

INTERNET ADVERTISING: CLICK FRAUD*

*Prapavarin Aphaivongs***

ABSTRACT

There are many categories of internet advertising nowadays, one that has legal issues is “search engine marketing” which is a source of Click Fraud. Since Thailand has just begun using internet advertising, it still has gaps of laws for this legal issues. Therefore, it is necessary to study laws from other developed countries in order to understand and realize what Thai laws should be amended.

Search engine marketing has a special payment method for the business operators or advertisers, called “Pay-Per-Click”, which an advertiser will be charged whenever there is a click on its internet advertisement and the advertiser has to pay to an advertising agency or an advertisement publisher. A person who makes Click Fraud in this payment method with knowledge creating a fraud click to the displaying internet advertisement. There are two main categories of Click Fraud; the publisher click fraud which made by the advertising publisher or the advertising agency, and the competitor click fraud which made by the competitive business operator. The consequence of the above mentioned Click Fraud is a new type of cybercrime which has become known to the potential victim advertiser with huge damages and harm left to the internet advertising business.

This article presents the study about laws of developed countries like the United States of America, China, and Japan, which has faced to this cybercrime for many years. They provide their own domestic laws in order to govern the Click Fraud issue. However, although there are many laws relating to cybercrimes protection, there are still gaps of law which cannot apply to Click Fraud issue. Therefore, this article will present analysis of how Thai laws could not govern to Click Fraud and the recommendation of solution in order to make Thai laws effective and enforceable.

Keywords: Internet Advertising, Click Fraud, Search Engine, Computer Crime

บทคัดย่อ

ในปัจจุบันผู้โฆษณาได้มีการเลือกใช้บริการโฆษณาทางอินเทอร์เน็ตในหลากหลายรูปแบบ แต่ทว่า มีการโฆษณาทางอินเทอร์เน็ตในรูปแบบของโปรแกรมค้นหา หรือเดิร์ชอนิชนั้น ได้เป็นต้นกำเนิดของการ ซื้อโงงด้วยการกดเข้าชมโฆษณา (Click Fraud) ทั้งนี้ เป็นจากประเทศไทยยังเป็นประเทศที่อยู่ในช่วง เริ่มต้นของการใช้บริการโฆษณาทางอินเทอร์เน็ตทำให้ประเทศไทยนั้นยังคงมีปัญหาในเรื่องของช่องว่างทาง กฎหมายเกี่ยวกับอาชญากรรมทางคอมพิวเตอร์ ดังนั้น ในการที่จะแก้ปัญหานี้ถ้า ประเทศไทยจึงจำเป็นที่ จะต้องศึกษาข้อมูลและกฎหมายที่เข้ามามีบทบาทในการจัดการแก้ไขปัญหานี้ ซึ่งการนี้ ไม่ใช่ของไทยให้สามารถ ครอบคลุมได้ทั่วถึงต่อไป

จากการที่โปรแกรมการค้นหาเป็นแหล่งกำเนิดของการซื้อโงงด้วยการกดเข้าชมโฆษณา ทั้งนี้ เป็นมาจากการค้นหาดังกล่าวมีรูปแบบการเรียกเก็บค่าใช้บริการจากผู้โฆษณาโดยการจ่ายเท่ากัน จำนวนคลิก (Pay-Per-Click) ให้แก่ตัวแทนในการแสดงโฆษณาบนอินเทอร์เน็ต หรือผู้แสดงโฆษณา บนอินเทอร์เน็ต ผู้ที่กระทำการซื้อโงงด้วยการกดเข้าชมโฆษณา นั้นจะต้องเป็นการกระทำที่รู้จักการโฆษณาใน ลักษณะดังกล่าวซึ่งสามารถแบ่งแยกประเภทของผู้กระทำการได้สองประเภท คือ ผู้กระทำการซื้อโงงด้วยการ กดเข้าชมโฆษณาเป็นผู้แสดงโฆษณาที่ต้องการ หรือเป็นตัวแทนในการแสดงโฆษณาทางอินเทอร์เน็ต และผู้กระทำการซื้อโงงด้วยการกดเข้าชมโฆษณา นั้นเป็นกลุ่มที่ทางการค้านองผู้โฆษณา ผลของการซื้อโงงด้วย การกดเข้าชมโฆษณา นั้นสามารถสร้างความเสียหายให้แก่ผู้โฆษณาเป็นเงินจำนวนมากและสร้างความเสียหาย ในเชิงธุรกิจของการโฆษณาด้วย

