

Does the Internet Protect or Invade Privacy?

Researched & Written by: Evelyn Ayinde

DOES THE INTERNET PROTECT OR AFFECT PRIVACY?

¹The Internet is a global network of millions of smaller computer networks linked by terrestrial and extra terrestrial communications channels. The most common use of the Internet is for sending and receiving international electronic mail (E-mail).

Hence, the Internet can be referred to as the largest network of networks; it is a concept, which continues to grow beyond known boundaries thus bringing about extensive information from across the globe. It has successfully breach communication gaps, which benefits individuals as well as organisations alike.

²“The Internet (the net) is a rapidly growing global web of thousands of business, educational and research networks connecting millions of computers and their users in more than 100 countries to each other”.

The Internet technology possess a great deal of capabilities which facilitates the usage of internet in achieving set tasks efficiently and effectively to a required level, hence it is now more or less part of everyday business operations as well as enhancing individuals' needs. ³Major Internet capabilities such as:

- E-Mail – Refers to messaging from one person to another and also sharing of documents.
- Usenet Newsgroups – Discussion groups via electronic bulletin boards where people share information and ideas on set topics.
- LISTSERV's – Discussion groups with the aid of e-mail mailing list servers.
- Chatting – Basically refers to interactive conversations.
- Telnet – Concept of logging on to one computer and working on another.
- FTP – Involves the transferring of files from computer to computer.
- Gophers – A tool, which enable users to locate information stored on Internet Servers using a hierarchy of menus.
- World Wide Web – Involves retrieving, formatting and displaying information (e.g. text, audio, graphics and Video) with the aid of hypertext links.

¹ Ref: Business Information Technology, System Theory and Practice By Geoffery Elliot and Susan Starkings

² Introduction to Information System, 8th edition By: James A. O'Brien

³ Ref: Management Information System, 6th Edition, By Kenneth C. Laudon and Jane P. Laudon

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The Internet provides a whole new world of information on just about anything to many individuals thus, providing a platform whereby people from around the globe can enjoy the sharing of ideas, information be it educational or purely for enjoyment via an open network.

BENEFITS TO ORGANISATIONS

The benefits of the Internet to organisations today can be said to be infinite depending on how the concept is approached and implemented by a given organisation in that, the Internet is fast becoming the major platform for electronic commerce and electronic business.

In addition, the use of the Internet is vital to businesses nowadays in that, it can be easily implemented and it tends to be cost effective in connecting people from various places all over the world.

For instance, an individual with an Internet address will be able to log on to a computer and connect with other computers on a network regardless of location, computer type or Operating system.

⁴“By using Internet Technology, organisations can reduce communications and transaction costs, enhance coordination and collaboration and accelerate the distribution of knowledge”.

The Internet has become a necessity in most workplaces and a fixture in most schools and libraries in that, the Internet has allowed for individuals and groups to create new communities for discussion and debate, grass roots activism and social organisation, artistic expression and consumer protection.

The growth of the Internet Technology has its own shortcomings in that as Technology continues to change, it brings about a great deal of question marks in relation to the viability of the Internet phenomenon.

In relation to an ethical principle (i.e. No Free Lunch) everything you do has a cost hence, the vast benefits and opportunities brought about by the Internet Technology comes with a price tag thus, bringing about the issue of privacy and the Internet i.e.

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COMPUTER SECURITY

Due to the level of threats to data and information conveyed via the Internet i.e. threats such as data leakage, data theft, data destruction (deliberate or by system failure), manipulation of data and also problems of viruses, fraud, hacking and so on. Computer security is seen as a vital tool in successfully communicating and sharing information via the Internet.

⁴ Ref: Management Information System, 6th Edition, By Kenneth and Jane Laudon (page 299)

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A large public network like the Internet is highly vulnerable to breach in security in that, it is virtually open to anyone.

Furthermore, the Internet is so massive that when abuses occur, they can have an enormously widespread impact e.g. The Love Bug Virus.

Primary reasons why computer systems are vulnerable to security breaches are as follows;

- Intentional breach by users.
- Increased system complexity i.e. computer systems are becoming highly complex and difficult to manage
- Increased Network Vulnerabilities – Networks have become increasingly complex and difficult to manage.
- More Skilled Hackers i.e. they are better educated and technically skilled making it easier for them to break into computer systems.
- The law seems to chase the crimes i.e. due to frequent advancement in technology there are no set laws to guard against some of the new computer crimes.

