

LEGAL CHALLENGES RELATED TO THE REGULATION OF A DOMAIN NAME SYSTEM

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Abstract

Purpose—to review and analyse the problematic aspects related to domain name allocation and further usage processes, highlighting legal regulation of a domain name system.

Design/methodology/approach—based on the comparison analysis of scientific literature, authors discuss problematic issues related to the legal regulation of domain name allocation and usage processes, analyse practical approaches and collision cases in the context of a domain name system. The authors examine the positive and negative aspects of a domain naming system and conflicting regulatory specifics. This paper describes the development of institutional bodies responsible for DNS management, supervision approaches and inner functionality policies.

Findings—the authors examine domain naming system models and dispute resolution mechanisms, their evolution in the context of Internet development and the structural changes of the Internet governance institutions. The authors analyse tendencies related to DNS regulation and the possible effect of new regulation models in practice, while reflecting interests of stakeholders in the subject field.

Research limitations/implications—agreements on the registration of domain names

are based on self-regulation principles. A number of different interests may collide when speaking about domain name registration or usage and this issue becomes a major challenge to scientists and lawyers who are seeking an optimal domain-naming regulatory mechanism. The article does not address trademark conflicts within domain names in this respect. This should be considered as an object for separate study, which requires deeper analysis.

Practical implications—the authors review key aspects of the domain name system and describe tendencies for the regulatory models.

Value—the article emphasizes potential domain naming conflicts and disputes concerning the usage of common terms and phrases in order to manipulate information for illicit purposes. The legal and ethical aspect related to the limitation of domain name usage is reviewed when various combinations of top level domains and second level domains may arise due to newly-created generic top-level domain names. The usage of these methods may inflict potential threats for the legitimate interests of institutions, individuals or other legal subjects. The reasonable limitations of domain naming system could possibly help to protect the legal interests of individuals and to secure the legitimate expectations arising from a historical, cultural and legal perspective. The growth and impact of the internet influences global economic, political and business processes. The emerging of internet of things and other adaptations of the technology determine the necessity to liberalize the governance of a domain name system.

Keywords: ICANN, Internet Governance, IANA, TLD, gTLD, ccTLD, sTLD, Domain Name System.

Research type—general review, viewpoint.

1. Introduction

The Internet is a global network of autonomous computer networks which connect millions of users around the world. What once was an experimental countermeasure against the nuclear threat now is a powerful system which transformed the way of working, communicating and exchanging information. According to the International Telecommunication Union (ITU) the count of individuals using the Internet per 100 inhabitants globally reached an average of 32.5 in 2011 and 68.4 per 100 inhabitants in Europe at the same time. A United Nations report released on 16 May, 2011 declares Internet access as a human right, highlighting it as a medium for exercising right to freedom and expression. While not all scientists and business professionals agree that the technology itself can be declared as a human right (*New York Times*, Cerf, 2012), it is still amazing how big the impact of the Internet is on the daily life of more than 2 billion people.

During less than a half of a century of internet evolution its governance became a tricky task for the international community. In the late 20th century the United States Government found itself with *de facto* and most of the legal control of the domain name system (DNS). Internet technology had few big scientific developing bases and the USA had control over the most significant of them. In the late 80's, early 90's, the Internet began to be commercialized and the governmental bodies of the USA had to take some actions concerning DNS regulation. On 25 November, 1998, the United States Department of Commerce (DOC) modified a newly established non-profit organization, called the Internet Corporation for Assigned Names and Numbers (ICANN) as its partner. This action meant that the White House *de facto* handed over DNS control to the ICANN. The power and impact of the Internet has changed during the past 14 years. To date, the priority areas for legislative regulations on the Internet have been privacy, data protection, intellectual, property, taxation, and cybercrime (Kurbalija, 2010). There are different opinions about regulation of the Internet. Some countries try to regulate the access and content of web-based material, while others admit the right to access information freely. But the most common model (speaking globally) is based on self-regulation.

