3-2010

'Customary Internet-ional Law': Creating a Body of Customary Law for Cyberspace. Part 2: Applying Custom as Law to the Internet Infrastructure

Warren B. CHIK
Singapore Management University, warrenchik@smu.edu.sg

Published in Computer Law and Security Review, 2010 Mar, 26 (1), pp. 185–202.
http://doi.org/10.1016/j.clsr.2010.01.007

'Customary internet-ional law': Creating a body of customary law for cyberspace. Part 2: Applying custom as law to the Internet infrastructure☆

Warren B. Chik

Singapore Management University, Singapore

Keywords:
Internet Law, Customary law, Cyberspace
Public international law
Private international law

ABSTRACT

The shift in socio-economic transactions from real space to cyberspace through the emergence of electronic communications and digital formats has led to a disjuncture between the law and practices relating to electronic transactions. The speed at which information technology has developed require a faster, more reactive and automatic response from the law that is not currently met by the existing law-making framework. This paper suggests the development of special rules to enable Internet custom to form legal norms to fulfill this objective. In Part 2 of this article, I will construct the customary rules to Internet law-making that are applicable to electronic transactions by adapting customary international law rules; apply the suggested rules for determining customary Internet norms and identify some existing practices that may amount to established norms on the Internet, specifically practices relating to the Internet Infrastructure and Electronic Contracting.

1. Introduction

In Part 1[1] of this article, which appeared in the 2009 issue of the Computer Law and Security Review, I described the socio-economic problems and stresses that electronic transactions place on existing policy and law-making mechanisms. I also examined the history of custom as a source of law in various contexts and identified potential sources of Internet Law in particular the suitability of Customary International Law (CIL) rules as a template for formulating customary Internet law-making rules. This Part II continues and concludes the paper by constructing the customary rules to Internet law-making that are applicable to electronic transactions by adapting customary international law rules. I will also apply the suggested rules for determining customary Internet norms and identify some existing practices that may amount to established norms on the Internet, specifically practices relating to the Internet Infrastructure and Electronic Contracting.

2. Customary 'internet-ional law': the proposed method of applying custom as a source of legal rule in the development of cyberspace norms

2.1. *Craftsmen's considerations in the formulation of rules to determine customary 'internet-ional law'*

The main considerations when tailoring a set of customary law rules for the creation and identification of Customary

☆ This study was funded through a research grant (Project Fund No: C234/C220/MSS7M001, ZSL1Research) from the Office of Research, Singapore Management University. A shortened version of this paper was presented at the 4th International Conference on Legal, Security and Privacy Issues in IT Law (LSPI) that was held in Malta from 3 to 5 November 2009.

[1] [2010] 26 CLSR 3.

Internet-ional Law relates to both law-making and evidence gathering. These are driven by the idiosyncrasies of the digital environment and electronic transactions in contrast to the global physical counterpart.[2] They are:

1. Relevant Stakeholders' Practice: Who are the stakeholders that will be affected by what custom develops and whose actions should cumulatively determine custom, the hierarchy of these entities and how they can influence the development of Internet law. Basically, they fall under two categories, private individuals, entities and organizations on the one hand, including intermediaries; and the public sector, which is the government with its national interests on the other. Unlike the state-centric nature of Public International Law (PIL), Internet-ional law-making involves a wider swath of *relevant* stakeholders.
2. Role of the 'Alternative Sovereign'[3]: The dominant role of the technology creators and system designers in indirectly or unintentionally influencing and sometimes directly and purposefully manipulating behavior must also be considered. These intermediaries determine the way that the Internet functions and the features of the WWW, and with the dominant position of the few main players such as Google and Yahoo!, their influence on behavior and even attitudes and expectations towards communication and transaction online is strong. Thus, their proper role in the creation of custom should be carefully considered as well as the possible need to control the manner and way in which they develop technology, which has both positive and negative repercussions on society and on the economy.[4] Any type of control or counter-measure will probably have to be taken by the public sector especially governments such as in the form of legislation.
3. Acquiescence as Acceptance: The vital role, if any, of acquiescence in the creation of norms must be considered. Acquiescence is a particular characteristic of electronic intercourse, and it poses a challenge to the conventional notion of *opinio juris* and its role in customary norm creation in cyberspace. If observance or acceptance is to remain as an element of Internet customary law, it should be flexible enough to include less expressed manners of acceptance such as acquiescence as evidence of practice with a sense of legal obligation. There can be either a deeming effect, or at least a *prima facie* presumptive effect for the recognition of acquiescence as acceptance. If a presumption is used, then a distinction must be made between acquiescence to a practice (which constitutes positive reinforcement or tacit acceptance) and silent abstention (which is actually a negative attitude towards a practice),[5] even though sometimes the distinction may be difficult to make, and it is for the opponent rebutting the presumption to assert and to prove the latter.
4. Balancing of Relevant Interests: The interests of individuals and the community, new intermediaries and entities emerging from technology industry such as service, access and content providers and hosts, technological architects, various private technology industries and the public regulators are sometimes complementary but often conflicting and have to be balanced. The relevant interest must also identified and count towards the practice and acceptance that in turn determines the existence of a customary Internet law. The more uncontrolled nature of online behavior will have to be balanced against deliberate policy-driven creation of norms, and this is where a balance in the sources of law for the creation of norms can contribute.

Adaptability to change is the innate character of custom. As a law-making tool, it is more organic and flexible to change, for example, as compared to treaties[6]; and at the same time it is realistic as it reflects the reality of the Internet environment.[7] However, that is a different issue from the speed at which the law is substantiated and crafted, which depends strongly on a robust system of rule identification.[8] This is the

[2] Even though there is a sliding scale between fully online and offline transactions, this need not feature as a consideration here for the structuring of the general Customary Internet-ional Law matrix as: Firstly, the difference is only relevant to certain subject matter such as jurisdiction, which requires special treatment anyway under Private International Law rules. Secondly, the default position is that the laws of the relevant context would naturally apply in any case.

[3] Describing codes and code-writers. See Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach* 25 (1997) (unpublished working draft, on file with Albany Law Journal of Science and Technology), cited by Dr. Dan Jerker B. Svantesson, *Borders on, or Border Around – The Future of the Internet*, 16 Alb. L.J. Sci. & Tech. 343, 355 (2006). But it is not a real or full sovereign as it is still subject to the real sovereign, which is the policy and primary law-makers in terms of regulation and policy. It is more like the default (or incidental) sovereign for cyberspace unless and until the real sovereign decides to step in.

[4] Joel R. Reidenberg, *Lex Informatica: The Formulation of Information Policy Rules Through Technology*, 76 Texas L. Rev. 553 (1998), stating that for network environments and the Information Society, ''law and government regulation are not the only source of rule-making. Technological capabilities and system design choices impose rules on participants. The creation and implementation of information policy are embedded in network design and standards as well as in system configurations.''

[5] E.g., the automatic acceptance of spam into one's e-mail inbox, whether because of non-filtration or limited filtering technology, with the act of deletion of or unsubscription from such mail can constitute active rejection and non-acquiescence. Hence, it is uncommon that abstention will pose a problem particularly if *opinion juris* or positive acceptance is still an element of customary norm. The ''persistent objector'' can play a more minor role in customary Internet-ional law as evidence of non-acceptance.

[6] Treaty negotiation can be a long-winded and highly politicized process. In PIL, the more countries involved, the more protracted and 'watered down' a treaty tends to become, which is not a problem with custom.

[7] Naturally arising from practices of the most relevant parties and hence most likely reflecting the most acceptable practices for them.

[8] Identification of custom and speed of identification may be subject to the same limitations as for PIL – but with advances in technology and empirical study, it may yet happen. In fact, it can be more easily evident than traditional trading behavior, and be easier, less expensive and faster to track or decipher with the right technological applications and empirical tools. The cumulative opinions and decisions of tribunals, government studies, public or privately sponsored commercial or academic research, both empirical and legal, will also be the building blocks for customary Internet-ional law.

main challenge for customary law-making and it is also important given the objectives for using custom in the first place, which is to achieve clarity of law so as to quicker harmonize behavior and decision-making. It is meant to achieve both a reactive role as well as an active one. Custom is an accelerator for norm creation, hence early identification and even forecasting trends and foreseeable norms in their infancy are crucial in optimizing its use. Custom also serves an interpretative and clarifying function to written laws and it can serve to complete and interpret private arrangements such as contract clauses. It also fills in the gaps of regulations and laws already in place and in this regard, play a complementary role.

2.2. *Personalities and stakeholders*

Although states are not the only entities with international legal standing and are not the exclusive international actors under PIL, they are the primary subjects of that legal regime and possess the greatest range of rights and obligations. This is applicable to all sources of PIL including CIL. Unlike states, which possess rights and obligations automatically, international organizations, individuals, and others derive their rights and duties in international law directly from particular instruments. Individuals may, for example, assert their rights under international law under the Human Rights treaties.[9] On the other hand, the proposed Customary Internet-ional law is the opposite with the dominant force of law-making being 'bottom up'. This means that relevant individuals and other entities using the WWW and other forms of electronic communication, in the form of collective behavior, have the greatest power to determine norms, more so than intermediaries or the government. As identified earlier, the intermediaries, in particular the technology creators and dominant Internet service, access and content providing entities have a strong influence as well in shaping the behavior and attitude of individuals and other entities. Finally, there is the top-down rule-making role of the government, which has more of a power of immediate and direct law-making, but one that is more based on treaty and explicit forms of rule-making than custom, and that also has a supervisory role in overseeing and controlling the intermediaries' influence as well as the behavior of individuals and various components of the private sector.

2.3. *The matrix for the formulation of customary 'internet-ional law'*

2.3.1. *General considerations*

First, let us discuss the 'form' that Customary Internet-ional Law-making rules should take. It is proposed that, just like Customary International Law and its relationship with other sources of law are written under Article 38(1) the Statute of the International Court of Justice (ICLS) and treatises, Customary Internet-ional Law should be recognized as a legitimate source of law with other established sources of law under some form of ''Charter for International Cooperation on the Internet''. This should be enunciated and promoted under the auspices of an inter-governmental forum, perhaps under an existing PIL institution, in particular one that is formulated under the United Nations umbrella. This is to give it the strongest and most wide-scale and populist form of legitimacy and to ensure the highest level of recognition and enforcement of customary Internet law on a global scale.

There must be a clear understanding of the general premise, foundation and objective of Customary Internet-ional Law. The objective is simple, which is to express the law so as to achieve certainty and predictability, to provide impetus for the further development of Internet law, to contribute to a comprehensive body of Internet law and to promote harmonization of laws worldwide.

The role and relationship of Internet custom to other sources of law must be enunciated. Customary Internet-ional Law is supplementary and complementary to other sources of law. The system or hierarchy should resemble that under PIL and even under domestic laws for consistency and constancy. Written law shall remain the primary, but not necessarily the dominant, source of law[10]; followed by custom as interpreted by decision-makers such as judges or alternative dispute panels and identified by publicists, the latter of which should provide by default the volume of evidence on Internet legal norms.

