

High-Tech Persuasion

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Why do people forward e-mail chain letters mindlessly? By investigating the socio-psychological underpinnings of the behavior, this paper elucidates the strategy of those who yearn to manipulate people's minds. The human brain can store unlimited amount of information but such capacity for production and accumulation do not necessarily entail the conscious processing of messages it receives. This characteristic of the human mind serves as the gateway for the notoriety of chain e-mails. Chain e-mails come in various designs but exhibit similar form. They usually contain the following elements: 'copy quota' or the deadline for the task of replication; 'testimonials' regarding success and unfortunate stories; 'waiting time' for the promised benefits and threats; and the 'circumnavigation note' or the length of letters' circulation. The phenomenon can be understood through the principles of systematic and heuristic modes of processing information. People may heed information either at a superficial level (heuristic) or at a more cognitive, analytic manner (systematic). Recipients often react to chain e-mails heuristically. Authors of chain letters and mobile texts induce specific emotions such as fear, anger and disgust to compel their targets to tag along with the "forward message" bandwagon. This reinforces the "you've got nothing to lose anyway" attitude among e-mail readers which can wreak serious havoc on persons and properties. Ultimately, preserving a state of mindfulness is still the best defense against these scheming Web messages.

The latter part of the twentieth century has seen great advances in the way information is accumulated and dispensed. An average person is exposed to a tremendous amount of information, so much that the management of information has become a problem of technologically-endowed contemporary society. From the moment we wake up and prepare for work to the time we go home and take a rest, we are bombarded with tons of information; only a small proportion of which we will process.

There is no doubt that advances in information technology have contributed much to the social development of many countries. Among other things, they have revolutionized the way we work, communicate with other people, establish and maintain relationships and even construe ourselves. However, such capacity for production and accumulation of information has not been associated with any qualitative enhancement in the way we take in and process information. We have been dealing with information the way we are accustomed to for hundreds of years.¹ Take,

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for example, our capacity for attention. We can only pay attention to a limited amount of information in our environment. Attention can be thought of as a flashlight in a dark room; only those area struck by the light will be seen. Analogously, we can only be cognizant of information that we focus our attention on.² Another example is our capacity to retain information for a short period of time, also known as short-term memory or working memory. It has been demonstrated that we can only retain five to nine units of information in our working memory for about twelve seconds. We have difficulty thinking about information that contains more than nine units.³ We also have the tendency to forget them after about twelve seconds.⁴ Anyone who has tried locating a phone number in a telephone directory and holding the information in his/her mind for a few seconds knows the importance of jotting it down because any distraction will result in the loss of information. The same thing can be said about long-term memory. Although we can store an unlimited amount of information in our memory, the truth is only a limited amount may be effectively recalled and the recall is often reconstructive.⁵ Moreover, we prefer to remember meanings and not the actual visual configuration.⁶ When reading a text, most of us can recall the meaning of the text and not the actual wordings or even the characteristics of the fonts and paper used to convey meaning.

A more recent discovery about the way we process information is the distinction between two types or modes of information processing and the various social, motivational and cognitive factors that determine which mode will be triggered in a given situation. These modes have been given different names by various psychologists: mindful versus mindless processing,⁷ systematic versus heuristic processing,⁸ central versus peripheral routes,⁹ and in-depth versus superficial processing.¹⁰ Common to these information processing models is the assumption that most of the time we process information superficially or mindlessly; only when the information is important to us and we have the relevant knowledge to examine it that we bother and engage in-depth or systematic processing.

Adaptiveness is commonly attributed to explain these important characteristics of the human mind. We attend to a limited amount of information, remember a handful of it, and usually process information superficially because there are other things that we want to accomplish that are essential to our survival, wellness and happiness. We can accomplish other things if we operate most of the time in automatic mode.

Likewise, in time of emergencies, a spur of the moment decision with minimal thought can spell the difference between life and death.¹¹

These important principles about human cognition will be the bases of the following social psychological discussion of a specific type of information that are propagated electronically, either by e-mail or through short messages sent and received via mobile phones. This paper explains why most people are predisposed to quickly forward hoax electronic messages. It presents cases in which the mindless distribution of these hoaxes results in harm to others.

Access to Online Computers and Mobile Phones

Originally intended for use in the military, the Internet is now used in business and home settings. It is hard to estimate how many people in the world have access to on-line computers. One estimate calculates that around 605.6 million were on-line in September 2002.¹² A significant number of these people use their on-line time to send and receive messages electronically. For various reasons, people prefer to send messages through e-mails rather than through conventional means of sending letters or snail mail. One factor is the speed of sending and receiving messages. If the network traffic is normal, most messages can be transmitted almost instantaneously. Another reason is the ease by which one can send messages. Since computers have considerable facility like the keyboard, writing down and sending them are almost effortless. E-mails can also be relatively inexpensive since they can be transmitted in large volumes anywhere in the world at very little costs.