Domain names are becoming the trademarks for business and state institutions. The problem is that there may be no connection between the domain name and its owner, user or content of the site. Even though domain names are linked to an IP number (domain names are essentially translations of IP numbers/addresses into a more semantic form), their formal distinction makes these two sectors act independently. Organizations (registries/registrar) are assigned to deal with persons (registrants), who register a domain name. Application of the "first come, first served" approach became unsuitable for the users towards the development of the Internet. This form of regulation may harm interest of some groups, especially in those cases, when the meaning of words or phrases is distorted by the owners of the domain name. Intellectual property defence mechanism partially helps to regulate the issue, but in some cases words or phrases may not be an object of intellectual property regulation field, and may have an implied, deeper informational value. The paper highlights the potential domain naming conflicts and disputes concerning the usage of common terms and phrases in order to manipulate information for various purposes. Starting from the retrospective approach towards the Internet government standards, authors analyse possible solutions for the institutions responsible for DNS when common phrases, symbols or words come into collision because of separate interests and goals of the stakeholders.

2. Historical Background of ICANN

It is obvious that 1998 was the year of essential changes in internet governance field when, among the other things, the US Government made a decision to delegate some major rights and obligations to the private corporate entity—ICANN. Both bodies are the trains formally running on the separate tracks of Internet governance,

but actions speak louder than declarations and US Governments supervisory influence still is obvious enough. Furthermore, to avoid conflict of interests, inevitable changes from the US Government are expected. In opposite case, US special influence may raise unpredictable attempts to replace the status quo.

On 5 June, 1998, the National Telecommunications and Information Administration (NTIA) of the DOC issued a policy statement, the “White Paper,” calling on private sector Internet stakeholders to form a non-profit corporation to take over the administration of the DNS and the Internet numbering system (U.S. Department of Commerce, 1998). The legal basis of the original ICANN–DOC relationship rested on three agreements: 1) a Memorandum of Understanding (MOU, 1998), later replaced by a Joint Project Agreement (JPA) (2006); 2) ICANN’s Cooperative Research and Development Agreement (CRADA) with the U.S. Government (1999), and 3) a contract between ICANN and the U.S. Government for performance of the so-called IANA (Internet Assigned Names and Numbers) function relating to the operational management of the root zone file, and the assignment of Internet Protocol (IP) numbers and protocol numbers (2003). The DOC surrendered its most formal and visible legal control over ICANN, but kept some less visible powers. In exchange, ICANN promised to remain located in the U.S., thus remaining subject to U.S. jurisdiction. There were multiple reasons for the initiation of ICANN, but few of the most important were related with disputes concerning domain name dispute regulation policies, adoption of new gTLDs and cybersquatting (Froomkin, 2011).

3. The Concept of the Naming System and Domain Name Allocation Characteristics

Domain name system (DNS) is a user friendly method of navigation and this system basically operates as Internet phonebook. There are different types of domain names: generic top level domain (gTLD, i.e. .com, .net, .org), country code top level domain (ccTLD, i.e. .lt, .us, .no, .uk), second level domain names (i.e. brand name like nike.com, google.com, etc.). There are also second level domain names, as frequently used ones, which can be provided either under ccTLD, or gTLD (www.google.lt; www.google.com, etc.).

Actually, the possible number of DN strings is potentially unlimited, but currently name set can be composed of only 37 characters among which 26 letters, 10 numerals, and the “-” symbol. Although, the dash symbol can be neither initial nor final of DN and “dot” symbol only separates DN segments.

Additionally, the administration of the generic part of the domain name system (DNS) forms the core of ICANN’s activities. Country code top level domains (ccTLDs) are predominantly managed at the national level, while policies for the allocation of IP addresses are autonomously devised by the regional internet registries (RIRs) (Hofmann, 2007).

4. Practical Approaches and Collision Cases in the Context of Domain Name System

4.1. DNS vs. Trademarks

The Internet can be defined as a vast global network that links millions of computers for the purpose of communication and sharing information (Efroni, 2007). The websites are identified by their Internet Protocol (IP) addresses which are in the form of four octets (numbers) separated by full stops (Todd, 2005).

With the commercialisation of the internet, improvement of electronic commerce, it became obvious that many different persons seek the same domain name. Therefore, keeping the electronic trade and advertisements into consideration, the brands choose domain names that often correspond wholly or in part to their registered or unregistered trademarks. Unlike trademarks, the concept of “confusingly similar” name does not exist in the domain names, so the grant of domain name is less complicated in its primary stage, but more complex in the final (if any disputes appear). For instance, it is absolutely possible for two domain names to be extremely closely similar. Say there is a possibility of existence of *www.abcd.com* and *www.ab-cd.com*. In case of trademarks, even a little similarity may result in the refusal to register the mark (Snehlata, 2011).