In the event of an apparent conflict, supplementary rules should kick in to determine which source trumps the other as well as which law in time is applicable. In short, the source of law higher in the hierarchy trumps the lower one, the law later in time trumps the earlier one, and some laws are universal and supreme over all others and cannot be superseded. We shall now consider this in greater detail.

2.3.2. *The hierarchy of norms*

Where there is no conflict, customary law and treaty law are equally authoritative and are consistent and complementary. In such situations, custom can supplement existing laws by filling in the gaps and elucidating ambiguities whether expressly referred to (*consuetude secundum legem*) or derived from implication even if not so referred to (*consuetude praeter legem*).[11] However, there is the possibility of a conflict of norms such as in a situation where governments are trying to create and impose norms based on socio-political policy or for commercial interests that are meant to change existing customary practices; or where treaty law lags behind changes wrought by new technology and seismic changes in behavior.[12] These two examples illustrate how conflicts can

[9] See the International Covenant on Economic, Social, and Cultural Rights, available at: http://www.unhchr.ch/html/menu3/b/a_cescr.htm); and the International Covenant on Civil and Political Rights, available at: http://www.unhchr.ch/html/menu3/b/a_ccpr.htm), both of which entered into force in 1976.

[10] Including as it is interpreted by the courts.

[11] This is common in contract law. An example of a supranational legislation is Article 8(3) of the Vienna Convention on Contracts for the International Sale of Goods and a national common law illustration is the use of implied terms for business efficacy (through the officious bystander test).

[12] *Consuetude contra legem*. Where custom is in direct conflict with legislation (*custom contra legem*) the latter normally prevails; but in some instances a custom supersedes prior legislation (abrogative custom) like desuetude or abrogative practices in relation to obsolete legal provisions or instruments. See Francesco Parisi, *The Encyclopedia of Public Choice* (Charles K. Rowley & Friedrich Schneider eds., Springer 2004).

arise due to differing stakeholder interests and changes through the passage of time respectively. In such cases some form of hierarchy of norms and rules to resolve such conflict have to be promulgated if they should arise.[13] How conflicts arise and the manner and order they arise are determining factors for which norm prevails.

There need not be any real conflict between customary law and other regulatory devices if the right hierarchical rules are set in place. As guidance, we can look at the rules in PIL that determine which supersedes the other in the event of an apparent conflict, thus neutralizing or resolving the conflict. To such an end, the following hierarchical principles should apply to Customary Internet-ional Law vis-à-vis treaty law:

1. If there is a conflict between customary and treaty law, all other things being equal, the latter shall prevail. This is so even if government policy is out of step or out of sync with public or private perception and interests. The best example is the tension between the general Internet community and traditional copyright holders.[14] This is consistent with PIL principles under the S.S. Wimbledon case of 1923.[15] The reason for this, despite the importance of heeding the collective will of the global society, is based on several factors: The legitimacy and power of representation vested in democratically elected governments to best represent the interests and opinions of its people, the recognition that active progressive laws seeking to influence change has a larger purpose than reactive or codifying laws such as custom, and if there is any disagreement with such policies, such changes can and should be made by working within the existing legal system and political framework.[16]
2. If there is a conflict between customs over time, the later in time shall prevail. Sources that are of more recent origin are generally accepted as more authoritative. This is logical given that custom itself is fluid and subject to change. In such a case, the conflict is really a false conflict as the earlier customary norm has in fact ceased to exist, giving way to the newer evolved custom. An apparition of conflict arises because detection of the change will always lag behind actual change itself. Hence the challenge again is in evidencing change and in certain cases; it is the emergence of new technologies and functionality in the case of the Internet infrastructure that is driving change.
3. If there is a conflict between customary and treaty law over time, and,
   a. if treaty law comes after customary law, the former shall prevail as it is clearly a policy decision to alter and arrest the development of custom law in the manner that it had;
   b. if custom developed since treaty law, the former shall prevail as the treaty law will be considered to have lapsed or become redundant due to subsequent developments (i.e. desuetude, or having fallen into disuse).[17]

   These positions are more controversial as proponents of custom and of communitarian values will argue that custom should prevail in both instances, while opponents will argue that written law should prevail in all cases over custom.
4. In relation to all sources of law, the specific rules take precedence over general rules. Under PIL, *Jus Cogens* or ''compelling law'' are peremptory norms that cannot be deviated from by states.[18] They possess a higher status than *jus dispositivum* or ''law subject to the dispensation of the parties''. It can only be altered by subsequent norms of the same status. For a *Jus Cogens* norm to be created, the principle must first be established as a rule of international law and then recognized by the international community as a peremptory rule of law from which no derogation is permitted. Its relevance to Internet law is limited to what is currently already covered under PIL albeit in a different fora and as such it may not have a significant role to play here.[19] PIL has also established a category of *Erga Omnes* obligation owed ''toward all'', which is a concept that basically addresses certain obligations as the concern of all and that applies to all states. Whereas in ordinary obligations the defaulting state bear

[13] P.P. Polanski, *Towards a Supranational Internet Law*, JICLT Vol. 1 Issue 1 (2006) pp.3–5, available at: www.jiclt.com/index.php/JICLT/article/viewPDFInterstitial/8/7.

[14] E.g., restrictive copyright provisions to combat technological ease of file transfer and sharing, such as through the enactment of Digital Rights Management (DRM) laws are perceived as draconian and with suspicion by consumers but have been haled into law by governments and supported by the profit-driven copyright industry. However, in recent years, there has been a retreat on the stance taken in relation to DRM and a re-think of its advantages and justification of its use.

[15] *Case of the S. S. ''Wimbledon''*, PCIJ, Ser. A., No. 1, 1923, available at: http://www.worldcourts.com/pcij/eng/decisions/1923.08.17_wimbledon.

[16] If there are disagreements with a policy or laws and their objectives, legislative democracies do allow for public consultations, discussions and legislative amendments and even electoral voting to address and redress the issue. An example of working within the system to elicit change is the Creative Commons movement, which licenses are consistent with Copyright Laws but that encourage relinquishment of such rights in contrast to infringement activity.

[17] Hence, if the treaty law under 3a. does not lead to its desired result or objective and after some time there is still widespread disregard, it may be argued that custom that existed earlier continues to apply and hence supplant or overshadow the legitimacy of the treaty law. This is controversial as it obviously prefers the decision-making power of the masses over that of governments, and the argument is even stronger if there is a lack of enforcement. A good case study on this is the issue of the law relating to Peer-to-Peer (P2P) technology in the exchange of digital works and the earlier lack of enforcement against individuals.

[18] These have to be important norms that are fundamental to the integrity and existence of the digital age and its environment and that is not susceptible to change, especially positive change. Under PIL, these norms are binding on all states regardless of their consent. The international principle of *jus cogens* mandates that certain forms of behavior are not tolerated to any extent. There is the lowest common denominator effect though as it will still be limited. Examples include various international crimes such as piracy, slavery, genocide, apartheid, terrorism, wars of aggression, torture and other crimes against humanity.

[19] It can perhaps be used as a basis for regulating speech content on the Internet but this is controversial as many countries still practice censorship and content regulation of the Internet according to their own terms.

responsibility toward particular interested states, for example, other parties to the treaty that has been breached; in the breach of *Erga Omnes* obligations, all states have an interest and may take appropriate actions in response.[20] The role of such higher norms will have to be assessed as to their appropriateness and usefulness to the Internet context. Perhaps fundamental underpinnings of the Internet Infrastructure and principles governing WWW transactions can be considered for such status based upon universality of recognition and its intrinsic value and vital importance to cyberspace transactions.[21] Finally there is also an overarching duty on stakeholders to observe the principle of *Pacta Sunt Servanda*, which is the principle of bona fides or good faith requires obligations to be respected, be it under private contracts in civil law or transnational agreements in PIL. This principle is applicable to the law on treaty or convention rather than customary law.

2.3.3. *The elements of customary 'internet-ional law' and the treatment of other concepts*

After considering the similarities and differences between real world and cyber world transactions and contexts as well as taking into account the national interest dimension, the following are modification of the rules on the creation and identification of custom to render it more suitable for the needs of cyberspace, to meet the objective of nurturing its growth and to establish and maintain an orderly and stable digital environment. The main features and basic characteristics of PIL and its applicability to Customary Internet-ional Law will now be considered in more detail. The craftsmen's considerations are taken into account in the formulation of the below customary norm creation principles.

CIL under PIL is created by two main elements: State Practice and *Opinio Juris*. Customary Internet-ional Law shall likewise be created by the examination of behavior and attitude, to be known as Internet Practice and *Opinio Juris* but with the following necessary modifications for the reasons as stated:

1. Expansion of Stakeholder *Personalities*: There should be a bottom-up approach with the behavior and attitude of individuals being the primary source for determining common practices and legitimizing obligations. This is followed by the acts and intentions of intermediaries such as service, access or content providers and hosts, and technology creators. The government and international organizations will take on a secondary and more supervisory role rather than a primary law-making one such as in formulating policies to steer or influence stakeholders and trends; to support research, identification and the codification of norms; and to progressively advance the law.[22] Such a largely bottom-up approach acknowledges that cyberspace is a suitable dimension to revisit communitarian society and values and is in line with the theme of a global consciousness where the digital citizen is the global citizen and should have a say in the international norms that are applicable to them.

   The role of the intermediaries and architects of information technology is more complicated.[23] Giving these intermediaries unfettered powers of creation may lead to abuse and undue influence on the development of custom. Governments have been grappling with their role and the limits of their liability since the popularization of the Internet and WWW, with the concomitant problems it poses to the *status quo*. As noted, governments are in the position to influence the role of intermediaries so as to constrain their absolute freedom, based on policy and driven by public interest considerations that transcend the myopic interests of any one stakeholder. Also, the separation of powers as a check on the proper exercise of intermediary powers is why the requirement of *opinio juris* that mostly lie with the people towards Internet practices is still necessary. In a sense, it ensures a separation and balance of powers because it is easier to influence behavior than it is attitudes, which legislators are well aware of. This leads to the question of the definition and scope of Internet *opinion juris*, in particular, the status of acquiescence as previously noted, which will be considered after we examine Internet practice as a requirement.
2. The Practice and Opinion of the *Relevant* Stakeholder: In relation to both practice and *opinion juris*, it is only the actions and opinions of the relevant stakeholders that will be relevant. Since in most cases non-relevant stakeholders will neither be involved in the practice in question or have an opportunity to state an opinion whether by word or deed, this is more likely than not a moot point.
3. Internet Practice and 'Instant Custom'[24]: Customs are legally relevant, common and widespread practices that come with the attitude or expectation that it should be observed. The requirement of a sufficiently widespread relevant practice means that a given practice is widely followed in space and time especially by those that have an interest in its development and effects. A practice is

[20] This term gained prominence in the *Barcelona Traction* case. It refers to obligations that are the ''concern of all states'' and hence ''owed towards the international community as a whole''. ICJ Reports 1970, 32–33 (paras 33–34). This doctrine is more useful and appropriate for certain categories of law such as criminal law.