Vulnerability of Internet based Systems to breach in security has resulted in a growing concern over the issue of privacy i.e. in relation to the level of protection or lack of protection based on information provided by users of the Internet.

SECURITY AND PRIVACY

Privacy is supposed to be a fundamental human right but the continual advancement of technology (Internet power to be precise) puts this right under severe threat.

The issue of laws always trailing technology that provides for people to abuse the use of technology as they please, without seriously getting dealt with, might be one of the reasons for this.

It is essential to note that people are conducting more and more of their everyday life online i.e. people tend to store an increasing amount of sensitive data on networks via technology which is capable of painting a full profile of their personal lives.

Even though this is the current trend, the price tag for this technology should not include a loss of privacy in that as established above, privacy is meant to be a fundamental human right, hence protection of personal privacy is an important characteristic of national freedom.

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⁵“Everyday, Americans use the Internet to access and transfer vast amounts of private data. Financial statements, medical records and information about children – once kept securely in a home or office – now travel through the network. Electronic mail, online publishing and shopping habits, business transactions and web surfing profiles can reveal detailed blueprints of people’s lives. And as more and more of our lives are conducted online and more and more personal information is transmitted and stored electronically, the result has been a massive increase in the amount of sensitive data available to government investigators”

The above statement stresses the fact that a vast amount of data is being dealt with online on a daily basis thus resulting in even greater personal information made available unintentionally.

This raises questions such as should people have say on data kept on their behalf and how it is used?

To what extent does information kept affect or benefit individuals?

For example, Database America and Yahoo Inc included unlisted phone numbers and addresses for people such as police officers, judges and prosecutors who feared their lives would be in danger if malefactors found out where they lived.

Ref: “Web on Privacy Alert” Computer World, April 29, 1996 By Mitch Wagner.

This situation shows the implication of misusing data, also the fact that a person can find out a lot about you with very little effort seems scary, hence it is deemed vital that people are informed about how information held about them is to be used.

This issue raises concerns and fear that people without the authority to use the information could use private information for purposes other than for which it was intended.

⁶“Information is said to be equated to power and influence, therefore any society should have a number of legal and statutory checks and balances in place to prevent the misuse of information”.

Computer Security along with privacy issues have become big news, in the courtroom, the boardroom with policy makers and lawmakers.

Buying On The Internet

The idea of purchasing goods over the Internet seems like an easy and efficient way to obtain required goods, however due to the vulnerability of the Internet Technology it can also lead to unnecessary headache in that, privacy can be easily violated.

For instance, there has been a growing concern in relation to the usage of credit cards over the Internet the reason being that hackers are known to have accessed credit card details for fraudulent acts.

⁵ **Testimony of Alan B. Davidson, Centre of Democracy and Technology**

<http://www.cdt.org/testimony/000724davidson.shtml> (July 24 2000)

⁶ Ref: Business Information Technology, Systems, Theory and Practice, By Geoffrey Elliot and Susan Starkings

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Although with the growing concerns comes an improvement in methods used in safeguarding the usage of credit cards, hence it can be argued that organisations are more aware and much more prepared for any eventualities than before.

Furthermore, there was a report recently whereby there was a breach in security on the Barclays Banking Online Services i.e. passwords of users were made visible due to some unforeseen circumstances, thus referring back to the frailty of the Internet Technology.

Effect Of Data Mining Techniques

Data Mining basically refers to an analysis of large pools of data to find patterns and rules that can be used to guide decision-making and predict future behaviour.

The Internet allows for vast amounts of information held on a particular individual to be combined via sophisticated data mining software tools.

This practice has both an inverse and adverse effect on privacy for example; data mining can be used to an individual's advantage i.e. locating an individual with specific interests or to determine the interest of a specific group of customers. And using the available information to better serve the customer (providing a better customer service).

On the other hand data mining can serve as an obstruction in achieving a set task in that advances in data mining techniques heighten ethical concerns because it enables business organisations to find out much detailed personal information about individuals which could then be used to the individual's disadvantage.

For instance, an individual seeking a life insurance might be refused due to a recent increase in the person's interest in terminal disease (lending various books on terminal disease via the library) in that, the insurance company could have used data mining technology in obtaining private information about the prospective client hence, making an unjust decision.