4.2. New gTLD policy

New gTLDs have been in the forefront of ICANN’s agenda since its creation. The new gTLD program will open up the top level of the Internet’s namespace to foster diversity, encourage competition, and enhance the utility of the DNS.

Currently the namespace consists of 22 gTLDs and over 250 ccTLDs operating on various models. Each of the gTLDs has a designated “registry operator” and, in most cases, a Registry Agreement between the operator or sponsor, and ICANN. The registry operator is responsible for the technical operation of the TLD, including all of the names registered in that TLD. The gTLDs are served by over 900 registrars, who interact with registrants to perform domain name registration and other related services (gTLD Applicant Guidebook, 2012).

Moreover, the core of the system is a distributed database holding information over which DN map onto which IP numbers. The data files with this information are known as “roots” and the servers with these files are called “root servers” or “root nameservers” (Bygrave, Bing, 2009). The servers are arranged hierarchically devolving from TLDs to sub-domains. It should be noticed that TLDs may be carried out only by ICANN, although the high impact still belongs to the US Government anyway. While DN allocation and IP distribution process is managed by ICANN, 5 Regional Internet Registries participate in its implementation, amongst the other institutional bodies.

After the ICANN’s introduction of the controversial “batching” methodology and liberalisation of the new gTLDs, many different arguments from the various stakeholders

were provided since then (Official ICANN website, 2012). ICANN revealed that there were 1,930 applications received including those covering geographic names and indigenous language scripts such as Arabic, Chinese and Cyrillic. Out of the applications, North America led with 911 applications, Europe had 675, Asia Pacific has 303, Latin America and Caribbean had 24 while Africa had 17. Among these applications, top contested strings were .app, .home, .inc, .art, .blog, .book, etc. Moreover, an application for country or territory name is not going to be approved (i.e. .norge). According to the guidelines, ICANN can apply entities from over the world, that meet the pre-defined criteria (from guidebook) and requirements (not for individuals). Finally, such provisions lead to the question which interests have more weight implementing new gTLD programme: either public or private ones.

Actually, this is the third time ICANN opened up the new gTLD process and it is the first time the African and Latin American and Caribbean regions are involved. This process is likely to test ICANN's awareness on politics and tech issues particular to these regions.

Moreover, many proponents of new gTLD process have repeatedly cited the ICANN bylaws regarding its commitment to "introducing and promoting competition in the registration of domain names." However, a full reading of that provision reveals that this is not an absolute statement, but one which contains the following important qualifier: "where practicable and beneficial in the public interest." Unfortunately, many prospective gTLD applicants appear to view the Internet's Root A server as nothing more than a global incubator for entrepreneurs to test new business models for a few hundred thousand dollars in application fees (Palage, 2010).

On the other hand, ICANN made some decisions related to prioritizing public interests in its activities: "ICANN and the DOC recognize that there is a group of participants that engage in ICANN's processes to a greater extent than Internet users generally. To ensure that its decisions are in the public interest, and not just the interest of a particular set of stakeholders, ICANN commits to perform and publish analyses of the positive and negative effects of its decisions on the public, including any financial impact on the public, and the positive or negative impact (if any) on the systemic security, stability and resiliency of the DNS" (Affirmation of Commitments by the DOC and ICANN, 2009). Its latest guidance version provides easy steps and all specifics on how to apply for the new gTLDs (Official ICANN website, 2012). According to the latest data, an application for new gTLDs received: Africa-17, Asia Pacific-303, Europe-675, Latin America-24, and North America-911.

The second level domain names must be registered with an ICANN Accredited Registrar (i.e. in Lithuania: either Kaunas University of Technology, Information Technology Development Institute Domreg.lt., for gTLDs: .com .info .net .org; Hostinger, UAB for gTLDs: .asia .biz .com .info .mobi .name .net .org .pro .xxx (Ibid). Although, as was mentioned before, the ccTLDs are registered by the country code administrator of each country.

5. Dispute Resolution Policy

The conflict between trademarks and domain names is a topic of intensive discussion throughout the world. A trademark distinguishes the goods and services of one origin from the others. In this “youth age” of internet where e-commerce is so popular, the owners would like their domain names to be distinctive and possess all other characteristics as that of their trademark, which encourages them to use their trademarks as domain names.

