is important for everyone to understand how they are spammed. I certainly feel that by doing this experiment, I have a greater understanding of what spam is and how to avoid being spammed."
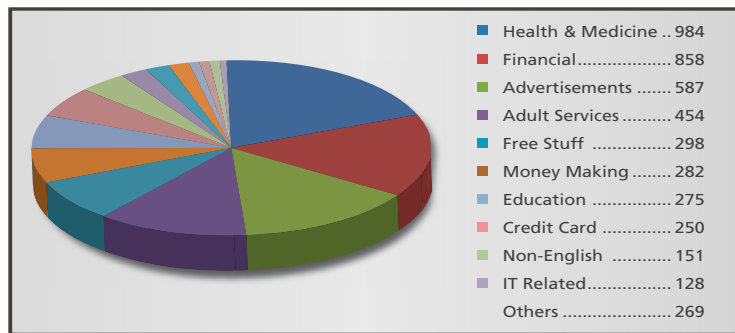
Global Spam League Ranking

Spain finished towards the bottom of our global spam league rankings with 5,419 spam mails. However, José attracted 4,034 spam mails, meaning he was eight in the individual spam league. The fact that José attracted more spam than other Spanish participants is mainly due to the fact he is retired, was able to spend more time on the Internet than the other participants and he also specifically targeted English language sites.

Week One

The Spanish participants also got off to a slow start, attracting just 159 spam emails in the first week, compared to 1,864 emails that were attracted by the Italian participants. Spanish participants received significantly less spam than those in other countries. This may have been due to the fact they were surfing on Spanish language sites, rather than English, and there didn't seem to be as high a volume of spam in their local language.

Spain received 1,206 'grey mails' bringing the total emails the Spanish participants received to 6,625.

|	
Health & Medicine	984
Financial	858
Advertisements	587
Adult Services	454
Free Stuff	298
Money Making	282
Education	275
Credit Card	250
Non-English	151
IT Related	128
Others	269

Phishing in Spain

Even though the Spanish participants didn't receive exceptionally high levels of spam, 4% of them were classified as phishing emails. The phishing emails were supposedly from American banks, Chase and ANZ.

The Spanish Winner in the Spam Categories

Differing only slightly from the global average, Spain's most popular spam category was Health and Medicine, followed by Financial spam and then Advertisements. The types of spam that fall under Health and Medicine include the infamous "Viagra" spam, plastic surgery offers and weight loss solutions.

- English.....................52%
- Unclassified.............41%
- Spanish 6%
- German 1%
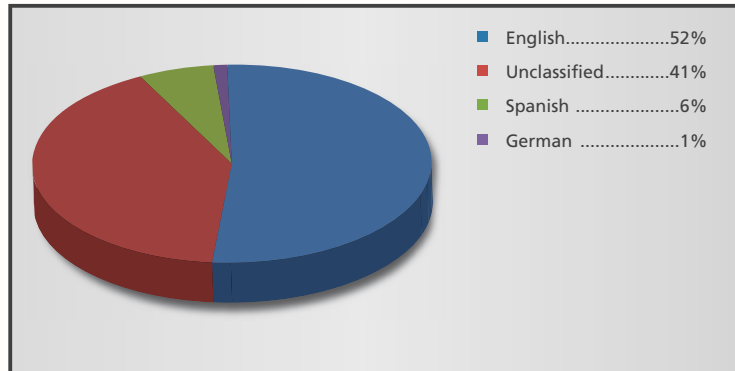
Will It Arrive?

On the popular topic on Health and Medicine, as with his counterparts in Italy and the U.K., Jorge ordered some products from the offers in the spam emails.

Surprisingly, both the Viagra ordered by Jorge and the weight loss tea order by Giuseppe in Italy arrived. The tea and Viagra are unlikely to be the genuine article, but it does prove that spam is more than a nuisance and there are cybercriminals out there making money from spam.

Are Spanish Consumers a Target?

In the S.P.A.M. Experiment, the infamous "Nigerian scam" spam was experienced by every country. Spain received 7% of the total Nigerian spam. Spain also received 6% of all the adult content spam. These figures are fairly low, which is to be expected as the overall spam count was lower, but it shows that the Spanish are not being targeted specifically for one thing. However, the phishing emails and levels of spam show they are definitely being targeted.

"I have spent money on viagra.." – Jorge

U.K.

Danni, Student, Manchester

Danni is a heavy user of the Internet – in particular with social-networking sites such as Facebook and MySpace. Before the S.P.A.M. Experiment, she didn't really know much about spam, but had recently noticed more and more spam on her Facebook site and was intrigued to learn more about it.