There is an estimated 4.5 million or about 7.77 percent of the country's population have access to on-line computers.¹³ A survey found out that most of the Filipino Internet users are women, between the ages of 20 and 34, financially well-off and utilize the e-mail more than any other application available on the Internet.¹⁴ These numbers may not be significant yet but there is a strong reason to believe that the figure will increase exponentially. Computing technology is advancing quickly that almost every week a better processor, motherboard and computer peripherals are being turned out at increasingly lower costs. For example, the much-coveted processor in 1995, Pentium I-100Mhz, has less than five percent of the computing power than the reasonably priced processor Pentium 4-2GHz available in the market today. Hardware costs also drop

dramatically. Memory chips today cost one percent of its costs in 1995 per megabyte. Coupled with a much improved networking technology that allows for the use of greater bandwidth at a cheaper cost, there is every reason to believe that more people in the Philippines will consider on-line computers as an ordinary home appliance.

The case for the access to mobile phones is different. A new way of exchanging information emerged since the short message system (SMS) was popularized in 1994 and made relatively inexpensive in 1998.¹⁵ According to a study commissioned by Siemens,¹⁶ an estimated 10 to 14 million Filipinos own and use cellular phones, majority of them are youths who use their units for sending and receiving text messages. Believed to be the texting capital of the world, around 100 to 300 million text messages are sent and received in the country everyday.¹⁷

The use of the Internet and mobile phones is more popular among the younger generation. In a study conducted on four high schools in Metro Manila and Angeles City, about 77 percent of the students from these schools have used the Internet at least once for research, chatting and sending emails.¹⁸ Most of them reported that they first went online at the age of 13 to 14. Similarly, 56 percent of these students own cellular phones. Females and students from private high schools slightly outnumbered males and public high school students with regards to the ownership of mobile phone units.¹⁹

The impact of text messaging can be witnessed not only in the telecom industry (e.g. it killed off the paging industry and established the lead in the early years of one telecom company) but also in the way we relate to each other through the use of language. It is not unusual nowadays to see a silent group of friends sitting together tinkering with their mobile phone conversing not with their friends around them but with distant people. There have also been interesting stories about text messaging playing important role in the formation and maintenance of social relationship, in the organization of one's daily work activities, in the mobilization of people with similar attitudes and beliefs in political exercises (e.g. mass organizing in Edsa 2 and Edsa 3) and accomplishing illicit activities such as bank heists and kidnapping.²⁰ Likewise, since most cellphone units have a 164-character texting limit, users have devised ingenious ways of combining letters, number and punctuation marks to convey their message, including the

emotion that goes with it (e.g. sending "c u la8r :)") to say see you later with a smile).

Whether by email or SMS, people are becoming more predisposed to utilize electronic messages to keep in touch, inform, persuade and perhaps entertain other people. What makes the use of electronic messages interesting is that messages are generally sent and received in the absence of other related information that facilitate their interpretation. Moreso, when the purpose of the electronic message is to persuade the reader to think, act and feel in a particular way. Conventionally, when someone tries to persuade us, we do not only pay attention to what is being said but also to what is not verbally expressed. In a society like ours, ambiguity is an essential feature of everyday communication. Hence, facial expressions, gestures and the overall social context are important cues to ascertain what is being communicated.²¹ Electronic messages provide a limited context, leaving the recipients of the messages to base their decisions solely from the information the sender sent. As will be shown in the following sections, this impoverished context is the main reason most people mindlessly forward electronic chain e-mails.

Chain letters, their History and their Electronic Propagation

Chain letters are good materials for studying persuasive communication. They are carefully crafted to elicit the specific cognitive, affective and behavioral responses from their recipients. Generally, the end goal is to have the message replicated and sent to a number of recipients.

The free online encyclopedia, Wikipedia, defines a chain letter as "a type of meme, a self-replicating piece of information that uses a human host to distribute copies of itself."²² The word meme was coined by Richard Dawkins in 1976 in a best-selling book, *The Selfish Gene*.²³ The use of the term is accurate since most chain letters attempt to induce the recipient to make a number of copies and pass them to two or more new recipients. Chain letters often include emotionally manipulative stories, get-rich-quick ideas (pyramid schemes?) and exploitative superstitions to threaten the recipient with bad luck if he or she "breaks the chain."²⁴ Like memes, they survive in the same way biological genes do; they have internal structures that ensure their successful propagation.²⁵ They survive not because of the benefits that the readers obtain from reading or sending them but because

of the threats or promises that trigger specific emotional and behavioral reactions on the recipients.