[21] E.g., the ''functional equivalency'' principle in electronic transactions law, general immunity for access providers under content regulation laws, the caching exemption to copyright infringement under copyright law and the general right to operate a website and to provide hyperlinks for navigation in relation to the Internet infrastructure.

[22] E.g., by rarely but possibly overriding customs that may be deemed unacceptable in the wider scheme of things through resorting to treaty law-making in a bid to 'change' custom.

[23] In fact, some examples exist to substantiate the importance of these constraints and requirements, such as the laws limiting liability and responsibility of intermediaries and the fiasco of unfettered permissiveness offered to technology creators in relation to Digital Rights Management (DRM) under copyright law, which should be subject to greater regulation and scrutiny, and that is facing increasing resistance and challenges.

[24] A norm can be permissive or prohibitive. In other words it can allow something to be done or prohibit something that ought not to be done. An action can also constitute an omission. For example, prohibitive norms arguably exists in relation to the use of spyware or spam.

widespread if it has a global, regional and even a national character in relation to the spatial element,[25] and if it is followed intensively over a period of time although this time period element is subjective.

In relation to space, the problem is with computer infrastructure, connective penetration and the lack of a level playing field, but this is a problem that is endemic to PIL as well and is not new. How widespread a practice is sufficient to justify universal Internet practice as to form customary internet-ional law will depend on the Internet community at any point in time. Unlike PIL which looks at government action of all states, here we look at action of all parties that are using the Internet at any point in time; but like PIL, it is more pertinent to consider and weigh heavier the actions of *relevant* actors to the practice in question. For instance, the actions of a community using social networking applications will be relevant to derive norms relating to that particular field.

In relation to time, in the context of electronic transactions where volume and speed is a key advantage, it should not require longevity of practice as essential to the development of custom even though that is a common feature of CIL development under PIL. The quantity, persistency and repetitiveness of practice as well as the quality of practice such as its pervasiveness through the actions of relevant parties will have to be examined. With the quality and extent of practices being key and the speed of Internet transaction and development as well as penetration and usage increasing tremendously, 'near instant custom' will perhaps be the norm rather than the exception for e-custom, provided that detection technology can improve likewise.[26]

4. Internet *Opinio Juris* and Acquiescence as Consent: We have already explained the continued need for, but challenges towards implementing this element of Customary Internet-ional Law. On the one hand, behavior is not often followed by expressed intention and approval; hence silence may not mean real consent. On the other hand, if acquiescence is not consent, then it is very difficult to evidence any development of custom in the first place. 'Netiquette' is one example of the development of culture that has become inculcated in online users. A relaxation of the principle to one of an expectation or attitude towards a practice and its observance is more realistic and practical, and it will also explain the use of acquiescence to substantiate a norm. This is where the suggestion of a *prima facie* presumption of consent through acquiescence will be useful.

A possible compromise may be that acquiescence in all its forms, whether it be tacit acceptance or wearied capitulation, is generally consent but is limited by two exceptions that can rebut the presumption of consent: First, when government policy clearly provides otherwise, for instance through the criminalization of a certain practice; and second, if society, including segments identifiable by subject matter or jurisdiction, objects to such practices *even if* they may have to conform to it in practice perhaps because there are no viable options or alternatives.[27] This leads us to determine the extent of the role of the ''Persistent Objector'', which under PIL was only applicable to governments. Either a whole identifiable segment of Internet society, determinable by different methods and not necessarily by geography such as by subject matter; or governments, intervening through practical policy and rule-making measures, should be able to 'persistently object' to a particular practice. In such a case it has two effects, one *certain* and the other *possible*. The certain effect is that that custom does not apply to the subjects or jurisdictional realm in question, the possible effect is the weakening of the case for the practice in question to be recognized as an Internet-wide custom to begin with.

3. A suite of customary 'internet-ional law': existing practices that can be identified as Internet custom

Custom has to be identified and catalogued through both legal and non-legal avenues such as through academic research and writing, judicial and arbitral decisions, and social and empirical studies. In the process, it is vital to extensively examine the trends and direction of technological creations, the practices of intermediaries, individuals and other relevant entities and government policies.

3.1. *Different areas of law*

Some of the areas of law for which emerging customary norms can be identified will be listed in this Part. However, it must be qualified that more empirical evidence and research is necessary in order to substantiate how widespread their

[25] In electronic commerce, the practice has a global character if it is observed by the Internet participants of all types and the majority of industries in the world. It can also exhibit a particular character if it is peculiar to a number of companies exhibiting some commonality, for example, companies that are confined to one or several industries or to one or several geographical regions, perhaps in accordance with country-level domain names. The practice has local scope if it occurs between two or only a few trading participants. See P.P. Polanski, *Evidencing Trade Usages: The Case of Encryption Practices in Internet Banking*, International Journal of Technology Transfer and Commercialisation, Vol. 6 No. 1 1–12 (2007) and P.P. Polanski, *Common Practices in the Electronic Commerce and Their Legal Significance*, 18th Bled eConference eIntegration in Action, Bled, Slovenia, 6–8 June 2005 at p.3.

[26] This question relates to the speed of development of norms and the use of empirical research to complement legal jurisprudence. Near 'instant' development of norms should be allowed, and this can even be the rule rather than the exception in the electronic transactions context. Research can 'backdate' the effectiveness of a custom since evidence always follows practice.

[27] There are clear instances where we can identify objections both by the governments and society at large, such as in relation to the practice of sending spam and where duress or undue influence are exercised to engender conformity to a particular practice. Furthermore, the idea of *opinion juris* as a subjective element, which already gives rise to problems in PIL, is exacerbated in the digital realm for the same reasons as mentioned above. Refusal to conform through withdrawal from a practice, by boycotting the practice or seeking alternative options, is another way of evidencing objection.

observance and acceptance is, and thereby 'quantify' the strength of the custom and its status of development as a legal norm.

3.1.1. *e-Commerce and contract*[28]

So far, the areas of law that have seen the most global action in terms of an international legal framework for electronic transactions are in the areas of electronic commerce and intellectual property. However, even then, only very basic and voluntary frameworks which require transposition into national law have emerged. In the case of e-commerce, these instruments are the UNCITRAL Model Laws on Electronic Commerce and Signature as well as the Electronic Contracting Convention or CUECIC, which contains the most fundamental and important principles relating to electronic contracting and commerce, including electronic signatures and records, mainly through the legal recognition of electronic records, signatures and contracts.[29] The CUECIC is partly a reflection of codified customary practices as well as a progressive legislation,[30] although it also has its shortcomings and limitations such as its limited effects and low level of subscription by states. On the regional level, the EU has taken the lead in other developments on e-commerce.[31]

Contracting parties' specific rights and obligations vis-à-vis one another are still largely left to the merchants to set out in their contracts in the case of B2B or C2C transactions. In B2C situations, the business transaction models of the leading and dominant commercial entities in the industry are instructive,[32] particularly those that have established an early presence on the Internet commercial marketplace. In all these types of transactions, uncertainties have emerged which require solutions in order to address the perennial market concerns of predictability in transactions. In cases where a formal contract does not exist or where the terms of the contract prove inadequate to address the issue, disputes may arise in relation to the subject matter or to the course of transaction itself.

When it comes to transnational trade, it is unavoidable that the role of the World Trade Organization (WTO) and other major trade bodies and institutions will play an important role in shaping the rules for such transactions. Indeed, the WTO has been involved in developing rules governing international trade in e-commerce under its existing regime for some time.[33] These organization will have an important role to play in the development and identification of both online and offline trade customs.

The areas of electronic contract law that require elucidation through custom are such as those relating to time and place of offer and acceptance in relation to various forms of electronic communications,[34] the sufficiency of consideration in different types of cyberspace interaction and transactions,[35] the importance of proving intention to create legal

[28] Trade customs and usages is already an acknowledged and important source of contract law and are sources supplementing contractual arrangements between private parties in the major legal systems of the world, namely civil and common law systems. E-commerce customs are important (e.g., the EU Directive on Electronic Commerce explicitly states that member states of the European Union should exchange information on the practices and customs of online merchants). Some of these customs have already been turned into model laws or treaty law and continually evolving custom will be useful resource for the future work of such international organizations as UNCITRAL AND UNIDROIT, which roles are to draft laws to facilitate international trade and commerce.

[29] The Model Law on Electronic Commerce (MLEC) was adopted by United Nations General Assembly in December 1996 and is available at: http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce.html. The Model Law resolution is based upon two principles: functional equivalence (i.e. electronic documents are the same as paper documents) and technology neutrality (i.e. all the provisions are applicable irrespective of the technological progress). There are also the Model Law on Electronic Signatures, adopted in 2001 and a Recommendation on the Legal Value of Computer Records made in 1985. The United Nations Convention on the Use of Electronic Communications in International Contracts of 2005 (CUECIC) is different as it is a convention that serves more than just as a template but that is available for accession whereby countries will be legally bound under International Law to transpose it into domestic law.

[30] Charles H. Martin, *The Electronic Contracts Convention, the CISG, and New Sources of E-Commerce Law*, 16 Tul. J. Int'l & Comp. L. 467 (2008).

[31] The importance of the Electronic Commerce Directive is that it is the first mandatory, transnational recognition of electronic contracts cutting across Civil and Common Law contractual traditions and creates a uniform e-commerce law through a wide swath of Europe. The regulation affects European Union countries and is highly influential on other countries, in particular candidate states to the EU, and is thus an important step in promoting a uniform set of rules for global digital trade.

[32] Such as Amazon.com for online sale of books and music, Ebay.com for Internet auctions and Google and Yahoo! For Internet search engines and news aggregators. In relation to non-commercial websites, Wikipedia is the most prominent and popular portal for Internet encyclopedia and Facebook and MySpace are leading social networking sites. All these websites contains terms of use, service or transaction.

[33] Kristi L. Bergemann, *A Digital Free Trade Zone and Necessarily-Regulated Self-Governance for Electronic Commerce: The World Trade Organization, International Law, and Classical Liberalism in Cyberspace*, 20 J. Marshall J. Computer & Info. L. 595 (2002).

[34] Such as the effects of the electronic mail, instant messaging, short message service or other methods by which invitations to treat, offers and acceptances are communicated. First, the distinction between those elements may be different in the online context, and second, the time and action that rationalizes them may also be different; particularly in the case of acceptance under common law where either the communication or postal acceptance rule can apply but which status is still unclear for electronic communications. The difference can be important for conflict of laws and jurisdiction purposes. However, for more sophisticated transactions, business models have developed in many ways that provide for clearer steps in the course of a transaction and in the formation of a contract such as the step-by-step transaction summarization and contract confirmation practice of Amazon.com. On the other hand, other emergent business models such as eBay.com and its various transacting options for auctions require a reassessment or a fresh assessment of when each stage of an agreement is met.

[35] E.g., is merely reading information provided on a website sufficient consideration moving from the provider to the reader as a benefit and is the creation or collation of such information of sufficient detriment to the provider. Note that this issue is only applicable to common law contract formation principles that contain the consideration requirement.

relations and capacity,[36] implied terms,[37] the incorporation of terms,[38] and the status of digital goods and services,[39] whether under the Convention on the International Sale of Goods (CISG)[40] or other treaties.[41] Other issues include the proliferation of input errors and mistakes in electronic transactions, and the legality and role of automaton and in automatic transactions. There is also a proliferation in the use of licenses to restrict and control contractual rights over good and services, which also comes with its own set of issues.[42] This is an area that will be examined in greater detail for customary rules later in this paper.