"I have learnt that you can't trust anyone on the Internet. Spam creates a vicious circle of which, as consumers, we can gain no relief. I cannot believe that spammers encourage us to give over personal details by recalling a story of a girl who had no family or money in Africa. I think it's sad that the spammers have got to the point where such messages are produced."

Vic, Retired, Scarborough

Vic's interest in the Internet really took off when he moved to the U.K. from Zimbabwe, whereby he was able to spend more time online and explore what email and the internet had to offer.

"In October 2007 no fewer than 3476 of 7999 incoming messages were spam - 43.6%. No wonder I lost important mail whilst deleting unwanted messages…..And the spam itself? There seems to be only one way to deal with it: speed-read the subject, and then hit the delete button!"

Ian, Entrepreneur, Glasgow

Before getting involved in the S.P.A.M. Experiment, all Ian knew about spam was that his junk inbox was generally fuller than his genuine email inbox! Ian got involved to explore the gloomy world of spam and the Internet.

"I am not a huge computer person so it was all new to me but this experiment gave me the excuse to go places and talk to people I ordinarily wouldn't bother with! I have learned that a lot of people would like to take a lot of money from you and that the Nigerian government didn't actually want to give me lots of cash!"

Lesley, Quality Control Officer, London

The experiment was a real family affair with her husband, son, and daughter, all signing up for spam. The family didn't know much about spam before the experiment but Lesley thought it was a good opportunity for them to learn more about what spammers were doing.

"I was amazed at how much rubbish is generated by the Internet. I thought I got a lot of junk mail through my letter box – but this experiment took this to different levels!"

Simon, Software Developer

Prior to the S.P.A.M. Experiment, Simon had his hotmail account rendered useless because of spam. While doing the experiment, Simon was keen to communicate with these spammers to try to comprehend why they send spam (other than monetary reasons!) – in other words to understand the "dark" side!

"I think that if everyone in the world replied to spam with bogus information, the spammers computers would be so inundated with their own rubbish it would crash their systems!"

Global Spam League Ranking

The U.K. finished fifth in our global spam league, attracting 11,965 messages in total. Simon from the U.K. had 5,414 spam emails, the fourth highest number across the globe.

The "grey mail" count for the U.K. was 3,586 - bringing the total email count for the U.K. participants to 15,551.
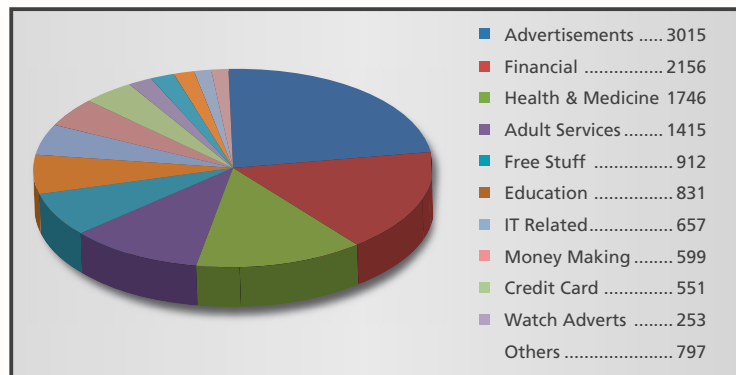
Week One

In the first week alone, the participants in the U.K. attracted 1,149 junk emails, the third highest spam count for the first week across the globe. Italy attracted the most with 1,864.

Phishing in the U.K.

Although none of the U.K. participants received viruses, 8% of the spam emails received were classified as phishing emails. These emails supposedly came from Chase.com, Bank of America, Wachovia.com and eBay.

The British Winner in the Spam Categories

The most popular spam category in the U.K. differed slightly from the global average with Advertisement spam topping the list:

■ Advertisements	3015
■ Financial	2156
■ Health & Medicine	1746
■ Adult Services	1415
■ Free Stuff	912
■ Education	831
■ IT Related	657
■ Money Making	599
■ Credit Card	551
■ Watch Adverts	253
Others	797

"Nigerian Scammers" Target the U.K. Most Frequently

In the S.P.A.M., experiment, the infamous "Nigerian scam" spam was experienced by every country, but it was the U.K. that received the most spam of this nature attracting almost a quarter (23%) of all the total "Nigerian" spam received, suggesting the U.K. may be the most lucrative audience for these scammers!

Spam with Adult Content

Across the globe, spam with adult content is also very popular – as the scammers exploit people's reluctance to buy these kinds of products face-to-face. The U.K. received the second highest level of adult content spam with 18%, beaten only by the U.S. group.