Chain letters became notorious in the United States when they were used by unscrupulous individuals to make money. Most money chain letters, as they circulate in the United States, have the form of a pyramid scheme wherein individuals are instructed to send money to the person at the top of the list and then delete that person's name and include the individual's name at the bottom. The individual is then told to mail the chain letter to a specified number of people who are expected to repeat the entire process, resulting in the individual moving on to the top position, therefore receiving lots of money.²⁶

The origin of chain letters can be traced to ancient Egypt's period. VanArsdale quotes a passage from an ancient Egyptian "Book of that which is in the Underworld" that comes very close to what is now considered to be a chain letter:

The man who shall make a picture of the things which are to the north of the hidden house of the Tuat shall find it of great benefit to him both in heaven and on earth; and he who knows it shall be among the spirits near Ra, and he who recites the words of Isis and Ser shall repulse Apep in Amentet, and he shall have a place on the boat of Ra both in heaven and upon earth. The man who knows not this picture shall never be able to repulse the serpent Neha-hra.²⁶

The chain letters that are well-known today may have descended from the "Letters of Heaven" that were widely circulated during the early Christian era. The letters are considered to have been written by God or Jesus Christ. They are believed to provide protection to its possessor, bring fortune to those who will help replicate and spread them and deliver divine punishment or bad luck to those who will disregard or express disbelief in them.²⁷ Contemporary chain letters are more or less similar in form to the Letters of Heaven except for the following features which appear to be a contribution of chain letter writers in the 20th century: "copy quota" – refers to the minimum number of copies that the recipient is encouraged to distribute; "deadline" for the task; "waiting period" or number of days/hours that must pass before something good or bad will happen; "testimonials" – accounts of fortune or misfortune apparently experienced

by some named and sometimes known individuals; and "circumnavigation" – claims that the chain letter have traveled around the world.

VanArsdale also notes that towards the latter part of the 20th century, chain letters became more varied as their contents became more secular.²⁸ Chain letters were formed according to their underlying motives. Other than luck chain letters, some of the categories that VanArsdale used to organize his collection were: charity chain letter (a letter requesting money or some item to be sent to a fixed address for charitable reasons), chain petitions, money chain letters, exchange chain letters, parodies and chain emails.

When propagated electronically, especially through e-mail, chain letters' persuasive appeal is usually enhanced because the information about the number of people that forwarded the message is often included in the communication process. The list functions as a heuristic cue that connotes something like this: "If all these people represented by these email addresses thought the message was worth sending, it is indeed worth sending. The x number of people could not be wrong." What most people often fail to understand is that the person who sent that message was thinking along the same line as the person that sent the message to the person that sent the message to the person that sent the message, and so on did. Moreover, electronic chain mails are not met with the usual suspicion that an ordinary anonymous paper-based chain letter receive. This is because people usually get them from someone they know and trust (i.e. friends, relatives, ministers and college instructors) which makes the claims of the letter appear credible.

Likewise, electronic chain mails tend to spread like wild fires because they are extremely easy and seemingly inexpensive to send. Unlike in the old days where a recipient must copy by hand or reproduce with a typewriter the original message, the distribution of electronic chain mails are accomplished with just a few keystrokes.

The Structure of Chain E-mails

As was observed, most chain mails have a similar form.²⁹ Usually, the first section contains references to an authority or a credible source. In the old days, when chain mails are relatively harmless and commonly used to spread religious messages, chain letter writers used God, Jesus or His

mother as authority figures. Advancement in science and technology expanded the list of the credible figures. They use extremely powerful people like Bill Gates, corporations such as Globe or Nokia, newspapers and celebrities as references. The inclusion of an authority or celebrity's name in the letter gives a sense of authenticity to the message. People react differently when they received a passage from the Bible or an announcement from a giant software company.

The second section is where the writer tries to induce a particular emotion. Traditional chain mails usually play on people's fear of death. Modern-day ones focus on current attitudes and values such as racism, sexism and material gains.

Instructions on how to avoid death or punishment or how to obtain the promised material gains normally comprise the third section. This is where the writer tells a person to distribute the same message to 10 people within 24 hours lest he suffers the punishment of death. For instance, one e-mail has this message, "email this message to as many friends as you can and for each email address that you sent this to you will receive \$250."

The fourth and final section of the chain mail contains the testimonials which further strengthen the appeal of the message. Here is where you can read that a person died because he/she ignored the message. For instance, it was claimed that a certain lawyer received a check of \$115,000 after participating in Microsoft's e-mail testing.

Short chain letters propagated through mobile phones contain as many important information as those sent through emails. The authority figure, promised reward, instructions for obtaining the reward and testimonials are rolled into one statement consisting of 164 characters.

"A season greeting from GLOBE! Send this to 10 of ur globe-subscriber friends & u'll receive free P300 on ur acct. TOTOO ITO, nagawa ko na ito! SENDER: 211"

"Avoid Jolybee burgers & steak. 1 exec fr JolyB resigned & confirmed dey r using contaminated meat fr. Europe!! Pls pass 2 ur luv ones."