* This article is summarized and arranged from the thesis “Internet Advertising: Click Fraud” Master of Laws in Business Laws (English Program), Faculty of Law, Thammasat University, 2015.

** Graduate student of Master of Laws Program in Business Laws (English Program), Faculty of Law, Thammasat University.

บทความนี้จึงนำมาซึ่งการศึกษาข้อมูลกฎหมายของประเทศที่พัฒนาแล้ว อาทิ ประเทศไทย อาร์กอเมริกา ประเทศจีน และประเทศญี่ปุ่น ซึ่งประเทศเหล่านี้ล้วนเป็นประเทศที่ต้องประสบกับปัญหาการซื้อขายการคดเข้าชั้นโภชนาในธุรกิจโภชนาแล้วนานแล้ว จึงได้มีการประกาศบังคับใช้กฎหมายภายในประเทศในการควบคุมปัญหาและผลกระทบจากการซื้อขายการคดเข้าชั้นโภชนาดังกล่าว ในขณะที่ถึงแม้ว่าประเทศไทยจะมีกฎหมายหลายฉบับที่เกี่ยวข้องกับอาชญากรรมทางคอมพิวเตอร์ แต่ทว่าชั้นไม่มีกฎหมายฉบับไหนที่สามารถครอบคลุมไปถึงปัญหาการซื้อขายการคดเข้าชั้นโภชนาได้ ฉะนั้น บทความฉบับนี้จะแสดงให้เห็นถึงการคิดวิเคราะห์เบริชเบที่บ่งชี้ว่ากฎหมายไทยและกฎหมายต่างประเทศที่จะนำมาซึ่การแก้ปัญหาชั่วคราวทางกฎหมายของไทยได้

คำสำคัญ: การโภชนาทางอินเทอร์เน็ต การซื้อขายการคดเข้าชั้นโภชนา โปรแกรมการค้นหา อาชญากรรมคอมพิวเตอร์

INTERNET ADVERTISING: CLICK FRAUD

The advanced technology especially the advertising business on the internet network has played a great role since 1990s to supersede the old methods of advertising. We may recall the methods of communications from the previous time such as postal mail, land line telephone and cable telegraph were all replaced by the new advanced technology of internet network advertising. The internet network can easily connect everyone together beyond territory and frontier. From this advantage, therefore, the internet network plays a significant role in business activities and advertisement on it which becomes an integral part of advertising business later.

The internet network advertising can be of a success business by targeting on each commercial product for appropriate customers in advertising market. The internet network can help advertising business to easier target the customers by age, gender, or location. From this benefit, the advertising through the internet network has been widely used and kept growing rapidly in the recent years. As advertising business operators, they can aim their advertisements to various group of people by using the internet

network and displaying the advertisement on a website or an internet browser, which many people can access. Subsequently, many business operators have changed their way of advertising their businesses to use the internet advertising instead of normal paper publishing or other media advertising display. During the year 2014 to 2015, there are expenses of the internet advertising business in the United States of America worth more than ten billion US dollar each year¹. Whereas, almost six hundred million Baht spent on the internet advertising business in Thailand even it has lately begun, comparing to the U.S. These are the reasons why the number of internet advertising business and the amount of money used in this industry keep growing.