3.1.2. *Intellectual property*

The other area of law and policy that have had the greatest impact from the digitization of communications media and products, due to the changing nature and landscape of goods, services and conduits, is in the field of Intellectual Property Law, in particular copyright law. In effect, the conflict with the conventional copyright law and regime is due to the foundational premise of Internet operation. The former operates as an 'opt-out' system locking in rights by default for creators of works, whereas the Internet and World Wide Web (WWW) network of communications as well as digital communications and transfer technology is largely based upon a free-for-all system that prefers an 'opt-in' system and self-help measures for rights protection in order for optimal functionality.[43]

We already see the rapid development of piecemeal law-making that seeks to reconcile the international copyright and information technology regimes through direct exemptions,[44] under the WIPO treaties and national legislation, such as the United States' Digital Millennium Copyright Act (DMCA)[45] dealing with facets of the Internet infrastructure. These legislated exceptions are consistent with custom and are integral to the fundamental workings of the Internet and the WWW and also will be considered below in the context of the Internet infrastructure and architecture.

Some major additions to copyright law, such as that relating to Digital Rights Management (DRM) and laws against Anti-Circumvention Measures (ACM) are actually

[36] There is a multiplier effect in online transactions due to the ease of transacting and this together with the ease of replication and shipping for digital goods and services can provide a different gloss on what constitutes intention to create legal relations. This requirement may also cause problems for services information websites and other 'passive' websites. Moreover, in relation to capacity, the Internet generation is more sophisticated and savvy at a much younger age, for example selling products, services and advertisements online, which may require a re-thinking of the age of majority for capacity to contract. In fact, for example, Singapore is revising its laws to lower the age of majority in relation to contract law, which is currently twenty-one.

[37] See below on the status and effects of terms of use or service and other terms or policies under ''Internet Infrastructure''.

[38] Particularly the effects of browse-wrap and click-wrap agreements and other forms by which notice is given under electronic commerce contracts.

[39] The challenge here is to determine the status of products delivered through the Internet in digitized form or e-products. E-products now include software, books, music, videos, and other newly emerging media, some of which have evolved to this stage while others have been developed in such a form. Currently they allow for the removal of hurdles such as customs regulations and duties and quality standards. An Organization of Economic Cooperation and Development (OECD) report referred to e-products as ''fuzzy products''. See Julia Nielson & Rosemary Morris, *E-commerce and Trade: Resolving Dilemmas*, OECD Observer 11 (1 January, 2001), perhaps best describing the legal uncertainties surrounding the status of such products. E-services have also developed with the same or similar issues.

[40] The United Nations Convention on Contracts for the International Sale of Goods, 11 April, 1980, U.N. Doc. A./Conf. 97/18 (1980) (CISG) is available at: http://www.uncitral.org/english/texts/sales/CISG.htm. See also, Charles H. Martin, The Electronic Contracts Convention, the CISG, and New Sources of E-Commerce Law, 16 Tul. J. Int'l & Comp. L. 467 (2008). ''A non-treaty source of international electronic contract law might be referred to in a treaty as a general source of treaty interpretation, as in CISG article 7, or to supplement a treaty rule, such as the contract interpretation rule of CISG article 9(2), or the CUECIC article 9 test of appropriate reliability of the method of identification used for an electronic signature. CISG article 4(a) states that, except as otherwise expressly provided, the CISG ''is not concerned with … the validity of … any [trade] usage.'' CISG article 8(3), however, provides: ''In determining the intent of a party or the understanding a reasonable person would have had, due consideration is to be given to … [trade] usages.'' Furthermore, CISG article 9(2) provides: The parties are considered, unless otherwise agreed, to have impliedly made applicable to their contract or its formation a usage of which the parties knew or ought to have known and which in international trade is widely known to, and regularly observed by, parties to contracts of the type involved in the particular trade concerned. Supplementation of CISG article 18(3) by trade usage is explicitly permitted regarding offeree assent by an act without notice of the act to an offeror. Therefore, the CISG clearly permits its supplementation by customary international commercial law in the form of trade usage, both generally and specifically, to provide evidence of party intent.'' *Ibid*. at 477–478.

[41] See e.g., The Hague Convention on the Law Applicable to Contracts for the International Sale of Goods, 22 December, 1986, available at http://www.hcch.net/e/conventions/text31e.html. See also, Mario J.A. Oyarzabal, *International Electronic Contracts: A Note on Argentine Choice of Law Rules*, 35 U. Miami Inter-Am. L. Rev. 499, 504–509 (2004).

[42] For example, on the one hand, there is an increasing use of permissive and implied licenses, which is a form of contract, relating to the relinquishment of copyright in digital literature and pictures or photos as well as in user-creator media, with its culture of sharing. On the other hand, there is ongoing resistance to the digitization of music and film by the creative industry and the concomitant restrictive licenses promulgated by them. These show the inherent conflict and schizophrenia that the creative industry has towards new media. There is interest and excitement tinged with caution and suspicion. This example also shows the interface between contract law, which applies to licenses, and intellectual property law.

[43] See John S. Sieman, *Using the Implied License To Inject Common Sense into Digital Copyright*, 85 N.C.L. Rev. 885, 887–893 (2007). The implied license can be a fictional construct when applied to the relinquishment of copyright unless custom is used to rationalize it. On the 'opt-out' versus 'opt-in' issue, consider the model put in place by Google for its online library project, which is based on an 'opt-in' to copyright approach.

[44] E.g., the caching exemption which is integral to the functionality of the Internet and the World Wide Web (WWW), and which is not possible if it is not made an exception to the right to copy that is exclusive to the copyright holder and that is applicable to intangible digital representations of works.

[45] 112 Stat. 2860 (1998). The full text of the statute is available at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=105_cong_public_laws&docid=f:publ304.105.pdf.

developments largely to counter the perceived threat to copyrights due to the onset of the era of digital technology. The removal of statutory formalities rendering the system a protectionist full-rights default system, the extensions in the duration and rights protected, the development of pro-copy protection laws, and other measures are directly in conflict with the rise of a global consciousness and environment that is conducive for a culture of sharing and communal property, which is already reflected in changes to the fair use/dealing doctrine and factors analyses conducted by the courts, such as the invention of the ''substantial non-infringing use'', ''transformative use'' and ''non-inducement'' doctrines in the United States courts. It is also inconsistent with the free software, open source, free culture and the Creative Commons movements to different degrees, with their varying approaches of divergence from the copyright regime.

The statutory changes to accommodate the functionality of the Internet that are in direct conflict with fundamental principles of copyright law,[46] the role of fair use/dealing,[47] and the proliferation of certain types of explicit and implied licenses,[48] are evidence of a move away from the *status quo* and are concessions to other interests in the face of the expansion of copyright protection under written law. Ironically, the concessions to the Internet and the efforts to strengthen copyrights in other sectors arguably constitute proof of a divergence between custom and written law, and the issue will likely have to be resolved through the application of the principles relating to the hierarchy of norms.

In the meantime, the march of custom proceeds to change the scope of rights and defences relating to copyright law. We are already familiar with the fair use or dealing defence and the various tests that emerged from its analysis. Another example is the emergence of an implied license doctrine. The development of an ''implied license'' defence to copyright infringement in the U.S. case of *Field v. Google, Inc.*[49] shows some resemblance to the characteristics of customary law and also illustrates the power and willingness of technology creators and innovators to challenge current notions of what is fair in relation to copyright protection, which has so far mainly been dictated by the profit-driven creative industry players.[50] The implied license doctrine is representative of a rule arising out of custom that plays the role of a gap-filler to sanction the common Internet practices of web browsing, web indexing, and automated language translation of content on the WWW.

3.1.3. *Privacy*[51]

Privacy issues arise in many different scenarios. Providing information while surfing the Internet implicates privacy concerns with many websites now containing a set of website privacy policies.[52] Privacy issues also arise from the use and function of the Internet itself. For example, the implantation of ''Cookies'' and of various forms of spyware into a user's computer with the purpose of tracking their Internet use and personal particulars, whether surreptitiously or with 'consent' have privacy implications.[53] On the one hand, ''Cookies'' are well known and can be an accepted or unacceptable practice

[46] The most prominent is the right to make copies of online material without having to actively seek permission for the purposes of providing and obtaining access as well as to archive published materials for various purposes (including for indexing, research and scholastic purposes). Although caching is now explicitly permitted and exempted from the general prohibition against copying, it does not cover all these scenarios. See the 1996 WIPO Copyright treaty, available at: http://www.wipo.int/treaties/en/ip/wct/trtdocs_wo033.html; and the U.S.'s Digital Millennium Copyright Act 112 Stat. 2860 (1998), available at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=105_cong_public_laws&docid=f:publ304.105.pdf.

[47] I.e., the export of an open and flexible fair use doctrine to fair dealing countries, the expansion of factors for analysis by the courts and the creation of new principles such as the doctrines mentioned in the previous paragraph.

[48] For explicit licenses, the study of the use of Creative Commons (CC) license templates with their largely uniform terms can provide proof of custom as to the limitation of copyright protection. For implied licenses, for example, it is implicit in the opinion of the majority decision, according to Judge Feiken, in the case of *Lexmark International, Inc. v. Static Control Components, Inc.*, 387 F.3d 522 (6th Cir. 2004), that an implied license allowed buyers of Lexmark printers to use the product for its lifespan, which extends to the use of the software that controls the printer and its use such as the use of enabling technology like a chip that allows refill using third-party ink (this in spite of an explicit clause under the shrink-wrap agreement).

[49] 412 F. Supp. 2d 1106 (D. Nev. 2006). See also the analysis in John S. Sieman, *Using the Implied License To Inject Common Sense into Digital Copyright*, 85 N.C.L. Rev. 885, 906–929 (2007).

[50] The case involved Google's caching and indexing practice, which basically makes and provides copies of WWW content without permission, with the compromise that content creators can 'opt-out' of being cached and indexed by following certain procedures. This position would technically infringe copyright law, which reserves the right to copy to the copyright holder. However, the district court in Nevada found in favor of the defendant stating that Google did not directly infringe Field's copyright; and even it if had, it could succeed on any of four defences, namely the implied license defense, estoppel, fair use or the § 512(b) safe harbor. In relation to the first defence, the court developed the implied license doctrine partly based on the language from the earlier case of *Keane Dealer Services, Inc. v. Harts*, which stated that consent given by lack of objection can create an implied license. It formulated a new two-part test for implied license that allows an implied license to be found when the copyright holder ''knows of the use'' and ''encourages it'', which is different and much broader than the traditional *Effects Associates* test.

[51] See generally, Joshua S. Bauchner, *State Sovereignty and the Globalizing Effects of the Internet: A Case Study of the Privacy Debate State Sovereignty and the Globalizing Effects of the Internet: A Case Study of the Privacy Debate*, 26 Brooklyn J. Int'l L. 689 (2000).