Social Psychological Reactions to Electronic Chain Messages

To understand why people willingly and voluntarily propagate electronic chain messages, one must consider how an individual reacts to such stimuli. Individuals who immediately forward them are probably convinced by what they have read. Some, although quite suspicious, exhibit the "you've got nothing to lose anyway" attitude. Others may have grown tired of them and would just ignore and delete them the moment they reached the person's e-mail inbox.

From the number of electronic chain messages and urban legend stories received and catalogued by the author, it appears that a considerable number of people either believe in these messages or at least feel that they have nothing to lose by propagating these messages. A number of websites such as www.breakthechain.org, www.truthorfiction.org, www.snopes.com, and www.vmyths.com devote substantial resources in analyzing and indexing electronic memes, with a hope that by providing information critical to these stories people will be better informed, more discerning and more cautious before hitting the forward button.

The ease and willingness to distribute electronic messages may have something to do with the way the human mind attends to incoming pieces of information. A recent social psychological analysis of the phenomenon called persuasion reveals an interesting fact, which at hindsight may appear obvious, about human information processing. The findings of these studies strongly suggest that people may attend to information either at a superficial level, focusing on mental shortcuts that allow for quick judgments, or at a more in-depth level, with some sort of an algorithm that takes more effort and time. While there may still be disagreements as to whether these modes are activated exclusively or simultaneously³⁰, it seems that there is already a consensus that majority of people process information superficially. They only engage in effortful and systematic processing under specific circumstances and with a limited set of stimuli.

Some people may not accept the notion of people as "cognitive" because it goes against our belief about human rationality. We put so much value on being rational that we find it difficult to realize that we function on automatic mode most of the time, rarely giving conscious thought to many things that we do. Robert Ornstein supports this view of human consciousness, saying that "we don't search out all alternatives in an

attempt to gain knowledge; instead we use a few simple strategies and analyze everything this way.³¹ If we always stop and consider the bases for our actions we do each day (such as which pair of shoes to wear, route to take to reach the office or school and whether to make a right or left turn while walking or driving and what to eat), we could conclude that indeed, there has never been, nor will there ever be enough time to be rational. This is true when we make decisions on matters that are highly relevant to us; we do not have the time and the energy to exhaust all the alternatives, that is, to weigh the pros and cons of each option, before we make our decision.

Although we can never be completely "rational" about everything all the time, we can focus our attention on a very limited set of stimuli and give them in-depth or more effortful thought. With regards to electronic chain mails, the author contends that the chain would have been broken early on had the recipients of these messages engaged in in-depth processing of information. Most of the information they need in confirming the veracity of the information are embedded in the message itself. They can be easily and quickly determined given the current level of technology. In the light of existing research on persuasion, this paper will present in the following sections the probable reasons for attending and the consequences of not attending to these messages "rationally".

A Model of Persuasion for Electronic Messages

According to the persuasion model developed by Petty and Cacioppo,³² and Chaiken,³³ we are capable of processing information using two modes: the systematic and the heuristic. For instance, when we attentively listen to speakers and logically evaluate their arguments such that the opinions we form afterwards are based on these, we are probably processing the message systematically or analytically. In this mode, we consciously and carefully look for inconsistencies in the speaker's messages. We evaluate their claims based on their arguments embedded in the speech. On the other hand, when we process the information heuristically, we focus only on the characteristics of the speakers such as their appearance, manner of speaking, apparent credibility or background, use of lengthy and obscure technical information such that the opinions we form are based primarily on these superficial impressions. In this mode, the concern is less about the soundness of the arguments but more on the ability to form snap judgments about the message. One good example is

the bases for people's voting behavior. Some people vote for a candidate because they have understood and evaluated what a candidate is saying or have said in the past. Other people, on the other hand, vote for candidates who are physically attractive or those who delivered the most flawless speech.

We appear to engage in these two modes of processing information depending on our level of motivation. In most cases, our motivation to process systematically is influenced by the relevance of the message to us. We have the tendency not to give it much thought and use various mental shortcuts when forming a decision if the issue at hand is perceived to be trivial.³⁴ There are also individual differences with regards to our propensity to engage in systematic processing. Some people enjoy deep thinking while some only do it when extremely necessary.³⁵ Similarly, it appears that the kind of mental processes required for deep, systematic thinking can be voluntarily controlled and developed as a habit.³⁶

However, even if our desire to engage in systematic processing is particularly high, other factors such as ability, possession of relevant knowledge and the opportunity to concentrate, severely constrain us.³⁷ When there are too many information to attend to, systematic processing suffers and inhibited because the mind's desire to engage is high. This can be exacerbated by the presence of complex or technical information which the recipients are not familiar with and may fail to properly evaluate. Recipients who have the intellectual ability as well as the relevant knowledge to evaluate systematically may also be hindered by external situations (e.g. loud noise) or internal factors (e.g. strong favorable or unfavorable emotions).