Although overall during the experiment we witnessed an increase in the levels of local language spam, most of the spam remains in English, targeting the widest and most lucrative audience possible.

Much of spam received in the U.K. was destined for U.S. residents, as Danni noticed:

"I started noticing a lot of spam is for American residents only. When I try to reply to the emails they inform me that due to my residency they cannot complete my request – great, not only am I receiving loads of pointless emails but I also can't do anything with them because I'm not American!"

U.S.

Evan, Blogger, Los Angeles:

Evan, is always looking to uncover the quirky side of technology. He has a love/hate relationship with spam. He "hates the volume, but loves the absurdity of some offers." He's been stock piling his favorite spam emails for several years, and has a folder of his favorite online hoaxes.

"Having plumbed the depths of the Internet, a few things became very clear over the course of the experiment. For one, it's amazing to see how spam multiplies at such an exponential rate. If you get on one wrong list, your email address can so easily be passed on to dozens of other spammers—it's an infinite loop of spam. It multiplies like crazy—like a virus. And it just keeps coming. Apparently a spam site pops up every three seconds. Is it a question of the laws not being enforced strictly enough? Or not being able to track the spam back to its original source?"

Bill, Retired Accountant, San Francisco:

Bill spends between 15-25 hours online per week and joined the experiment with the goal of attracting some unique spam. Bill volunteered for the project because he "hates spam and the ads foisted on me by my ISP." Before starting the experiment, Bill threw down the gauntlet challenging online criminals to "spam me if you dare."

"At one point several days ago, my inbox contained over 2800 spam messages, so fast were they arriving and in such quantity that I could not keep pace with their number. Being thus enlightened and wiser yet humbler, if it all gets too much for me, I can always turn off my spam filter, get myself a big beautiful HOT Christian single and see what comes next."

Tracy, Realtor and Mother of Three, Chicago:

Tracy, is no stranger to spam attacks. With two web-surfing teens in the house dabbling in social media and file sharing, Tracy tries to stay on top of the latest threats and protect herself and her family against them. Her family's computer fell victim to a virus just before Christmas and crashed.

"We started with a brand new computer that was lightning fast. We ended with a computer that takes a long time to open even the simplest of web pages and I fear may be tracking every keystroke and page we visit. I've have had the 'government' of Nigeria looking for me to give me an inheritance and my PayPal account tapped into by an overseas IP address. I would like to say that the one thing I hope the public gets from this experiment is that if a site or email looks like it might be to good to be true, or looks like it might be junk, just go the other way. There is no such thing as a free iPod, Xbox or money. No company is going to ask for your personal information by sending you an email. They are called phishing scams for a reason - don't take the bait!"

Karen, Elementary School Teacher, New York:

Karen spends her days in front of a classroom of eight-, nine- and ten-year-olds, teaching computer skills and warning them of online dangers. Karen wanted to participate in the S.P.A.M. Experiment not only because she's a frequent online shopper that leads to more spam than she'd like, but also because she would like her fifth grade pupils to learn something from her experiences. She wants to make them more aware of the darker side of the Web.

"The main reason I came into this project was to see how bad spam really is, to find out if it is just dangerous or merely a nuisance, and to learn some ins and outs that I can share with my students. They are going to live in a totally different world than the one in which I grew up. At their young ages, most of them already have some kind of computer access at home. I am sure that as they enter middle school and high school, the notebook computer will replace the old pen and paper for the most part. If I am able to make them just a little bit more savvy by sharing what I have learned - then they will be smarter computer users and this will definitely be worth everything I've done in these past 30 days."

Katya, Psychology Graduate Student, Chicago:

As a psychology grad student in Chicago, Katya is interested in the psychological aspect of spam. She is also interested in how spam is regarded across cultures and by personality types.

"I was more than a little tempted to try to get a free iPod using my ' real' life information, which I suppose shows just how well these things work. I'm sure not all of them are scams, but the same technique can be (and is, I suspect) used by scammers."

Global Spam League Ranking

Participants in the U.S. received markedly more spam than any other nationalities, with almost a quarter (22%) of the total spam being sent to the U.S. participants (23,233 messages), making the U.S. number one in our global spam league.

Three of the American participants landed in the "top 10" list of people who attracted the most spam. Bill came in at number one with 9,160 spam messages, Evan at number seven with 4,224 spam messages, and Katya at number ten with 3,897 spam messages.

The 'Grey Mail' count for the U.S. was 3,792 bringing the total number of emails received by U.S. participants to 27,025.