[52] Marcelo Halpern, Ajay K. Mehrotra, *From International Treaties to Internet Norms: The Evolution of International Trademark Disputes in the Internet Age*, 21 U. Pa. J. Int'l Econ. L. 523, 536 (2000). Internet users have come to expect privacy and confidentiality in the information that they provide and some principles of privacy, confidentiality through data management and protection has become the norm. Privacy issues also overlap with the issues of incorporation through terms if they are stated in terms or policies.

[53] See e.g., Matthew C. Keck, *Cookies, The Constitution, and the Common Law: A Framework for the Right of Privacy on the Internet*, 13 Alb. L.J. Sci. & Tech. 83 (2002).

depending on the specific use.[54] The subject have been even been legislated in some countries such as the U.S. and E.U. although not comprehensively given the breadth of its scope, but what is clear is that it is permitted in certain cases.[55] On the other hand, the trend in relation to other forms of spyware, including adware and other tracking devices, is that they are not wanted or permitted.[56] Although ''Spam'',[57] which is the abuse of electronic messaging systems to send unsolicited bulk messages indiscriminately, seems to be anathema to users, it is complicated by a global network of ''Opt-In'' and ''Opt-Out'' legislation that are politically influenced, with the latter actually having the effect of giving legal status to, and have the effect of permitting and even encouraging, ''Spam''.[58] Hence, this is an area that also has many contradictions in top-down formal legal approaches, for which the largely envisioned bottom-up approach of custom can be an instrument of cohesion.

3.1.4. *Computer and cyber crime*[59]

Criminal law is an area that has a rich history of development under customary international law. Computer misuse legislation has also developed in a similar manner although laws combating cybercrime is still largely dealt with in the national domain.[60] The main instrument that has arisen in relation to the latter on the global stage is the Cybercrime Convention. On 23 November, 2001, in Budapest, Hungary, the Council of Europe opened for signature the Convention on Cybercrime,[61] which defined international computer and cybercrimes, provided for domestic criminal procedural law powers, and aimed to further international cooperation involving cybercrimes.[62] The problem is that it is not comprehensive or reactionary enough and not extensive in application as it requires state accession before they are obliged to implement these rules as law.[63]

3.1.5. *Other areas of law*

Other prominent areas of law that require changes to suit the digital environment or that require changes in the digital framework to suit their objectives include: Tort Law and Content Regulation Law, in particular those that require geographical community standards to be determined and that have geographical implications; Jurisdiction, which requires a private international law solution[64]; Tax Law such as on the issue of customs moratorium on Internet commercial transactions; Unfair Competition Law, which overlaps with intellectual property rights and Internet framework issues; Dispute Resolution[65]; and so on.

There are also new areas of law that have developed directly out of the digital age and its functionality and environment, even though they may bear some relation in objectives or concepts to existing areas of law. For example, the gateway or address to Internet websites is operated by the

[54] The terms ''HTTP Cookies'' or ''Cookies'' in short are derived from the ''Magic Cookie'', a well-known concept in UNIX computing. It performs a tracking function and describes the parcels of text sent by a server to a Web client, such as a browser, which are then sent back unchanged by the client each time it accesses that server. ''HTTP Cookies'' are used for authentication, session tracking or state maintenance, and for maintaining information on users (e.g., website preferences or the contents on electronic shopping carts).

[55] Hence, it is better defined by its uses in the context of this study and divided into two categories, the extent of its use that is permitted and that can form positive norms and the uses that are not.

[56] Given the deep and wide-based objection to their use, it may even be argued that there are now customary norms prohibiting their uses that can even amount to *jus cogens* (peremptory norm) or *ergo omnes* (owed to all) status in the context of Internet-ional law.

[57] There is a lot of literature and legislation on ''Spam'', but still there is no resolution to it in terms of a cohesive global set of norms or in terms of its effective control and enforcement. It remains a major problem in the efficient functioning of information communications technology today, accounting for a majority of correspondences exchanged.

[58] Any customary norms that might have arisen against ''Spam'' may be superseded by these legislation unless custom continues to clash with written law *after* enactment or customary norm is elevated to the status of Internet *jus cogens* or *ergo omnes* – which may be a quixotic quest given the unlikely possibility of courts preferring a customary norm over a domestic legislation in case of a conflict.

[59] Jason A. Cody, *Derailing the Digitally Depraved: an International Law & Economics Approach to Combating Cybercrime & Cyberterrorism*, 11 MSU-DCL J. Int'l L. 231 (2002).

[60] Computer crimes are new offences and involve crimes against the computer, its functions, and its contents such as programs and data. Hacking, obstruction of use, modification of contents and other such objectionable practices that have emerged from the use of the Internet and WWW are the focus of these laws. There is a distinction between computer crime and cybercrime, which includes anything from computer fraud to spamming practices as well as traditional offences committed via the electronic medium. The potential of customary international law to address cybercrime follows from its role on addressing global crime as well as the usefulness of PIL doctrines such as the *ergo omnes* doctrine in the context of Internet law.

[61] Council of Europe, Convention on Cybercrime (Nov. 23, 2001), available at: http://conventions.coe.int/Treaty/EN/cadreprincipal.htm.

[62] Council of Europe, Convention on Cybercrime: Explanatory Report P16 (adopted Nov. 8, 2001), available at: http://conventions.coe.int/Treaty/en/Reports/Html/185.htm.

[63] Jason A. Cody, *Derailing the Digitally Depraved: an International Law & Economics Approach to Combating Cybercrime & Cyberterrorism*, 11 MSU-DCL J. Int'l L. 231 (2002), where the writer proposes an economic approach to customary international law to deal with the problem of cybercrime.

[64] Kristen Hudson Clayton, *The Draft Hague Convention on Jurisdiction and Enforcement of Judgments and the Internet - A New Jurisdictional Framework*, 36 J. Marshall L. Rev. 223 (2002).

[65] We already see the 'global' dispute resolution mechanism for gTLDs under the purview of ICANN (although it is currently delegated and apportioned to several organizations, while independent national panels exist for ccTLDs). Timeliness is key, as much to dispute resolution as to accelerated forms of online transactions. See Alejandro E. Almaguer & Roland W. Baggott III, *Shaping New Legal Frontiers: Dispute Resolution for the Internet*, 13 Ohio St. J. on Disp. Resol. 711, 716–719 (1998), arguing that alternative dispute resolution is an accurate reflection and complement to what are rapidly developing Internet custom, and is thus the best solution to online disputes.

Domain Name System (DNS),[66] which has produced its own set of rules and regulations as well as institutions. It was an entirely new subject matter that emerged from the Internet infrastructure that required new laws and a new regime for regulation, and hence it is also an example of a new legal regime. The DNS should be considered as deriving part of its source of law from customary norms. For instance, the body of decisions relating to the domain name system emerging from dispute resolution panels for domain name challenges and disputes, based on domain name policies that are largely consistent across the world, exemplify the trends relating to domain name allocation and the considerations to be taken in relation to the challenge procedure and its requirements.[67]

3.2. *Differential treatment: additional and supplementary tests*

In determining custom in different fields of law or subject matter, there may be a further need to tailor the research approach to suit the needs and peculiarities of the area in question as well as the adaptability of their existing frameworks to the electronic environment.[68] Using copyright law as an example, certainly the regime for the protection of audio-visual works faces more challenges than literary works and paintings,[69] due to the digitization of works and methods of transmission of such works.[70]

It is clear that the distinctiveness between areas of law or subject matter and their objectives should affect the level of contribution among the different sources of law and of the type and weightage of evidence to be taken into account in relation to practices and attitudes when determining custom. This may require additional and supplementary tests that determine custom for that field in question. In other words, there should be differential treatment for different areas of law or subject matter. For example, treaty law should be the dominant source of corporate and contract law and custom plays more of a supplementary and gap filling role. The Customary Internet-ional law equivalent of the *ergo omnes* principle is more suited to, and should feature more prominently in, the law on cybercrime and computer crime. A third example is the recalibration of the fair use or dealing exception and the prominent role of the courts and jurists in interpreting the factors analysis to develop useful and relevant tests within that open-ended exception to balance the benefits of technological creations against rights protection in creative works, the interpretation of which will consequently influence behavior and attitudes and in turn form customary practices.[71] Hence every category of law and subject matter in question require separate consideration to render the method of identification and weightage of evidence most suited to their needs.

In this Part of the paper, the focus will be on the customs that are identified relating to the Internet infrastructure. A utilitarian model using a ''best use'' test incorporating a balance of interest analysis can be used to detect and give legal authority to potential customary norms in relation to practices with respect to the Internet infrastructure that benefits the growth and utility of the Internet as a whole with minimal adverse effects on other interests. It will necessarily depend on the state of technology at any given time, the options available and the possible alternatives on the market. Supplementing that test, a lowest common denominator threshold, such as a ''useful function'' test for legal and practical relevance will help to weed out legally irrelevant and absurd practices from becoming custom.[72]

3.3. *Case study: the Internet infrastructure and WWW architectural framework*

3.3.1. *What is the Internet infrastructure*

I have introduced and explained the potentially vast application of Customary Internet-ional law to different subject areas, the rules of customary norm creation and its relationship with other sources of Internet Law. The differences in treatment for each area of law, in particular the additional tests to be formulated and applied to each of them, is beyond the scope of this paper and is more appropriate to be dealt with in subsequent studies. However, it is important at this

[66] Marcelo Halpern & Ajay K. Mehrotra, *From International Treaties to Internet Norms: The Evolution of International Trademark Disputes in the Internet Age*, 21 U. Pa. J. Int'l Econ. L. 523 (2000). This Article explores how the new approach of private ordering and Internet norms relating to the domain name system operates in the arena of international trademark disputes and how it has contributed to the development of an ''Internet Common Law''. Using the ICANN Policy as a case study, the writers note that international trademarks are only one aspect of a growing trend necessitated by the growth of online transactions away from top-down administration towards a more democratic or populist mode of decision-making. The authors also contend that in the special context of international trademark, and in particular the domain name system, the Internet has evolved its own set of social norms and community standards that is bolstered by quasi-public institutions and legal instruments. See also, Viktor Mayer-Schonberger & Malte Ziewitz, *Jefferson Rebuffed: the United States and the Future of Internet Governance*, 8 Colum. Sci. & Tech. L. Rev. 188 (2007), examining the tussle over control of the Internet infrastructure through domain names and how the opportunity to render Internet governance one that is based on the values of the Internet community was lost.

[67] Some countries have formulated additional laws dealing with specific aspects or problems relating to domain names. For example, the U.S. has an Anti-Cybersquatting Consumer Protection Act, 15 U.S.C. § 1125(d).

[68] Similarly, some authors have looked at the Internet as consisting of parts with differing histories of creation and evolution. See Paul K. Ohm, *On Regulating the Internet: Usenet, A Case Study*, 46 UCLA L. Rev. 1941 (1999), suggesting diversity of treatment.