This model of persuasion can explain the ease and apparent willingness of people to forward electronic messages. Most of these messages are carefully crafted to activate heuristic processing, the mode of thinking that will increase the probability of the reproduction of the messages. It explains very well the "you've got nothing to lose anyway" attitude. For example, the text messages which proliferated in 2001 claimed that two giant mobile companies in the country are giving away P250 or P500 worth of airtime credit. In one variant of the text message, it claimed that,

"Smart 20th anniversary offer: Send this to 10 smart users and get free P500 load. Check balance inquiry tomorrow at 1515."³⁸

Had the mobile phone users, who sent these messages to ten other people analyzed the message carefully, they would have saved themselves a lot of trouble, not to mention the airtime credits they have wasted for distributing the message. Had they thought more carefully, they would have discerned that the claim was doubtful since the company is a newcomer in the country and could not have celebrated its 20th anniversary.³⁹ The same is true for e-mail messages claiming that a giant software company is testing its email services and that anybody who will forward the message to as many people as they can will be rewarded with money. The information recipients needed to evaluate the accuracy of the claim is in the message itself. They acted as if there was no strong reason for engaging in deep and careful processing because there was nothing much to lose. This explains why, at times, people of high credibility and intelligence, those whom others think would not easily fall for these dubious claims, also willingly send out bogus e-mail messages.

Even when recipients of the electronic message are strongly motivated to process systematically, capacity factors hinder them. The message may contain references to technical details that are beyond their comprehension. This usually happens computer virus hoaxes. They spread more quickly than computer viruses because they feed primarily on people's fear and relative lack of knowledge on how to deal with them. The messages may also contain depiction of situations that elicit strong negative emotions which could short-circuit deliberation. Strong emotions, such as fear, generally compel us to act and not to think. As Ornstein said, emotions bypass conscious controls for good reasons: "we don't have to think before we run".⁴⁰

Persuasion Heuristics in Electronic Messages

Many of the chain e-mails' strategies for inhibiting mindful processing follow a particular pattern. They can be related to the persuasion heuristics already identified above. Of the many persuasion heuristics that influence us when we are not processing systematically, none has been more potent than the "source" heuristics. The "source" heuristic is generally a useful piece of information. Since we cannot be experts in all fields, we often depend on other credible sources for reliable knowledge. Students, for

instance, depend on their professors while professors consult other experts and relevant scholarly texts for reliable information. Included in the cues that inform us of the trustworthiness of the source are information about the source's designation and background. Mere mention of a person's position increases the apparent trustworthiness of messages. Chain letter writers know very well that we react differently when we are told, for example in an e-mail's introduction, that the writer is an attorney who knows the law, or that the message is from a high ranking officer of a big company or a country who can very well deliver what was promised. For example,

"I'm an attorney, and I know the law. This thing is for real. Rest assured AOL and Intel will follow through with their promises for fear of facing a multimillion dollar class action suit similar to the one filed by PepsiCo against General Electric not too long ago." (The Fabled AOL/Intel Merger" from www.breakthechain.org)

I am Oliver Kabila from the Democratic Republic of Congo Zire, son of late Laurent M. Kabila, the former President and Commander in Chief of the Armed Forces Republic of Congo Zire. Presently taking refuge here in Accra Ghana (West Africa) after the sudden demise of my father, following his assassination by his personal body guard on the 16th January 2001. I refer you to the TIME magazine cover story of the 12th of February. ("An Offer you can't refuse" from www.breakthechain.org)

Dear Friends, Please do not take this for a junk letter. Bill Gates is sharing his fortune. If you ignore this you will repent later. Microsoft and AOL are now the largest Internet companies and in an effort to make sure that Internet Explorer remains the most widely used program, Microsoft and AOL are running an e-mail beta test. When you forward this e-mail to friends, Microsoft can and will track it (if you are a Microsoft Windows user) for a two week time period. ("Share Microsoft's Millions?" from www.breakthechain.org)

Often, for chain e-mails to be credible, they need to come from someone we know and trust such as our friends. The prevailing line of thinking can follow like this: "The message came from a person I know very well. I trust this person and I know him/her to be a reliable in the past; therefore the message must be reliable." The problem is that the sender was also thinking of the same thing when he/she first received the

message. With forwarded e-mail messages, the previous list of recipients is preserved in the body of the message, thus providing more source reliability "cues" for future recipients. Making the matters worse are instances when well-meaning and highly credible, but nevertheless superficial processors, affix their name, title, and institutional affiliation to electronic chain messages they receive before forwarding them to their colleagues who may also not have the time or adequate knowledge to systematically process the message.

