Article review on end-to-end analysis of the spam value chain

Technology, Internet

The major contributions of the article

The article provides information that is essential in enhancing the understanding of the subject i. e. spam business. The authors have the knowledge of what has been done in this particular field as far as research is concerned which is essential in linking their work with that of other researchers. For instance, they have noted the elements of the chain that have been studied. It outlines the important aspects that should be taken into account in addressing spam as an important tool for advertisement: secure Botnet services, registered domains, name servers provisioned, as well as acquiring proxy or hosting services. Additionally, they acknowledge the specific researchers who have been involved in such studies.

It seeks to provide information about the number of organizations who have been involved in the spam business; the relationship between the organizations or rather the role each of the organizations play in enhancing the success of the business; as well as the extend of the growth of the venture in the contemporary society. Additionally, it presents a method for understanding all the aspects that are in play for a spam to be executed successfully. Such information is essential in curbing the spam problem since it would enhance the concerned bodies/agencies to make informed decisions. The study features three business-selling categories, which are advertised via spam using e-mail vector namely pharmaceuticals, replicas and counterfeit software. The researchers/authors have justified their focus on the three categories in their study-they are the most advertised goods in spam.

The central ideas

The article gives an overview of the major factor that has posed the greatest challenge if solving the spam problem. According to the researchers, the modern spam business is rather complex due to the involvement of several parties executing different tasks. The authors were keen to note the time that they use as a reference point for their timing-ten decades ago (2). Owing to the dynamic nature of global technological development, the time limit given not only enhances the credibility of the study but also its reliability as a future reference point.

The article outlines the elements that have caused the complexity of spam business in the contemporary society in a comprehensive manner. They are mainly the ' click support' actions by the spammers and their accomplices as well. They include the redirection of sites, which makes it rather difficult to track the ' trajectories', use of domains, name servers, web servers as well as stores and affiliate programs. Besides providing detailed information about each of these elements, the authors provide relevant examples to support their arguments. For instance, they give Webmoney, which is an online financial instrument, as an example of the stores and affiliate program that has played a pivotal role in the enhancement of the spam business. Additionally, they have also used credible sources of information to back up their explanation on the several ' click support' elements. For instance, they used " a recent study by LegitScript and KnujOn" in supporting their argument about the use of domains to propagate spam advertisement in the pharmaceutical industry (2-3).

The business chain would not be complete without achieving customer

satisfaction, which includes the delivery of the product in question. Since the purchase process is virtual, any business researcher would give a detailed account of how the client purchases the product and how it reaches him/her after settling the payment. The article explains how the payment of the product is done i. e. credit cards. Additionally, it gives detailed information about how the product(s) is delivered to the client as well as example of the websites that facilitate the delivery e. g. Alibaba, ECTrade and ECPlaza.

How authors verify their claims

The ability to enhance the validity of results is a crucial aspect in research work (Mark et. al 102; Stephen 66). The researchers use a manual system to ensure that the all the required URLS were included in the clustering as well as the tagging steps (7). This not only boosted the confidence of the researchers on their works but also helps to remove any doubts that the reader could have about the data collected i. e. its validity. Additionally, they used the most valid means of recording the elements that were part of the procedure yet without cyberspace. For instance, they tagged and photographed all their shipments before storing them in safe places. This was essential as far as the provision of evidence about the shipped goods is concerned. Additionally, such information was instrumental in determining whether the shipments matched the description given in the online advertisement/spam an aspect that is essential in the verification process of the method in question.

Another notable aspect of the process is the record that the researchers made from the different shipments. They noted the specific features of the

product as well as the country of origin of each of the products. Though some of the products were promoted by the same affiliate organization, the shipment information showed that they were from different nations. Most of the shipments were from India, China, United States and China. This helps to understand the interplay of different players or rather parties in the spam business.

The use of illustrations enables the reader to have a better and clear understanding of the issues at hand (Stephen et. al 22). The article has several illustrations that seek to boost a better understanding of the spam value chain. The illustration is also in line with the products that the researchers chose to use in their study i. e. products within the pharmaceutical industry. Figures have also been used to summarize the data sources as well as the methods used.

Cyber security is one of the controversial issues. It has raised the concern of the international community since it has been used in the past to orchestrate crimes both within the cyberspace and in different regions in the world. This calls for all researchers who are directly or indirectly involved in issues concerning cyber security to get permission for the relevant authorities. The researchers of the study in question were compliant to this requirement. They worked closely with legal advisors to ensure that they do not violate any law as they carried on with their work or rather study. Additionally, they complied with the legal requirements especially in the disposal of the acquired goods.

Advertisement involves the publicizing a product with the aim of generating sales thus profit. For one to be able to establish the suitability of spam as an

advertising tool, he/she should provide evidence of its profitability. This can only occur if there is a record of all the participants involved in the business. The article outlines the business process which takes into account merchant bank accounts, customer service as well as customer fulfillment.

Weaknesses

The process of collection of data from cyberspace is essential. The researchers outlined the various tools/software that they used in collecting their data. They included feed parsers, a DNS crawler, a farm of Web crawlers, a clustering tool and a content tagger. The article also gives the role of each of the tools in data collection. However, some the information provided for some for the tools does not fully explain the details of how they operate. For instance, for the crawler, the authors note, " it heuristically determines convergence using standard maximum likelihood methods to estimate" (6). The article does not contain any further information about the specific maximum likelihood methods that the crawler uses in the generation of the results. Such information is essential, as it would enable the reader to do their research in justifying the findings of the study in question. Additionally, the authors mention that there are certain practical challenges that are presented by crawling spam URLS in terms of robustness, adversarial conditions, and robustness (ibid). However, they do not tell us the probable effects of such challenges especially in determining the credibility of the study results.

All research work is usually based on a number of assumptions. This enhances a better understanding of the results as well as the level of

involvement of certain elements throughout the research process as well as the results (Mark 89). The authors of the article did not consider this aspect when writing their report. An example of an assumption that would have been noted in this piece of work is that all the products that were advertised in spam would be delivered promptly after the client makes his/her payment. Such an assumption would have enabled the researchers to state their findings in a more concrete way i. e. some of the spam adverts cannot be used in determining all the parties involved within the chain.

My opinion/ Recommendation(s)

The article is a rich source of information especially for the agencies that are tasked with curbing the cybercrime especially those committed through spam. Future researchers should seek to establish if all the parties involved in this business know that the mode of advertisement of the business is spam. For instance, do all payment service providers know that some of their transactions directly promote cybercrime e. g. spam? Future researchers on the same topic should seek to identify the most appropriate level of intervention of spam especially through e-mail.

References

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