[69] There is a case to be made that different forms of works should be treated differently given the diversity in their value and treatment, which is exacerbated by the digitization movement and the freedom of transfer offered by technology. The best case study is in relation to audio files and format and the practice of P2P exchange of music. See also, Christian A. Camarce, *Harmonization of International Copyright Protection in the Internet Age*, 19 Pac. McGeorge Global Bus. & Dev. L.J. 435 (2007).

[70] How the research should be done will have to be worked out by the experts in each field and is beyond the purview of this paper, but some general thoughts and assessment are made here.

[71] E.g., tests include the ''substantial non-infringing use'', the ''transformative use'' and the ''non-inducement'' tests in the determination of fair use or dealing as a defense to copyright infringement under copyright law.

[72] A working example of what is legally relevant is the ''transformative use'' test that developed out of the copyright law fair use or dealing exception and that forms a part of the factors analysis.

point to move beyond the rhetoric and theoretical aspects of the proposition to show its practical usage by actually applying the basic rules for the crystallization of customary law to a case study to show how custom can influence and in turn be substantiated through existing online practices. The Internet infrastructure is the ideal case study as it is often the interface that we are confronted with in online transactions and also it is not subject matter specific, meaning that it contains components and issues that cut across subject areas and legal disciplines. It also illustrates the usefulness of customary norms for new regulatory frameworks and relatively new subject matters and issues, such as the domain name allocation and challenge regime.

Before I proceed to place the principles of customary Internet-ional law to the test of the Internet infrastructure, first we should be clear as to what that term itself means in the context of this paper. ''Internet infrastructure'' in this paper does not refer to the technical setup and technological basis for the functioning of the network of computers or World Wide Web (WWW) although the way computer codes and the technical basis for communication and transactions do play an integral part in how individuals and entities (including automatons) interact on any electronic platform. It refers to the familiar look and uses of a typical Internet website interface. The phrases ''WWW architecture'' or ''Internet interface'' shall have the same meaning in this Part. The focus will be on the main features of a typical website or webpage that a user is familiar with in terms of its creation, navigation and use rather than on the more technical aspects or workings of the search engine and Internet service or content intermediaries that render the functionality of the WWW efficient, although the latter will also be examined to some degree.[73]

Just by navigating a simple website, there are several common WWW architectural features that users take for granted (accept), and after years of usage have come to expect (approve). Because of the commonality of use and the attitudes of users, these features are thus very likely to have crystallized into customary practices, and even customary law. Some of these apply to both non-commercial and commercial websites while others only apply to the commercial. We shall mainly examine the former to extract some general customary rules or norms and principles that are applicable to all transactions.[74] It must be stated at the outset that these are not exhaustive illustrations and it are solely my opinion that they form existing custom based mainly upon what I perceive to be the persistence of usage and their affirmation or at least a lack of resistance such as through protest or counter-measures. They should be substantiated by proof through independent research, preferably through inter-disciplinary research, which includes statistical and empirical studies to track their usage for evidence of practice and through social studies and surveys to elicit proof of attitude.

3.3.2. *The WWW architecture*

The use of frames and hyperlinks to navigate the WWW makes them the most prominent Internet interface and the current architectural infrastructure or framework design of the WWW that is most visible to users and most commonly used by Internet Content Providers (ICP). Meanwhile, metatagging and other methods of indexing by such Internet Service Providers (ISP) as search engines and other practices that promote Internet functionality may also give rise to practices that challenge, substantiate or supplement existing laws.[75]

3.3.2.1. Hyperlinking[76]. ''Hyperlinking'' is the practice of providing an access point either by words or an icon that transports the WWW navigator from one website or webpage to another without having to undergo a separate search and

[73] E.g., issues relating to the search engine functionality and how information and content is collated, indexed and displayed for users.

[74] Legal commercial norms are more appropriate for future analysis as part of the study of commercial norms. One example is the use of security measures. A practice that has become the usual and expected practice, particularly relating to commercial transactions and e-governance or private platforms, is the use of encryption technology such as identity information and password for access and continuity of transaction. We have seen how digital signatures have already become an accepted norm under model laws, but in the absence of transposition of such laws, should they have the legal status as extra-legislative laws, such as custom that is recognized as law, for instance.

[75] There are many types of Internet Service Providers (ISP) that provides different types of services such as access, search and storage facilities. Similarly, there are many types of Internet Content Providers (ICP) or Hosts including primary originators of information and those that provide a platform for information to be shared. In between the spectrum, where at one extreme are ISPs that merely provide access to the Internet and the WWW and the other extreme consisting of content originators, there is a whole sliding scale of service, content or mixed providers or hosts, all with their own rights and responsibilities in relation to electronic transactions that they are involved in.

[76] See Christopher J. Volkmer, *HyperLinks to and from Commercial Websites*, 7 Comp. L. Rev. & Tech. J. 65 (2002); Stacey L. Dogan, Infringement *Once Removed: The Perils of Hyperlinking to Infringing Content*, 87 Iowa L. Rev. 829 (2002); Martha Kelley, *Is Liability Just a Link Away? Trademark Dilution by Tarnishment under the Federal Trademark Dilution Act of 1995 and Hyperlinks on the World Wide Web*, 9 J. Intell. Prop. L. 361 (2002); Eugene R. Quinn, Jr., *Web Surfing 101: The Evolving Law of Hyperlinking*, 2 Barry L. Rev. 37 (2001); Alain Strowel and Nicolas Ide, *Liability with Regard to Hyperlinks*, 24 Colum.-VLA J.L. & Arts 403 (2001); Ann E. Doll, *Part Seven: Trademarks and the Internet: Review Essay: Hyperlinks, Frames and Metatags*, 12 J. Contemp. Legal Issues 536 (2001); Mason Miller, *TechnoLiability: Corporate Websites, Hyperlinks, and Rule 10(b)*-5, 58 Wash & Lee L. Rev. 367 (2001); John V. Erskine, *Don't Believe the Hyperlink - Potential Liability of Issuers Under Anti-Fraud Provisions of the Federal Securities Laws for Embedding Hyperlinks to Analysts' Reports on Their Web Sites*,32 Seton Hall L. Rev. 190 (2001); Mark Sableman, *Link Law: The Emerging Law of Internet Hyperlinks*, 4 Comm. L. & Pol'y 557 (1999); Shelby Clark, *''What a Tangled Web We Weave, When First We Practice to Deceive'': Frames, Hyperlinks, Metatags, and Unfair Competition on the World Wide Web*, 50 Hastings L.J. 1333 (1999); Jeffrey R. Kuester and Peter A. Nieves, *Hyperlinks, Frames and Meta-Tags: An Intellectual Property Analysis*, 38 IDEA 243 (1998); Jonathan B. Ko, *Para-Sites: The Case For Hyperlinking as Copyright Infringement*, 18 Loy. L.A. Ent. L.J. 361 (1998) and Rosaleen P. Morris, *Be Careful to Whom You Link: How the Internet Practices of Hyperlinking and Framing Pose New Challenges to Established Trademark and Copyright Law*, 30 Rutgers L. J. 247 (1998). See also, the Links & Law website at: http://www.linksandlaw.com.

access procedure.[77] It is a navigational facility. Despite its common usage on the Internet for more than a decade and its acceptance and utilization by website creators and users alike, the legality of hyperlinking is still unresolved and the legal issues relating to its use traverse and encompass topics including intellectual property, namely copyright and trademark infringement, the tort of passing off; unfair competition[78]; contractual breach and other torts such as defamation. It must, however, be kept in mind that customary law may also prohibit or sanction a practice that may not fall neatly into any of these categorizations of law. Customary International Law can develop laws independently to meet new challenges that conventional or existing laws may not even cover. Even if it can be categorized, it may transcend existing categorizations, which can be done *ex poste facto* if appropriate or necessary.

Although it is a popular notion that the Internet is an entirely free zone and the act of setting up a public website automatically gives users an implied license to access and use its contents, there are still some restrictions to hyperlinking. Many of the issues and problems arise out of the practice of linking itself, which suggests some element of association or a relationship between websites that may be separately owned, and there is also the issue of whether providing a link is directing or encouraging traffic to it, which may lead to questions of vicarious or contributory liability where the law provides for such. At the same time, the unique nature of the Internet should be taken into account, because as users become more sophisticated and the Internet and its function becomes of greater intrinsic value, many arguments supporting legal liability in the real world context may be weakened. For example, the argument supporting association or confusion of websites through links and similar keyword search results or domain names may not carry the same weight when users become more aware of, and as technology advances to aid in the drawing up of, distinctions.[79] Also, the sheer volume of a particular practice and its popularity may lead to a strong case for legitimizing a practice to reflect almost global consensus in spite of *a de minimis* number of dissenting voices.

There are several different permutations each with their own issues relating to the actions of the hyperlinker that are currently recognized, and which are likely to constitute customary norms based on widespread practice and acceptance. These include, but are not limited to, the following[80]:

1. Simply hyperlinking to one's own webpage is permitted.
2. Simply hyperlinking to someone else's webpage is permitted, generally.[81] But the use of words and icons should not violate the trademark rights of another such as to give rise to confusion of the products and services of the hyperlinker (or linker) and the originator.[82]
3. Hyperlinking to someone else's webpage is not permitted if –
   a. It bypasses legal and technical measures meant to prohibit access.[83]
   b. It bypasses webpages that were meant to be navigated such as that which contains contractual terms of use

[77] It is defined as: ''An element in an electronic document that links to another place in the same document or to an entirely different document. Typically, you click on the hyperlink to follow the link. Hyperlinks are the most essential ingredient of all hypertext systems, including the World Wide Web.'' See the Webopedia.com website at: http://webopedia.internet.com/TERM/h/hyperlink.html.

[78] Unfair Competition may be an alternative cause of action where it is not possible to show copyright or trademark infringement. Unfair competition involves causing economic injury to a business through a deceptive or wrongful business practice. Misappropriation as a form of unfair competition can occur in some forms of linking, such as when a person constantly free loads the content from another website.

[79] E.g., the ''initial interest confusion'' argument for trademark violation is weaker now with the increasingly sophisticated search and results display system adopted by the major search engines and the discernment of users including the identification of origins and association through the display of the domain name, the description of the website or webpage, the separation of results from sponsored sites, and any combination thereof.

[80] Note that ISPs, and in some cases ICPs, also practice hyperlinking, although countries have come up with limited immunity for some or all of these entities to preserve their essential services, albeit with some limited level of responsibility such as the ''notice and take down'' regime for content regulation and copyright infringement. Technology innovators and providers provide the tools and platforms for hyperlinking and their role and responsibility have yet to be resolved. Users are generally not doing anything illegal by merely navigating through webpages using links that may or may not be provided illegally.