Another cue that a superficial processor of communication may attend to are the heuristics or characteristics of the message being communicated. Included in this set of cues are the length and language of the message. Generally, the length of the message has a direct relationship to the perception that is valid and credible.⁴¹ Likewise, the more technical or scientific the presentation appears, the more it will be considered reliable.⁴² Virus hoaxes are generally of this kind, like this one:

Subject: RE: WORST EVER VIRUS as announced by CNN

A new virus has just been discovered that has been classified by Microsoft as the most destructive ever. This virus was discovered yesterday afternoon by McAfee and no vaccine has yet been developed. This virus simply destroys Sector Zero from the hard disk, where vital information for its functioning are stored. This virus acts in the following manner:

It sends itself automatically to all contacts on your list with the title "A Virtual Card for You." As soon as the supposed virtual card is opened, the computer freezes so that the user has to reboot. When The ctrl+alt+del keys or the reset button are pressed, the virus ctrl+alt+destroys Sector Zero, thus permanently destroying the hard disk. Yesterday in just a few Hours this virus caused panic in New York, according to news broadcast by CNN. This alert was received by an employee of Microsoft itself. So don't open any mail with subject: "A Virtual Card for You." As soon as you get the mail, delete it. (from www.breakthechain.org).

One e-mail message with the words, "TOXIC CHEMICAL ALERT!!" in the subject heading demonstrates how giving an air of scientific objectivity to a message enhances its persuasibility. In this e-mail message the writer

expounds on the dangers of a colorless, odorless and tasteless compound that has caused among other things, excessive sweating and urination, bloated feeling, nausea, vomiting and body electrolyte imbalance. None of the claims made are really inaccurate, it is just that the chemical compound being referred to is dihydrogen monoxide, or what is more popularly known as H_2O or water. The e-mail appears to be written as a joke but some recipients probably took it for real and spread the word. We now know how convincing this message is because a student, named Nathan Zohner, won first prize at the Great Idaho Falls Science Fair on 26 April 1997 for doing a survey regarding the ban on the use of dihydrogen monoxide. When Zohner asked 50 students from his school whether they would agree to a ban on this chemical compound which presumably causes a number possible harmful effects both on people and the environment, 43 said yes, six were undecided and only one correctly identified the compound to be water.⁴³ In another confirmation of the use of jargon's effectiveness in persuasion, one business lobbyist in the US sent a letter to a group of people with the following message:⁴⁴

"Dear Mr. Smith:

You have been identified as a person who cares deeply about the future of our fragile planet, the health of our children and the quality of our nation's leadership. If we are right, we need your help, and we need it immediately. As you have undoubtedly read, dihydrogen oxide has been found to be a major threat to the environment and to human and animal health. Here are the facts:

In 1991, the most recent year for which statistics are available, 4,100 Americans— many of them under the age of 10— died from excessive dosages of dihydrogen oxide commonly found in many homes and recreation sites. Our polluted lakes, rivers and oceans are known to contain vast quantities of dihydrogen oxide. On this, there is no controversy! Contaminated ground water? Same tragic situation. In California, Missouri and Georgia families have lost their homes to dihydrogen oxide contamination. In some applications, dihydrogen oxide is a major contributor to injuries from falls. In other applications dihydrogen oxide is a major cause of burns.

Why does America endure this wasteful destruction of our planet, our children and ourselves? Greed. Simple greed and stupidity. We need

your help now. In the next 24 hours, we need you to demand an end to the production and use of dihydrogen oxide. Please write: The Dihydrogen Oxide Institute, P.O. Box 7178, Washington, D.C. 20044-7178. On behalf of our future generations, I thank you.

Sincerely,

John Alan Waterman (Stop the Silent Killer Foundation)

Some of the responses that the lobbyist received through the rented mail box indicated in the mail are:

"What is going on here? You people must really believe the world will come to an end in the year 2,000. Why else would you be poisoning the planet and its inhabitants with dihydrogen oxide?"

"Stop the production of dihydrogen oxide! Dihydrogen oxide has been found to be a major threat to the environment and to human and animal health, and yet you continue to produce it?!"

Inducing specific emotions, either positive or negative, is also effective in influencing people's decision to distribute electronic chain mails. The effects of positive emotions are usually explained through classical conditioning. If a person feels good about the message, he is more likely to make more positive associations with its content and will find the messages agreeable. In addition to this, it was discovered that when people are experiencing positive emotions, they are less likely to engage in in-depth or systematic thinking⁴⁵ and are consequently more susceptible to making snap judgments based on persuasion heuristics.⁴⁶

Negative emotions such as fear, anger and disgusts, are powerful since they usually prompt people to do something immediately. When a person is angry or scared his/her first tendency is not think but to act. Ornstein contends that "negative emotions have a different information value because the number of threats is much greater than the pleasures."⁴⁷ He emphasized the adaptive role of emotions, particularly negative ones, in guiding the mind through non-rational means toward specific directions that are usually adaptive.

Whenever you buy a can of coke or whatever please make sure that you wash the top with running water and soap or if not available drink with a straw.