Many form of violations exist in cyber space (i.e. cybersquatting, reverse domain name hijacking and typosquatting), but the top related since 1990's has been cybersquatting, leading to infringement procedure designed to ensure trademark owner's legitimate interests against DN holder which has already occupied TM related DN. TM holder has to prove that DN was gained having bad faith, no legitimate interests and DN is confusingly similar to TM.

In December 1999, the WIPO Arbitration and Mediation Center began offering domain name dispute resolution services under the Uniform Domain Name Dispute Resolution Policy (UDRP). The Center's services include administering second-level domain name disputes for generic Top-Level Domains (gTLDs) to which the UDRP applies. The Center is the leading provider of dispute resolution services under the WIPO-initiated, ICANN-mandated UDRP (official WIPO website, 2012).

In addition, UDRP is ICANN's regime adopted in 1999 and used to create a globally applicable private arbitration process that allows trademark owners to quickly and inexpensively challenge and recover DN registrations. On the other hand, the UDRP is typically applicable to second-level domain name registrations in the following gTLDs: .aero, .asia, .biz, .cat, .com, .coop, .info, .jobs, .mobi, .museum, .name, .net, .org, .pro, .tel and travel (Ibid).

Moreover, the “first come first serve” approach is currently changing the course by applying “defensive registrations” which mean that after new gTLD is established during so called “sunrise period” for incumbent trademark owner is allowed to register his second level domain and if only he refuses to register, “first come first serve” approach takes the place.

As the new sophisticated dispute resolution system (UDRP) was launched, it became much easier, cheaper and faster to solve such disputes. According to UDRP rules 3(a), any person can initiate a claim by simply submitting the hard copy and email with the complaint, to any forums or service providers approved by ICANN. The complaint must contain the choice of the complainant of conducting the dispute by a three member panel or a single-member panel. UDRP rules 3(b) facilitates the complainant to choose the panellists of his choice. The complainant must show that all the grounds mentioned in rule 4(a) are fulfilled. The registrant must respond to the complaint within twenty days. Relying on its findings, the panel further provides the remedy to the complainant. The remedies available to the complainant are limited to cancellation and transfer of domain names (Snehlata, 2011).

In any case, lawmakers made dispute resolution away from courts of national governments due to its extended and expensive litigation process. Even though UDR

process can be called private and guided by public or quasi-public rules and arbitrates, it still is the best possible global dispute resolution scheme.

According to UDRP, complaints are handled by dispute resolution providers appointed by ICANN.

6. Conclusions

To sum up it could be said, that the UDRP follow the fast development of the technological evolution, innovations, more and more sophisticated public relations, nevertheless it has its own disadvantages. Furthermore, the process is comparable fast (roughly 45 days), inexpensive (approx. 1500–3000\$), can take place online, and clear rules are applied. On the other hand, basically UDRP is built on one instance decision leaving thus no place for appeals. Secondly, gTLD and ccTLD UDRP is different (but not necessarily). In addition, procedural shortages are set, such as the complainant choosing the arbitrator, trials and pleadings are not public (except decisions), panellist selections process is too open, there are no rules of evidence, bias of panels (in favour to TM owner usually), process is inconsistent. According to the statistics, ~80% of complaints decided in favour of the complainant (the owner of TM).

The Internet and the institutions responsible for its governance suffered few radical changes during the last 20 years. With the creation of ICANN the structure of the internet evolved, new gTLDs were created and many more still pending to come. The new possible business models and prospect for stakeholders heat up the market and create a tension between different groups of interests. Dispute resolution mechanism helps to reduce the friction, but as soon as the Internet will hit the new grounds (i.e. Internet of things), the old problems may reappear. Moreover, the governance model of ICANN, where the DOC has jurisdiction leverage towards the governors of the Internet raises the question of further status of the ICANN. If the Internet expansion will be as vast and intense as in the past 14 years, there may be a lot more confusion and unexpected turns. On the other hand, ICANN demonstrates the ability to adapt to emerging changes pretty fast having not too much bureaucratic processes (compared with the state legal regulation mechanisms, United Nations or International Telecommunication Union). It is clear that stakeholders, who are interested on where the events in the frontline of the Internet are turning, will imply greater pressure towards creation of new gTLDs. Hopefully, emerging challenges will not corrupt the freedom of the Internet and the balance between all interested parties will be retained.