The internet advertising is categorized in five categories which are (i) Digital Advertising; (ii) Affiliate Marketing; (iii) Social Network Advertising; (iv) Search Engine marketing; and (v) Mobile Advertising.² The internet advertising also has many payment methods which can be agreed and chosen by an advertiser and an internet advertising publisher or an internet advertising agency. The payment method that has legal issue here is “Pay-Per-Click” payment method. It is generally used in search engine marketing and social network advertising. Hence, whenever the internet advertising has been displayed on the internet website, the advertiser will be charged upon the amount calculated from the number of clicks on such advertisement and the price as agreed under an advertising agreement. Notwithstanding, the charge would be different depends on the consideration under each contract between the advertiser and the advertising agency or the publisher. Therefore, this Pay-Per-Click payment method likely lead to a new form of cybercrime called “Click Fraud” which is conducted by using an unintentional click on the internet advertisement in order to cause more charges from the

¹ Stephanie Davidson, Dorothy Gambrell, and Adam Pearce, “How Much of Your Audience is Fake?”, <http://www.bloomberg.com/features/2015-click-fraud/>

² Boundless, “Types of Internet Advertising.”, <https://www.boundless.com/marketing/textbooks/boundless-marketing-textbook/social-media-marketing-15/introduction-to-social-media-digital-marketing-98/types-of-internet-advertising-483-10593/>

advertiser to the internet advertising publisher or the internet advertising agency.

As Click Fraud arises from the Pay-Per-Click payment method by a fraudster who is with bad faith intends to damage the advertiser or exhaust the displaying internet advertisement in order to obtain its own benefits. Click Fraud can be categorized in two types³; the first one is “Publisher Click Fraud” which is conducted by the internet advertising publisher itself which intends to gain more money from its clients, it can make fraud clicks by hiring other

people to click on the displaying advertisement or by using clickbot. Another type of Click Fraud is “Competitor Click Fraud”. The Competitor Click Fraud does not cause for monetary intention but for other benefits. This category likely happened since there are more than one advertiser in the same publishing platform.⁴ For instance, there are many internet advertisements in Google Search Engine and the fraudster is one of the advertiser who does not want to pay much money in order to have a better rank on the search engine result. Then the fraudster creates many fraud clicks in the competitor’s advertisement which was paid for the best rank on the Google Search Engine to make such advertisement exhausted. After that when the competitor’s internet advertisement is exhausted, it will be removed from the top ranking as it has been paid for. The internet advertising of the fraudster will move to a better rank of Google Search Engine result whilst the charge payable to the internet advertising publisher still remained the same. Therefore, these two categories of Click Fraud are nowadays a new cybercrime that needs to be considered as a serious legal issue.

Thailand is one among many developing countries which has not sufficient or appropriate law to govern the cybercrime on Click Fraud issue on internet network, while some other developed countries have

³ *Id.*

⁴ Ronald L. Johnston, Arnold & Protor, “The Computer & Internet Lawyer” (2010), <http://thejordanlawgroup.com/OLDSITE/media/computerinternetlawyermag.pdf>

been using it for many years. Therefore, it needs to have a comparative study to such developed countries on how they solve Click Fraud issue in the internet advertising business. The countries which are chosen here for studying in this thesis are the United States of America, China, and Japan. The United States of America which is the biggest countries operating internet advertising business has implemented its own domestic law together with the technology development. Even there are some lawyers who propose against the Congress' opinion not to establish a new specific law about computer crimes in the U.S. because it would be redundant, however, the U.S. finally enforces the laws relating to Click Fraud

issue which are Computer Fraud and Abuse Act, Federal Trade Commission Act, and Wire Fraud Act.