A family friend's friend died after drinking a can of soda! Apparently, she didn't clean the top before drinking from the can. The top was encrusted with dried rat's urine which is toxic and obviously lethal!!!! Canned drinks and other food stuff are stored in warehouses and containers that are usually infested with rodents and then get transported to the retail outlets without being properly cleaned.

So you know what to do from now on folks. Please forward this message to the people you care about... (from www.snopes.com)

More recent experimental studies involving the actual use of chain letters from several web sites indicate that negative emotions exert powerful influences. In a series of experiments, Heath, Bell & Sternberg⁴⁸ show that stories that elicit disgusts (e.g. contact with bodily substances such as feces, urine or ejaculate; cutting or piercing of the skin; ingestion of inappropriate substances such as rat urine in soft drinks) are the ones that are more likely to be selected for distribution. Furthermore, these researchers were able to demonstrate that the more intense feelings of disgust evoked, the greater the possibility that the message will be distributed. In the top ten web sites they examined, the greater the story contains the disgust motifs they identified, the higher the probability that it will be included in these web sites. Nevertheless, while the recipients are not in actual and immediate danger of experiencing what they are reading about, they vicariously feel the status of the victims depicted in the stories. They feel the compulsion to act and help other people avoid the disgusting situation. This act may appear as a form of indirect escape or avoidance for the self.

Aside from disgust, fear is also a common element in circulating electronic chain letters. It is the main component of hoax virus warnings that caution users about the irreparable damage to their computer hardware once the virus is activated. In many cases, the information necessary to discern whether the warning is a hoax is included in the message itself. They can be easily recognized through the claims, which may or may not be appreciated by the reader. Nevertheless, in light of the ease nowadays of verifying through Internet sites, whether a computer virus

is real or not, it is interesting to see people who are willing to risk embarrassment just to protect their computer systems.

Fear has proven most effective in persuasion when explicit instructions regarding specific behaviors that must be carried out are included in the message.⁴⁹ Fear, at certain levels, raises people's motivation to pay attention to the message and follow its recommendations. Electronic chain mails that capitalize on fear are usually followed by instructions on what to do as well as requests for sending the message to as many people as possible.

What Have We Got to Lose?

Having discussed the possible reasons why many people are predisposed to mindlessly forward messages, an important question needs to be asked: Do these mindless forwarding of text and email messages pose any real danger at all?

In 2001 July 1, a writer from the largest circulation newspaper in the country published an article entitled, "U.S. Talk Radio Host Insults Filipinos on Internet," in the entertainment page of its Sunday edition issue. The article talks about a hate e-mail supposedly written by a radio talk show host in the US. The author mentioned that the e-mail came from another news writer who forwarded it with the subject, "Please pass this on to every Filipino you know." In the news article, the author reproduced verbatim the supposedly racist remarks in the e-mail that would certainly elicit anger among Filipino readers. At the end of the article the author included the US radio talk show host's email address, serving as an indirect invitation to the readers to retaliate.⁵⁰ However, the major problem with this article was that the hate e-mail was not written by the radio talk show host named in the news story. This resulted to the newspaper's settlement of the case with the lawyers of the radio host. After three days, the newspaper published an apology stating that it regrets failing to investigate the source of the e-mail carefully.⁵¹ However, the damage has already been done. The radio host claimed that because of the publication of his e-mail address in the newspaper, he has received numerous e-mails and death threats forcing him to be off the air for a week.⁵²

It may seem difficult to understand why an experienced news writer from a highly reputable newspaper fail to exercise critical appraisal of

information and made such an embarrassing and irresponsible mistake. If the journalist had access to the Internet, she could have checked, in a nick of time, if the email were fraudulent or not. She was willing to print the host's email address; she could have at least contacted him to check. In the context of the persuasion model described above, it appears that the hate e-mail infuriated the news writer who felt obligated to pass it on. In all likelihood, the e-mail message is still making rounds in different parts of the world in some of the e-mail inboxes of those who choose to react first before thinking.

This is one example of how electronic chain mails may be propagated to cause harm on an intended target. Many of the fraudulent stories circulating in the Net as urban legends appear harmless, but a number can cause harm to certain individuals or entities. When superficial processors forward these malicious messages to other people whom they trust and who trust them, they unwittingly become accomplices in an ingenious attempt to harm another person. It is scary to think how fast and easy a good reputation can be destroyed by a few lines of carefully crafted texts released in the Information Superhighway.