Week One

In the first week alone, participants in the U.S. received 1,144 spam emails.
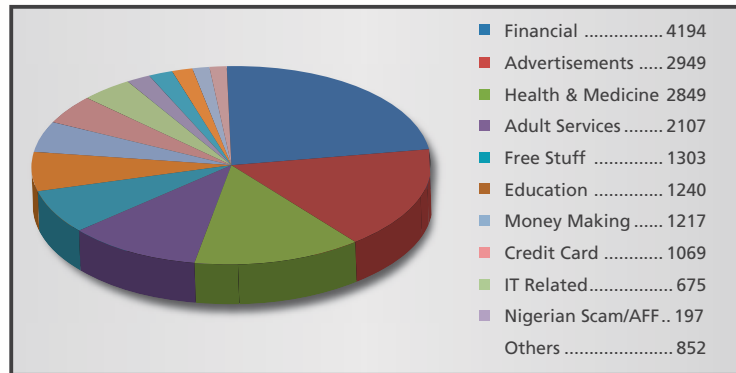
Phishing in the U.S.

Although none of the U.S. participants received any malware, 18% of all the spam emails received in the U.S. were classified as phishing emails, the second highest of our experiment. Emails supposedly from Bank of America were the worst culprits with others from Chase, Citibank, Abbey and American Express also being noted.

The American Winner in the Spam Categories

Consistent with the global average, the most popular category for spam received by the U.S. participants was Finance, followed by Advertisements and Health and Medicine.

Financial	4194
Advertisements	2949
Health & Medicine	2849
Adult Services	2107
Free Stuff	1303
Education	1240
Money Making	1217
Credit Card	1069
IT Related	675
Nigerian Scam/AFF	197
Others	852

Nigerian Scammers Target the U.S.

In the S.P.A.M. Experiment the infamous "Nigerian scam" spam was experienced by every country, but participants in the U.S. received the second highest volume of this type, attracting 20% of all the Nigerian spam received. The U.K. attracted slightly more volume with 23%.

Spam with Adult Content

Spam with adult content was also very popular in the U.S. – as the scammers exploit people's reluctance to buy these kinds of products face-to-face. Participants from the U.S. received the highest level of this type of spam with almost a third (27%) of the global total.

TIPS ON AVOIDING SPAM:

Listed below are a number of suggestions that can help prevent your email address from becoming a target to spammers:

1. Do not post your email address on the Internet.

2. Check to see if your email address is visible to spammers by typing it into a Web search engine such as www.google.com. If your email address is posted to any Web sites or newsgroups, remove it if possible to help reduce how much spam you receive.

3. Many ISPs also offer free spam filtering. If this is available, enable it. Report missed spam to your ISP, as it helps reduce how much spam you and other members of the same ISP receive. If your ISP does not offer spam filtering, use anti-spam software to reduce the amount of spam delivered to your inbox.

4. When filling in Web forms, check the site's privacy policy to ensure it will not be sold or passed on to other companies. There may be a checkbox to opt out of third party mailings. Consider opting out to receive less opt-in email.

5. Never respond to spam. If you reply, even to request removing your email address from the mailing list, you are confirming that your email address is valid and the spam has been successfully delivered to your inbox, not filtered by a spam filter, that you opened the message, read the contents, and responded to the spammer. Lists of confirmed email addresses are more valuable to spammers than unconfirmed lists, and they are frequently bought and sold by spammers.

6. Do not open spam messages wherever possible. Frequently spam messages include "Web beacons" enabling the spammer to determine how many, or which email addresses have received and opened the message. Or use an email client that does not automatically load remote graphic images, such as the most recent versions of Microsoft® Outlook® and Mozilla Thunderbird.

7. Do not click on the links in spam messages, including unsubscribe links. These frequently contain a code that identifies the email address of the recipient, and can confirm the spam has been delivered and that you responded.

8. Never buy any goods from spammers. The spammers rely on very small percentages of people responding to spam and buying goods. If spamming becomes unprofitable and takes lots of effort for little return, spammers have less incentive to continue spamming. Would you risk giving your credit card details to an unknown, unreputable source?

9. Make sure that your anti-virus software is up to date. Many viruses and Trojans scan the hard disk for email addresses to send spam and viruses. Avoid spamming your colleagues by keeping your anti-virus software up to date.

10. Never respond to email requests to validate or confirm any of your account details. Your bank, credit card company, eBay, Paypal, etc., already have your account details, so would not need you to validate them. If you are unsure if a request for personal information from a company is legitimate, contact the company directly or type the Web site URL directly into your browser. Do not click on the links in the email, as they may be links to phishing Web sites.

For further advice please visit:
www.mcafee.com/advice