Under the Computer Fraud and Abuse Act implemented in the United States, there is a famous Click Fraud case brought to the court by Microsoft Corporation.⁵ Microsoft sued Lam and other defendants due to their Click Fraud conducts on the other internet advertisements displayed by Microsoft Live Search, a part of Microsoft's business. This case related to the Competitor Click Fraud Scheme since the defendants had benefit from their Click Fraud conducts by exhausting another advertisement that had a better position on the Microsoft Live Search in order to make such advertisement finally removed and disappeared from the better position in Microsoft Live Search and, consequently, the defendants' advertisement moved to the better position of the result of Microsoft Live Search. This case is a precedent case of Click Fraud that Microsoft alleged under the Computer Fraud and Abuse Act ("CFAA") Section 1030: Fraud and related activity in connection with computers, (a)(4) and (a)(5) violation to the fraudster. This both sections determine how it would be violation when any person accesses a protected computer with intention to defraud and cause damage or loss to the computer owner. Additionally, these sections also determine compensation with damages, injunctive relief, or other

⁵ *Microsoft v. Lam et al.*, case number 09-cv-0815, in the U.S. District Court for the Western District of Washington, (filed June 15, 2009).

equitable relief. Therefore, in *Microsoft* case, the element of scienter element is satisfied by Click Fraud scheme because clicking on an advertisement with such purpose is substantial. However, interpreting the CFAA by the court decision should be careful because of the favor decision to Microsoft can make most effect to the viability of online advertising support. Moreover, there is some arguments that the CFAA should not be applied to Click Fraud because it will be redundant but the supporters to CFAA said that the CFAA is likely fitted and applicable to Click Fraud litigation.

The U.S. also applies the Federal Trade Commission Act (the “FTC Act”) to this Click Fraud scheme since it relates to the competition trade law. In the FTA Act § 45, it provides the rule to protect the consumers from unfair methods of competition unlawful; prevention by commission (Section 5) which prohibits the unfair acts or practices in or affecting commerce. However, there are some complaints about no direct reaction and nothing is done with the Click Fraud by the FTC. Moreover, the FTC itself has provided a comment in the article that it concerns about the conduct that damages or affects the consumers rather than the advertisers.⁶

Besides these two acts, there is another act that is applicable to Click Fraud, the “Wire Fraud Act”. Under the 18 U.S. Code § 1343 or the Wire Fraud Act, the court divided essential elements of wire fraud in 4 substantial elements which are: “(1) that the defendant voluntarily and intentionally devised or participated in a scheme to defraud another out of money; (2) that the defendant did so with the intent to defraud; (3) that it was reasonably foreseeable that interstate wire communications would be used; and (4) that interstate wire communications were in fact used.”⁷ In this situation, the Wire Fraud Act is applicable to Click Fraud because the key element of Click Fraud is that the fraudster intends to defraud other

⁶ Danny Sullivan, “Clickfraud: Whose Problem, FTC, Search Engines or Advertisers?” (Oct 13, 2004), available at <http://searchenginewatch.com/sew/news/2063644/clickfraud-whose-problem-ftc-search-engine-or-advertisers>

⁷ *United States v. Profit*, 49 F.3d 404, 406 n. 1 (8th Cir.) and *United States v. Hanson*, 41 F.3d 580, 583 (10th Cir. 1994)

people in order to get money through the internet advertisement clicking. Therefore, Click Fraud could be governed by the Wire Fraud Act in order to protect internet users.⁸

Apart from the U.S., other countries that we should consider in parallel are China and Japan which are the greatest

technology development countries in Asia. In China, Click Fraud firstly happened for many years ago since the internet enhancement and then cybercrimes became serious issues.⁹ The big issue is non-human traffic or clickbot which is the other kind of fraud made by a robot. To solve this issue, the Chinese government has established the protection of click fraud under the Advertising Law of People's Republic of China¹⁰. Particularly, Article 20 of the Advertising Law specified that an advertisement publisher must obligate under an advertising contract that the publisher has made with an advertiser. In click fraud scheme, if a fraudster is a party under the advertising agreement, then the click fraudster shall be liable and may compensate to the injured party because the fraudster violates its obligation to the contracting party under their advertising agreement. Furthermore, Article 21 provides a regulation of prohibition of unfair competition. This Article prohibits the unfair competition in the advertising business not to be arisen in the advertising activities published by an advertiser, including its agent and publisher. Moreover, this Click Fraud scheme is subjected to the Civil Law of People's Republic of China, Article 117, and the Penal Code of People's Republic of China, Article 13, which are trying to discourage the click fraudsters and try to stop them from committing computer fraud crime.