[81] The case law on this issue has evolved as the role of the Internet become more prominent and integral to society, such as in the earlier Scottish case of *The Shetland Times Ltd. v. Dr. Jonathan Wills and Zetnews Ltd.*, (1997) F.S.R. (Ct. Sess. O.H.) (24 October, 1996). In this case, the defendants had used the headlines from the plaintiff's webpage on the Shetland News webpage and linked it to the headlines and news items on the Shetland Times webpage. The court held that the hyperlinking violated the plaintiff's copyrights. In contrast, in the U.S. case of *Ticketmaster Corporation et al v. Tickets.com, Inc.*, (2000) U.S. Dist. Lexis 12987 (C.D. Ca.) (10 August, 2000), the court held that hyperlinking does not itself involve a violation of the Copyright Act as there is no deception in plain and simple hyperlinking. Though on the face of it, hyperlinking may not amount to copyright infringement, it may infringe copyrights if the copyrighted works are displayed in a different manner after hyperlinking (i.e. constituting a derivative works). Today, it may be argued that there is implicit and automatic authorization by default unless otherwise indicated, expressly (e.g., by notice, like in the *Ticketmaster* case) or impliedly (e.g., by the nature of the referred site).

[82] In *Playboy Enterprises, Inc. v. Universal Tel-A-Talk, Inc.*, (1998) W. L. 767440 (E.D. Pa.) (3 November, 1998), the defendants used the internationally famous Playboy 'bunny' trademark to create an unauthorized hyperlink to the official Playboy website. The court held that such form of hyperlinking constituted trademark infringement and dilution.

[83] Legal measures include expressed prohibition, technical measures include technological or security measures to prevent access. Technology may be developed to prevent this from happening, and if it becomes common enough, then the norm may change such that the website owner that wants to restrict or prohibit access should have the responsibility to take such self-help measures instead.

or advertisements or deeplinking that bypasses click-on agreements.[84]

c. It gives the mistaken impression that that webpage and its contents are the work of the linker (when it is not so).[85]

d. It provides access to materials that are otherwise against the law.[86]

Other aspects on the question of the legality of linking that are currently ambiguous and that have not been considered by the courts can also be clarified by custom such as the responsibility to link, to update links and to keep track of linked sites that may fall foul of any of the above prohibitions or restrictions.

Of course, the most prudent course of action for websites offering links would be to seek permission to link such as by entering into linking licenses or agreements. However, although this may make sense for commercial sites to some extent, it is otherwise impracticable for others and especially so for service providers like search engines as well as content hosts, and would hamper the growth, comprehensiveness and accuracy of the WWW. Another method to avoid disputes would be to provide a clear and adequate disclaimer although that may be of limited protection. Perhaps the stage has been reached for website creators or owners to commission the development and use of software technology and programming that can avoid or prohibit linking – a sort of 'opt-in' regime to stricter regulation – such that if it were to take place by a hyperlinker bypassing such methods of blocking or limiting, then there will be a clearer case for action, but not otherwise. This will be in line with the policy to grow the Internet at the minimal expense of existing rights. It will also form part of a trend towards self-help, which is featured most prominently in the development of DRM technologies for the protection of copyrights.

As noted earlier, the case study example cuts across legal disciplines. Here we see that if a hyperlinking word or symbol is displayed in a different manner, it may amount to a derivative work and hence a copyright infringement. The hyperlinker of the displayed content may also be mistaken for the creator which may have trademark or passing off implications. If the content is the subject matter of a contract such as terms of access, or subject to advertisements that are bypassed through deeplinking, it may also have anti-competitive and breach of contract consequences. Hence, in just one function there can be multiple legal implications. Customary law can help resolve many of these issues and render most practices legally acceptable.

3.3.2.2. Framing[87]. ''Framing'' is the practice of organizing a webpage by segmenting it into two or more 'frames' or boxes displaying different content on a single page interface.[88] The contents of the main frame is usually for the display of the main content and is more transient, while the contents of headers and sidebars often serve as identification and navigational tools and can remain constant even while a user is surfing within the contents of a website or 'outside' to other websites.

The practice of framing is common but there have emerged several norms relating to its use, including, but not limited to, the following:[89]

[84] ''Deep links are a special kind of hyperlink, and perhaps the single most useful type of hyperlink. A deep link is a hyperlink that defeats a Website's intended method of navigation, meaning it takes you not to the Web site homepage, but rather to a page that is deeper than the homepage.'' See Brian D. Wassom, *Copyright Implications of ''Unconventional Linking'' on the World Wide Web: Framing, Deep Linking and Inlining*, 49 Case W. Res. L. Rev. 181, 192 (1998). See *Shetland Times v. Shetland News* and *Ticketmaster v. Microsoft* (*supra*.) on parasitic deeplinking.

[85] In *Ticketmaster Corporation v. Microsoft Corporation* (*supra*.), Ticketmaster filed a case against Microsoft for improperly using the Ticketmaster name and logo on a Microsoft website arguing that Microsoft had deeplinked into the Ticketmaster site by bypassing its homepage. Though the case was settled out of court, the settlement agreement provided that deep links could not be made, but that direct hyperlinks to the Tickermaster homepage was permitted. The question remains as to whether deeplinking can amount to trademark violation.

[86] E.g., defamatory, copyrighted or otherwise prohibited material. Defamation claims may also arise if the hyperlink itself consists of a defamatory statement or image or if it links to another page containing defamatory material. For example, hyperlinking is contributory copyright infringement (or its equivalent) if links were proven to be posted with the knowledge, actual or imputed, that the referred site contains directly infringing work as in the case of *Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*, 75 F. Supp. 2d 1290 (D. Utah 1999). See also, Mary Anne Bendotoff, *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.: Fair Use, The First Amendment, and the Freedom to Link*, 35 U.S.F. L. Rev. 83 (2000). It may also give rise to anti-circumvention liability if the referred site contains a computer program or software application that violates anti-circumvention laws, which was an issue raised in the case of *Universal City Studios, Inc., v. Shawn C. Reimerdes*, 111 F. Supp. 2d 294 (S.D.N.Y. 2000).

[87] See Simona Kiritsov, *Can Millions of Internet Users Be Breaking the Law Every Day?: An Intellectual Property Analysis of Linking and Framing and the Need for Licensing*, Stan. Tech. L. Rev. 1 (2000); Kai Burmeister, *Jurisdiction, Choice of Law, Copyright, and the Internet: Protection against Framing in an International Setting*, 9 Fordham Intell. Prop. Media & Ent. L.J. 625 (1999); Raymond Chan, *Internet Framing: Complement or Hijack?*, 5 Mich. Telecomm. Tech. L. Rev. 143 (1998/1999); Nicole M. Bond, *Linking and Framing on the Internet: Liability Under Trademark and Copyright Law*, 11 DePaul Bus. L.J. 185 (1998); Peter Jakab, *Framing Technology and Link Liability*, 19 Pace L. Rev. 23 (1998) and Rosaleen P. Morris, *Be Careful to Whom You Link: How the Internet Practices of Hyperlinking and Framing Pose New Challenges to Established Trademark and Copyright Law*, 30 Rutgers L. J. 247 (1998).

[88] It involves a process whereby one website can be visited on one frame while another frame remains 'frozen' on a previous website. When frames are used, the browser display area is divided into separate sections, each of which displays a different webpage.

[89] As technology advances, however, the importance of frames in its traditional form may be reduced and consequently the legal issues relating to it and many of the norms relating to it may change. Technology can also determine and influence practices, for example, anti-framing subroutines can be built into the html code of a website; also, website creators can now use Active Server Pages, which if properly configured and supported by its server to support Server Side Includes can make it possible to perform the main function of frames without using it; that is, to maintain commonly edited material on every webpage.

1. Framing is generally permitted if it is not against the law, for example, if it does not cause confusion as to marks in relation to goods or services such as to violate trademark laws or passing off, cause unfair competition or induce breach of contract.[90]
2. Deeplinking is generally not permitted if it bypasses webpages meant to be navigated as 'gateways' and especially so if they are coupled with misleading frames; but Inline-linking or Framing used by Internet Content Providers, particularly search engines, for a value-added ''transformative use'' purpose and that can constitute fair use is permitted.[91]

3.3.2.3. *Metatagging*. ''Metatagging''[92] is the practice of using computer coded elements used to provide data about a webpage such as to provide page description or keywords relating to the webpage, which is used to optimize indexing and searches by search engines in order to provide the hyperlinks to the most relevant websites or webpages to the searcher. There is a distinction between the use of search algorithms to facilitate and optimize search engine on the one hand, and the use of the same methods to promote the status of websites on any index or search engine, on the other. In relation to the former, the current controversy is when search engines sells keywords to advertisers to create targeted advertisements to users and for the display of sponsored links.[93] The main issue regarding to the latter relates to methods used by website administrators to attract or divert traffic through such practices or methods as keyword stuffing in order to improve their ranking in search results. The legal implications here mainly relate to trademark, passing off and unfair competition.

The uncontroversial functions of metatagging and related methodologies to generate search results that can constitute custom include the following:[94]

1. Non-commercial keyword search functions and passive side-commercial activities, such as displaying advertisements without compromising the relevance of the webpage ranking, are permitted.[95]
2. It is not permitted for commercial functions where the relevance of search result ranking may be compromised (e.g., if a paying website is given a higher ranking in the taxonomy partly because of the payment).
3. It is permitted if the words or other content occurs naturally on the webpage, insofar as metatags and other word search techniques are concerned[96]; but is not permitted if the use is excessive to its use or if it is done deliberately in order to attract traffic away from a more legitimate website.[97]

In relation to all three topics, it will be noted that the issues are mainly related to intellectual property law, in particular copyright and trademark law. This is an area that has produced a good level of jurisprudence and academic analyses although to some extent the line between legal and non-legal linking is still not distinct. There is in particular an extensive line of U.S. cases regarding framing, hyperlinking and metatagging, many of which were settled out of court while others have had divergent outcomes, making custom more integral to fill the void and to resolve ambiguities. It is noteworthy that the volume of disputes and litigation over these issues peaked in the early 2000s and have since dropped, perhaps evidencing a greater acceptance of such practices.

It is to be noted that there is still the issue of the role and responsibility of technology creators that invented these functions and the intermediate service or content providers and hosts that provides these services such as search engine companies.[98] These involve yet more complicated balance of

[90] See e.g., Jeffrey R. Kuester & Peter A. Nieves, *Hyperlinks, Frames and Meta-Tags: An Intellectual Property Analysis*, 38 IDEA: J. L. & Tech. 243, 247–259 (1998). See also, *The Washington Post Company v. Total News, Inc.* 97 Civ. 1190 (PKL) (S.D.N.Y. 1997) on parasitic framing, available at: http://legal.web.aol.com/decisions/dlip/washcomp.html.

[91] See *Kelly v. Arriba Soft Corp.*, 336 F.3d 811 (CA9 2003)), but contrast it to *Perfect 10 v. Google Inc. et al.*, 416 F. Supp. 2d 828 (C.D. Cal. 2006), and *Perfect 10, Inc. v. Amazon.com, Inc.*, 487 F.3d 701 (9th Cir 2007). in relation to copyright issues for image search engines. Consider also the problems for the Google Book Project as a publications search engine. Embedding technology is now highly advanced as well and the same issues may arise in relation to the technology and practice depending on usage and its acceptability.

[92] See *Playboy Enter. Inc. v. Calvin Designer Label*, 44 U.S.P.Q.2d (BNA) 1156 (N.D. Cal. 1997).