Issue of Electronic Mail (E-mail)

E-mail basically refers to a computer-to-computer exchange of text-based messages – it is seen as a cost effective alternative to using telephone for business communications.

E-mail makes it possible for text-based messages to be sent between computers that are networked.

Researchers use this facility to share ideas, information, even documents.

Collaborative research and/or projects are also made possible via the Internet even if the users are miles apart.

Given by all the capability and essential in nature of this facility, again raises an ethical question – Is monitoring employees using email, the Internet and other network facilities ethical?

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Monitoring an employee's email can be seen purely as an invasion of privacy in that, an email may be intended for a specific individual regarding an important issue which is meant to be confidential. However if intercepted by an employer, it obviously defeats the purpose of the mail for example, it would be inconceivable to learn that our postal mails are treated in this fashion, hence it makes more sense for employers to treat emails with the same respect.

Although lots of individual view emails monitoring as an unethical and even an illegal invasion of privacy, various organisations consider it to be legitimate. The reason being that the Internet can be easily manipulated i.e. an employee using the company's facilities not only for personal gains but furthermore for illegal activities could seriously damage the company's reputation which may hurt the organisation much more in the future.

Internet Cookies

Like E-mail monitoring, Internet cookies can be seen as a serious violation of privacy, Internet cookies refers to tools used in monitoring an individuals activities on the Internet i.e. it allows organisations to determine an individuals visits to web sites which in the long run affects privacy because it is deposited on people's computers by interested web sites without their knowledge and authorization thus invading privacy.

⁷“Access to a person's electronic data will likely provide a more complete window into their actions, relationships and thought”

Given this statement an individuals' electronic data needs to be protected and respected accordingly in that, it basically gives an insight into peoples lives.

Protection of Data and upholding users Rights

There are various ways in which user privacy can be protected, some of which are as follows;

Encryption – basically refers to coding of information so as to prevent the message to be read or accessed without authorization.

This is especially useful to shield messages on the Internet and other public network due to its vulnerability to misuse.

Biometrics Controls – refers to an area of computer security, which aims at making an individual unique via adopting security measures aided by computer devices, which measure physical traits that make an individual unique e.g. voice verification, fingerprints, hand geometry, signature dynamics, keystroke analysis, retina scanning, face recognition and generic pattern analysis.

This sort of control will aid accessing data meant for a specific person, hence

⁷ Ref: Carnivore's Challenge to Privacy and Security Online, Testimony of Alan B. Davidson – <http://www.cdt.org>

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protecting confidentiality of given information.

Fire Wall – refers to another method for control and security of telecommunication networks. A firewall is a computer system that is designed to protect computer networks from intrusion, thus protecting data from invasion of privacy.

The Firewall identifies names, Internet protocol addresses, applications and other characteristics of incoming traffic.

⁸“Terrorism poses a serious threat, requiring a serious government response. However, all too often the terrorism issue has been used as the justification for eroding civil liberties. In recent years, communications technologies and the Internet have become the increasing focus of proposals – introduced in the name of fighting terrorism – that really ends up only diminishing privacy”.

Although Internet crime is on the increase,⁹ the potential for government to help seems limited, in that, there is a risk of the government doing more harm through design mandates or further intrusion on privacy.

Carnivore – this is a computer program designed by the FBI to intercept Internet communication.

Although the idea behind Carnivore seems ideal i.e. it is designed to aid investigation of criminal offence via scanning all incoming and outgoing emails – including sender and recipient addresses of a suspect.

However, the introduction of Carnivore creates a new threat to the privacy and security of Internet communications, for instance, everywhere we go on the Internet we leave digital fingerprints, which can be tracked, by marketers and government agencies alike.

On the whole, the issue of privacy on the Internet is very important that is, policing the Internet is virtually impossible due to the ever changing world of technology hence, laws tend to follow technology and not the other way round.

Monitoring of the Internet may be argued as vital in dealing with wrong doers however,¹⁰“the desire to translate every current offline surveillance capability into online world – regardless of consequences – should not be allowed to create a new technical surveillance architecture with huge privacy and security risks”.

⁸ Ref: <http://www.cdt.org/policy/terrorism>

⁹ Ref: www.cdt.org/testimony/000525dempsey.shtml (May 25 2000)

¹⁰ Ref: Carnivore’s Challenge to Privacy and Security Online, Testimony of Alan B. Davidson – www.cdt.org/testimony (July 24 2000)

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