⁸ Amy Tracy, Technology Law - Great Google-y Moogley: The Effect and Enforcement of Click Fraud and Online Advertising, 32 U. Ark. Little Rock L. Rev. 347 (2010), available at: <http://lawrepository.ualr.edu/lawreview/vol32/iss3/5>

⁹ CHEN Jia, "Click Fraud and Exploration of Its Prosecution in China", available at <http://wenku.baidu.com/view/f91d5023bcd126fff7050b96.html>.

¹⁰ "Online Fraud – the Biggest Problem of Chinese Digital Advertising", available at <http://sampi.co/fraud-the-biggest-problem-of-chinese-digital-advertising/#ixzz45fDz sj1r> (2015)

In Japan, they have a different Click Fraud scheme from others countries called “One Click Fraud” crime, the cybercrime that occurred when internet users click on the internet advertisement which is a trap of scam.¹¹ This One Click Fraud crime arose from the Japanese’s habit which they would not resist on humiliation by strangers to their own social, for instance, family and colleges.¹² Therefore, the fraudster uses this point in order to get money in exchanging not to humiliate them. Normally, this situation would be found in the porn websites which persuade the internet users to click on such advertisement. This causes a huge number of victims and monetary damages. However, the Japanese government concerns about this fraud which is similar and probably be categorized as same as scam. The government provides a regulation in order to control One Click Fraud and protect an innocent person such as Article 246 and 246-2 of the Penal Code of Japan which rules the violation of fraud, specifically in computer, with the imprisonment with work for not more than 10 years.¹³ Therefore, Japanese Penal Code likely can govern over One Click Fraud crime in Japanese internet fraud presently. Even there are a large number of victims and damages in Japan, at present, they have a law that is capable to bring the fraudsters to the court and punish them for their offenses.

Comparing to Thai laws, although Thailand does not have any specific law about the internet advertising: Click Fraud, it is necessary to study other related laws even they are lacks of protection for this issue. The first law is the Competition Act of Thailand B.E. 2542 (1990). This Act provides a general rule in Section 29 that a business operator is not allow creating an unfair competition that affect other business operators or prevent others from carrying out business. This Act seems like it is applicable to competitor click fraud but we should consider deeper about the meaning of “a

¹¹ Nicolas Christin, Sally S. Yanagihara, and Keisuke Kamataki, “Dissecting One Click Frauds”, Carnegie Mellon University Technical Report CMU-CyLab-10-011 (2010)

¹² *Id.*

¹³ *Id.*

business operator”.¹⁴ The term “business operator” under this section is the business operator who has domination or power over a market and has the market share and sales volume competition exceed the threshold defined by the Commission and approved by the Council of Ministers and published in the Government Gazette. Therefore, under the Click Fraud issue, especially the Competitor Click Fraud, if allcompetitors in the internet advertising do not have domination over the market, such Click Fraud could not be considered as a matter under the Competition Act, Section 29. Moreover, the Publisher Click Fraud cannot be applied by this Competition Act because an internet publisher and an advertiser are not in the same business market.

Next, the Civil and Commercial Code of Thailand is the essential law that should be considered to Click Fraud issue. In Book II: Obligations, Title V: Wrongful Acts, a general concept of wrongful acts is provided in Section 420 and 421. Indeed, such provisions are not directly applied to the Click Fraud issue due to the substantial legal elements of both sections. For the wrongful acts under Section 420, the substantial element is that a person has to willfully or negligently act to another and cause injury to another unlawfully.¹⁵ Analyzing from these elements, Click Fraud would not be subjected to this Section because Click Fraud is not a conduct infringing the law and, in the other words, it is not unlawfully act to another person even if it is willful or negligence. However, the Wrongful Acts of the Civil and Commercial Code provides another section, Section 421, which intends to fill the gap of the law in Section 420. This Section defines that the exercise of a right which can only have the purpose of causing injury to another person is unlawful. However, the meaning of exercising rights in Section 421 is limited since it has been interpreted that ‘rights’ in this provision

¹⁴ Sakda Thanitkul, “Competition Act B.E. 2542 Explanation and Case Study”, Vinyuchon Publishing (2551).