The other party put at a disadvantaged position in this mindless forwarding of chain e-mails is the end-users themselves. Whenever the messages immediately make us feel good, bad or disgusted, they could make us susceptible to manipulative messages. They numb our discernment. Conversely, cultivating a state of mindfulness through constant preoccupation with change and of concern with alternative explanations, and multiple contexts⁵³ may provide some measures of protection from becoming prey to others' malicious influence tactics.⁵⁴

Lastly, chain e-mails translate to actual financial losses in terms of bandwidth and network resources. Similar to spam, electronic chain letters are messages we will not probably read had they not been sent to us by people we know and trust. The most irksome thing is that the recipients of these electronic chain letters are the ones shouldering the costs. They shell out money to pay for connection charges. Internet service providers increase costs from time to time as users request for bigger storage space and faster network equipment to cope with the ever increasing network traffic caused by spam and chain e-mails. No current estimates exist for costs brought about by chain e-mails. Nonetheless, we can deduce from the cost estimates made on spam mailing as a whole. One study puts the

cost of spam mailing to about 12 billion dollars; large portion of it went to lost productivity, purchasing of more powerful servers and requests for higher bandwidth.⁵⁵

Even more irritating is the fact that message recipients are helpless when it comes to e-mail spamming. Current pieces of legislation are only enforced when the chain e-mail promotes criminal activities (e.g. pyramid schemes or selling illegal merchandises). Interestingly, it is unlawful in Botswana to send or forward chain e-mails even if no money is involved. Anybody caught sending a document "addressed by one person to another person suggesting to the person to whom it is addressed that he should send letters having the same purport to a number of other persons," will be liable to a fine of \$30 or six months in jail or both.⁵⁶ In the Philippines, RA 8792 or the Philippine Electronic Commerce Act of 2000, which seeks to establish the legal validity of electronic documents and the aggressive promotion of information technology in the country, does not contain any provisions against spam in general or on chain e-mails in particular.

Summary and Conclusion

Chain letters have come a long way from the religious text messages written in scrolls to the contemporary e-mail messages and the 160-character SMS sent through mobile phones. The theme of these messages may have undergone changes as secular concerns were incorporated in their meanings. Their underlying structure, nevertheless, remained virtually unchanged. True to their form as self-replicating pieces of information, these electronic chain letters prey primarily on people's emotions, negative and otherwise, motivating them to act immediately on the messages' bidding without in-depth processing. While some messages appear harmless, even inspirational at times, there are some that are malicious and fraudulent.⁵⁷ Even those that are skillfully crafted as jokes can have serious consequences when their recipients fail to grasp their real meaning. In addition, the mindless forwarding of chain e-mails clogs up the Internet causing huge losses in productivity and actual cash expenditures. In the ultimate analysis, many do not realize that all these costs have to be borne by the users themselves.

For the most part, e-mail and text messaging are efficient and reliable ways of sending and receiving information. There is no doubt that they have been a boon for many societies such as the Philippines. They have

influenced various aspects of our modern social life from the way we create and maintain social relationships to the way we conduct business and carry out political activities. The facilitative role they play in our social functions accounts for their immense impact on our lives⁵⁸. Making new friends and maintaining contact with old ones, keeping in touch with relatives from distant places, organizing business meetings and mobilizing like-minded individuals for a political rally are all accomplished easier and faster with e-mail and text messaging. Even kidnapping, bank heists and various scams are facilitated by these technologies. Aside from instituting national legislation aimed to penalize the forwarding of electronic chain mails, diligent policing by system administrators of their electronic distribution systems and setting-up better filters in our mail servers, mindfulness remains our best protection against unscrupulous entities which use the Internet to manipulate people's minds. ❁

Endnotes

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- 2 Becklen and Cervone, 1983.
- 3 Miller, 1956.
- 4 Peterson and Peterson, 1959.
- 5 Loftus and Loftus, 1980.
- 6 Brewer, 1977; Bousefield, 1935 as cited in Smith, 1998.
- 7 Langer, 2000.
- 8 Chaiken, 1980.
- 9 Petty and Cacioppo, 1984.
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- 17 Mapa, 2002, Casanova and Amurao, 2002, Lucas and Dancel, 2002.
- 18 Natividad, et al., 2003.
- 19 Pertierra et al., 2002.
- 20 Maggay, 1999.
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- 35 Cacioppo and Petty, 1982.
- 36 Langer, 2000; Langer, 1990.
- 37 Smith and Mackie, 2000.
- 38 "Believing...", 2001.
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- 41 Langer, Blank & Chanowitz 1978; Petty and Cacioppo, 1984.
- 42 Chaiken, 1980.
- 43 Mikkelson, 1999.
- 44 Tirschwell, 1995.
- 45 Isen, 1987.
- 46 Bless, et al. 1996.
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- 48 Heath, Bell and Sternberg, 2001.
- 49 Leventhal et al., 1967.
- 50 Salterio, July 1, 2001.
- 51 Salterio, July 3, 2001.
- 52 Bell, 2001.
- 53 Langer, 2000.
- 54 Pollock et al., 1998.
- 55 Swartz, 2003.
- 56 Mosheti, 1997.
- 57 Longid and Robles, 1998; Wilcox, 1998.
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