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DOMENŲ VARDŲ SISTEMOS TEISINIO REGULIAVIMO IŠŠŪKIAI

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Santrauka. Per pastaruosius dvidešimt metų interneto technologija tapo viena pažangiausių bei greičiausiai besivystančių pasaulyje. Internetas tampa bendravimo, informacijos sklaidos bei verslo arterija, su kuria siejamos paslaugos bei galimybės iš esmės

transformuoja darbo, poilsio bei saviraiškos procesus. Dvidešimtojo amžiaus paskutiniame dešimtmetyje į interneto rinką žengus privatiems žaidėjams atsirado poreikis keisti interneto valdymo bei administravimo struktūrą. Domeno vardų suteikimo sistema buvo per daug gremėzdiška ir nelanksti. Interneto fronte susidūrė tiek intelektualinės nuosavybės saugotojų, tiek laisvos informacijos priegios šalininkų interesai. Jungtinių Amerikos Valstijų Komercijos departamentas, spaudžiamas skirtingų interesų grupių bei tarptautinės bendruomenės, įkūrė organizaciją ICANN (angl. Internet Corporation for Assigned Names and Numbers), kurios pagrindinis tikslas buvo padėti išspręsti probleminius interneto administravimo klausimus, susietus su naujų aukščiausio lygmens domeno vardų įvedimu, ginčų dėl domeno vardų sprendimo problematika, domeno vardų užgrobimu bei intelektualinės nuosavybės apsauga. Formaliai ICANN veikdama kaip nepriklausoma institucija išliko JAV jurisdikcijoje ir siekia plėsti nepriklausomumą, kartu inicijuodama naujų aukščiausio lygmens domenų patvirtinimą, ginčų politikos pokyčius bei interneto reguliavimo tendencijas. Tačiau sulig naujų aukščiausio lygmens domeno vardų atsiradimu bei interneto pokyčiais balanso išlaikymas tarp skirtingų interesų grupių tampa sudėtingu uždaviniu. Iki ICANN sukūrimo vyravęs pirmumo teisės į domeno vardą principas kėlė daug sumaišties tarp domeno vardų savininkų bei pretenduojančių tokiais tapti. Pasikeitus ginčų sprendimo politikai atsirado daugiau lankstumo fiziniams bei juridiniams asmenims išspręsti nesutarimus neteisiminiu būdu. Nepaisant to, kad dabartinis ginčų sprendimo mechanizmas pažangesnis bei lankstesnis, neišvengiamai atsiskleidžia silpnosios naujų aukščiausio lygmens domeno vardų atsiradimo pusės. Aukščiausio ir antrinio lygmens domeno vardų dermių priimtumas gali tapti rimtu galvosūkiu tiek mokslininkams, tiek paprastiems interneto naudotojams. Pavykus užregistruoti tokius domeno vardų derinius kaip „church.xxx“ gali kilti tam tikrų visuomenės grupių nepasitenkinimas dėl termino prasmės iškraipymo. ICANN šiuo atveju vadovaujasi sąžiningų ketinimų principu ir išbraukia panašius derinius iš galimų rezervuoti domenų sąrašo, tačiau neatmestina galimybė, kad išradingesni bei gudriau užslėpti domeno vardų deriniai anksčiau ar vėliau prasiskins kelią į interneto erdvę. Ginčų tvarkos supaprastinimas bei pigumas taip pat sudaro sąlygas piktnaudžiauti domeno vardo užginčijimo sistema turtingiems rinkos žaidėjams, tad balansas tarp ginčų sprendimo operatyvumo, tikslingumo bei teisingumo dar nėra nusistovėjęs. ICANN stiprina savo pozicijas, todėl neatmestina galimybė, jog anksčiau ar vėliau ši organizacija atsikratys JAV Komercijos departamento šešėlio. Kita vertus, tarptautinės organizacijos statuso suteikimas prie Jungtinių Tautų vargu ar padėtų padidinti interneto laisvę dėl didžiulės biurokratijos, su kuria neišvengiamai susidurtų ICANN. Atsižvelgiant į interneto vystymosi mastą bei greitį galima spręsti, jog ginčytinų niuansų, susijusių tiek su domeno vardų sistema, tiek su pačiu interneto reguliavimo modeliu, tik daugės, todėl reikalingos įvairiapusiškesnės diskusijos bei mokslininkų įdirbis šioje srityje.

Raktažodžiai: ICANN, interneto valdymas, IANA, TLD, gTLD, ccTLD, sTLD, domenų vardų sistema.