¹⁵ Sak Sanongchart, “Wrongful Acts and Responsibility Explanation”, Niti-Bannagarn publishing, 8th edition (2015).

means ‘rights under laws’, not ‘the natural rights’.¹⁶ Even Click Fraud can be considered as the exercising of rights with an intention to damage an advertisement owner or an advertiser, the rights that have been exercised were not constituted by any law. Therefore, Click Fraud is unlikely to be treated as a wrongful act under Section 421 of the Civil and Commercial Code of Thailand. For the punishment relating to Click Fraud issue, the Penal Code of Thailand has the provisions about fraud offences in Chapter III, Section 341 to Section 348. The main related Section to the aforementioned Click Fraud is Section 341, the general legal concept of fraud offences in the Penal Code of Thailand. A person who has an intention to deceive another person in order to obtain property of another person or a third person is convicted as the offender and shall be imprisoned or fined. However, not every Click Fraud case shall possibly be applied to fraud offences in the Penal Code since there are some publisher click fraud and competitor click fraud which do not have an intention of deceiving another person in order to obtain others’ property. Notwithstanding the foregoing, there is another specific criminal law in relation to computer named the “Computer Related Crime Act” B.E.2550 (2007). This Act has promulgated since the computer technology is fully entered into Thailand. The technology development made the existing laws not appropriate to govern over Click Fraud crime issue. The objective of this act is to control the protected computer and electronic data of other person, including the way of accession to protected computer or any electronic data without authorization, and electronic data disclosure. Unfortunately, there is no computer fraud or Click Fraud was controlled by the provision stipulated in this Act. Therefore, if focusing only on Click Fraud, this Act is not sufficient enough to govern this new cybercrime

Besides the Civil and Commercial Code and the Penal Code, the Electronic Transaction Act of Thailand is likely to be one

¹⁶ Jitti Tingsapat as amended by Khemapoom Bhumithavara, Chawin Oinpat, and Amnart Tangkiriphimarn, “Civil and Commercial Code Explanation: Management of Affairs Without Mandate, Undue Enrichment, and Wrongful Acts”, (2557).

of the laws that may relate to this kind fraud. However, it could not apply to Click Fraud issue since this Act is focusing on how the electronic transaction would be enforceable and acceptable in actual under the laws and in litigation, including the electronic signature in a transaction. In spite the fact that Click Fraud is one of electronic transaction, this Act cannot control or protect an innocent person from Click Fraud in the internet advertising business.

Since the internet advertising is a business that relates to consumers' interests, therefore, the Consumer Protection Act needs to be considered in this case as well. Although the existing Consumer Protection Act of Thailand provides the restriction and regulates general advertising to the publisher in order to protect its consumers, however, there is only restriction to the internet advertiser that should not publish a misleading or fault advertising which could risky cause damages or injury to consumers. Click Fraud is not likely related to the procession of advertising establishment, instead, it comes from the third party or, sometimes, from the publisher itself deceives an advertiser. Therefore, the Consumer Protection Act could not restrict or be effective to Click Fraud protection.

Recently, the National Legislative Assembly who has been appointed by the National Council for Peace and Order (NCPO) are now drafting amendments to the existing laws and regulations and trying to adopt a new enactment. However, the drafts are at this time still be in the process which would possibly take more than a year from now (2016) until they can be promulgated and enforced.

When comparing Thai laws to others, it gives us a very concerned result. For instance, Section (a)(4) and (a)(5) of the FTC Act includes the accession of data from the protected computer without authorization and causes damage to another either with recklessness or intention is effectively applied to the click fraudsters of the *Microsoft* case unlike Thai regulations which have not specified that the fraudster has to be liable and punished for his conduct which causes damage to another's property either with intention or recklessness. Moreover, the Competition Act of Thailand still has gaps that could not govern and cover to all mentioned Click

Fraud issues because of its main reason of the term ‘a business operator’ which is narrower than the FTC Act’s term. Furthermore, the Consumer Act of Thailand is not effective enough to protect the consumers of the internet advertising business in Thailand unlike the Chinese Advertising Law which can control the unfair method of advertising business to an advertiser. Additionally, the Computer Related Crime Act of Thailand is still insufficient to the Click Fraud issue here since there is no specific section that possibly controls computer fraud issue unlike the CFAA of the US.¹⁷

Therefore, although Thailand does not have many serious Click Fraud cases in the internet advertising business as other developed countries are confronted since we are in the beginning period of the internet advertising business, it would be better and necessary to have some specific laws and regulations for controlling and preventing any damages which may incurred from Click Fraud caused by the click fraudster whether in domestic or international. Therefore, from the author’s opinion, the existing Thai laws still has gaps which could not govern and protect an innocent advertiser from Click Fraud issue. The amendment or enactment of a new specific law initiated by the legislative of Thailand will fulfill these gaps in our legal system like the United States of America, China, and Japan, in order to govern and regulate this Click Fraud issue in the internet advertising business.

REFERENCES

Books

ศักดิ์ สนองชาติ. กำลังที่น่าจะด้วยความรับผิดชอบทางละเมิด. กรุงเทพฯ: นิติบัณฑิต, 2558. (Sak Sanongchart. *Wrongful Acts and Responsibility Explanation*. Niti-Bannagarn Publishing. Bangkok, 2558).

¹⁷ See *Microsoft v. Lam et al.*

ศักดา ชนิตกุล. คำอธิบายว่าด้วยกฎหมายแห่งขั้นพักรากฐาน พ.ศ. 2542. พิมพ์ครั้งที่ 8. กรุงเทพฯ: วิญญุชน, 2551 (Sakda Thanitkul. *Competition Act B.E. 2542 Explanation and Case Study*. 8th ed. Vinyuchon Publishing, 2551).

จิตติ ติงศักพิทัย. คำอธิบายประมวลกฎหมายแพ่งและพาณิชย์ เริ่มมาตรา ว่าด้วย จัดการงานนอกสั่ง ลักษณะได้ ละเมิด. กองทุนศาลตราสารยัจดิ ติงศักพิทัย. คณะนิติศาสตร์ มหาวิทยาลัยธรรมศาสตร์, 2557. (Jitti Tingsapat. *Civil and Commercial Code Explanation: Management of Affairs Without Mandate, Undue Enrichment, and Wrongful Acts*. Jitti Tingsapat Foundation Faculty of Law, Thammasat University, 2557).

Articles

Nicolas Christin, Sally S. Yanagihara, and Keisuke Kamataki. *Dissecting One Click Frauds*. Carnegie Mellon University Technical Report CMU-CyLab-10-011, 2010.

Electronic Medias

Amy Tracy. *Technology Law - Great Google-y Moogley: The Effect and Enforcement of Click Fraud and Online Advertising*, 32 U. Ark. Little Rock L. Rev. 347, <http://lawrepository.ualr.edu/lawreview/vol32/iss3/5>, 2010.

Chen Jia. *Click Fraud and Exploration of Its Prosecution in China*, <http://wenku.baidu.com/view/f91d5023bcd126fff7050b96.html>.

Ronald L. Johnston, Arnold & Protor. *The Computer & Internet Lawyer*, http://thejordanlawgroup.com/OLDSITE/media/computerinternetlawyer_mag.pdf, 2010.