[93] E.g., the Google AdWords targeted advertisement system and the Google AdSense ad serving application.

[94] Taxonomy for search results have become more complex, sensitive and accurate; however, at the same time, the display of search results have also become complicated by commercial factors. It can also implicate other legal issues including privacy issues, for instance if spywares and adwares are utilized to target advertisements and if advertisements are aggressively 'pushed' to Users.

[95] However, search engine results can be tailored and users can become more sophisticated to the extent that there will no longer be confusion between trademarks or trade association such that the commercial sale of keywords by search engine operators as service providers can become legitimate; in particular, if over time there are no objections in the form of threats of legal action while use of the service by both advertisers and users proliferate. For Google AdWords as an example, see: adwords.google.com. It is to be noted that sponsored links and targeted advertisements appear separate from search results under a separate frame with different background color. Also, search results now come with descriptions as well as the hyperlink in the form of the domain name/IP address, all of which diminishes the possibility of confusion considerably.

[96] Metatags are used to specify to search engines where, how and how high a webpage is to be indexed and ranked/displayed based on a search. Meta element is used in content categorization and search engine optimization.

[97] E.g., keyword stuffing/spamming, spamdexing, etc. also, diverting traffic leading to trademark infringement, dilution or passing off or anti-competitive behavior.

[98] Google and Yahoo, the two main search engines on the WWW have faced an increasing amount of lawsuits as they continue to expand and develop their services. See e.g., Search Engine Watch website, available at: http://searchenginewatch.com/showPage.html?page=2156551.

public and private interest issues,[99] which may be better resolved through concerted legislation.

3.3.3. *The incorporation of terms and Internet contracting*

It is now common for webpages to include various conditions of use such as ''Terms of Use'' or ''Terms of Service'' and other clauses such as that relating to privacy, intellectual property and so on. These are contractual in nature and intent and relate to the visitor's 'presence' on the 'online territory' that is a webpage and access to or use of the information or contents contained therein; they are in addition to any other collateral contracts and their terms that can also relate to a transaction for goods and services over the same website. As noted, such terms can relate to a whole array of subject matter, but the main issue is whether the visitor is bound by them in the first place and for this we have to revisit basic contractual principles. Simply put, was there intention to create legal relations through offer and acceptance, and in particular, does visiting a website give rise to sufficient consideration for one to be bound by such terms. Also, the issue of notice and incorporation is even more compelling as it is the common practice for visitors not to read such terms, and there are also diverse practices relating to how these terms are displayed and accessed.[100]

If contract formation principles and the notice requirements are met and visitors continue to navigate to webpages within the site, unless mandatory laws render such terms redundant or inapplicable, the visitor is bound by its terms.

Hence, the following principles can be framed in relation to the common practices of webpages, taking into consideration the existing principles of contract laws:

1. A User is not bound by the terms of use or service through passive and random navigation into a website by merely entering the first page (usually the front page) of a website.
2. A User is bound by the terms of use or service through active and routine or regular visits to a website, whether it contains a browse-wrap or click-wrap agreement.
3. A User is bound by the terms of agreement in a subscription-based website for news and information and in a click-wrap agreement for the online purchase of a product or service, whether digital or physical.
4. A User is bound by the terms of use or service if he/she continues to navigate deeper into the website after having been given reasonable notice of the terms taking into consideration the type and effect of those terms (i.e. how onerous they are on the User) and the type and extent of the notice (e.g., browse-wrap and click-wrap agreements).[101]
5. The uploading of a website with terms of use or service constitutes an offer of its use and contents unless otherwise indicated in the website itself or in its terms.
6. The mere passive navigation and browsing of websites and the content within it (e.g., information) can constitute sufficient consideration under common law principles.
7. The continued navigation deeper into the website constitutes acceptance and an intention to create legal relations.
8. A User is bound by the terms of an active navigation through contractual principles[102]:
   a. If the terms stipulate the stages of a transaction, then it will determine the point of time of each transaction as they occur.
   b. If the business model is clearly designed to depict the stages of each transaction, then it will determine the point of time of each transaction as they occur.
   c. If neither a. nor b. applies, then when a contract is formed will be determined on a case-by-case basis.
9. The usual determinants of an Invitation to Treat and an Offer apply.
10. If a contract is negotiated by instantaneous communication such as through the exchange of instant messaging systems, an acceptance is made upon receipt unless acknowledgement of receipt or a confirmation notice is stipulated as a requirement.
11. If a contract is negotiated by electronic mail or other non-instantaneous communication, an acceptance is made upon posting unless acknowledgement of receipt or a confirmation notice is stipulated as a requirement.
12. A digital product or service shall constitute sufficient consideration as much as a physical good or service does.

Another practice that is commonplace and that can be considered a positive norm is the practice of forwarding documents and links through electronic communications media such as electronic mail (e-mail), Instant Messaging (IM) and Short Message Services (SMS). For instance, it is a well-recognized cyberspace custom of copying e-mail messages and forwarding them to others.[103] In real space, this might be a clear copyright violation, but since it is a common practice in cyberspace, and people are aware of that practice and do it without compunction, it might be argued that some sort of estoppel or implied waiver of copyright restrictions has also become the norm.

[99] Hence, it may make sense to further categorize customary Internet norms into those applicable to different stakeholders and uses (i.e. commercial or non-commercial).

[100] Making them too obvious or intrusive might turn off potential visitors, which is especially a concern for commercial entities and websites actively seeking visitors; but making them too innocuous may fall foul of notice requirements and render the terms inapplicable.

[101] Whether or not they actually read the terms, which often is not the case. This is of course still subject to the bases under public policy and written laws that negate some or all of such terms or even part or whole of the contract or license, for example, unconscionable or unfair terms and laws for consumer protection.

[102] The transaction can simply be the sale of digital forms of traditionally available goods and services such as digital products and online advice as well as transactions such as e-banking and e-governance; but they now also include an array of goods not previously available or recognized before the digital age such as digital technology and applications, and electronic networking or communications accounts.

[103] Once again, technology can provide the lock to prevent such practices, if the sender prefers not to allow copying or forwarding functions for confidentiality reasons, for instance.

Table 1 – Breakdown of internet infrastructure categories and descriptions.[104]

Feature[105]	Usage[106]	Category of Law[107]	Description of Type
"Terms of Use" or "Terms of Service"	Commercial/Non-commercial	Contract/Tort/Crime	Content-based
"Privacy Policy"		Privacy	Content-based
"IP Policy"		Intellectual Property	Content-based
Framing		IP: Copyright, Trademark	Architectural/Navigational
Hyperlinking		IP: Copyright, Trademark	Architectural/Navigational
Metatagging		IP: Trademark	Architectural/Navigational
Cookies		Privacy	System
Advertisements[108]		Privacy	Content-based
Copying/Forwarding	Non-commercial	IP: Copyright	System
Payment/Transaction Process (business model)	Commercial	Contract/IP	Process
Encryption	Commercial	Contract	Process
Domain Name System	Commercial/Non-commercial	New	Infrastructure

Table 1 provides a general breakdown of the main features of the Internet Infrastructure that have been covered, the type of usage, the categories of law that are implicated and a description of the type or nature of the feature.

3.3.4. *Caching and indexing*

The issue of the legality of caching and indexing has largely become moot because it has become so integral to the working of the Internet and they have been rendered legal under the amended copyright laws of many countries. Copying and storage of webpages or caching for functionality such as quicker access and indexing by ISPs such as search engine as well as caching by users on their computers are now allowed by worldwide copyright law amendments via exception clauses. It can, however, be argued that these customary norms have already developed *before* the enactment of such legislative amendments, and the legitimacy of such practices pre-date written law, which can be considered the mere codification of existing practices.

Finally, just a short reference to the Google digital library project. The scanning of books for the purpose of online search indexing is an issue that has not been resolved. It was pioneered by the Google Book Search Library Project, which had settled privately with the Authors Guild in 2008, but has since come under the public scrutiny of the U.S. Justice Department on the issue of whether it violates antitrust laws.[109] The issue is thus still outstanding and unresolved and no norms can be said to have emerged from it. Google's AdWords function is also facing outstanding trademark infringement litigation in Europe with a dispute pending before the European Court of Justice (ECJ).

3.3.5. *The domain name regime*

The national country coded-top-level domain name (ccTLD) regime is largely consistent and based on national policy regulations that are very similar as they are modeled after the general top-level domain name (gTLD) regime that is overseen by the Internet Corporation for Assigned Names and Numbers (ICANN).[110] As such, most of the law is determined by legislation in the form of regulations, although some customary norms may co-exist and duplicate or reinforce these provisions such as the law against cybersquatting and reverse domain name hijacking.[111]

3.4. *The law relating to intermediaries as new stakeholders*

Customary norms are also important to define the rights and responsibilities of intermediaries as have been shown by the need to regulate the practices surrounding metatagging for instance. The functionality of intermediaries are vast and have great implications for the future of the WWW so it is important to address them briefly, even though they are not the focus of this paper, with a view to their consideration in future studies.[112]

[104] These categories can be further compartmentalized such as the surface features and the technical and behind-the-scenes applications.

[105] These are the most common terms, although permutations vary.

[106] Main usage, although there may be some minor exceptions.

[107] This is a simplistic categorization as sometimes certain features incorporate any mixture of these categories. For example, the "Terms of Use" in a website can contain terms on every subject matter including privacy terms and intellectual property matters, rather than providing them in separate links.

[108] Not taking into consideration the content of advertisements but only the method of advertising, they can be placed in two main categories: Some forms of advertisements, particularly non-invasive and passive sidebars are expected and tolerated; others are not such as aggressive pop-up and spam advertisements.

[109] See *Google Settles with Publishers, To Pay $125 Million* (29 October, 2008), available at: http://www.domain-b.com/companies/companies_g/google/20081029_publishers.html; and *Google's Book Scanning Project Runs into Legal Hurdles*, available at: http://www.domain-b.com/companies/companies_g/google/20090610_book_scanning_project.html respectively.

[110] See the ICANN website at: http://www.icann.org.

[111] Like spamming, cybersquatting is also a good example of a practice that can never be considered permissive as a norm due to the laws against it as well as the negative attitude towards it by the majority of stakeholders whether generally or specifically through legal action and challenges as well as technological counter-measures.

[112] This is a placeholder to emphasize the scope of the challenge to Internet law-making and its subjects. More in-depth study analysis has to be made regarding them.

3.4.1. *Internet service and content providers and hosts*

Internet Service Providers (ISP), and in some cases Internet Content Hosts, have limited immunity to prosecution or civil suits relating to the actions of others. They may also bear a measure of responsibility to off-set the benefits of their immunity such as being subject to a ''Notice and Take Down'' regime such as those normally contained in content regulations and copyright laws. As their functions evolve, so too the need to examine their legality and the norms regulating their behavior.

3.4.2. *Technology innovators and developers*

As compared to user responsibility and liability, technology creators face a different set of rights and responsibilities that are new, ambiguous and very different depending on their role and the type of technology in question.[113] The Peer-to-Peer (P2P) trend of cases and the DRM and anti-DRM backlash show how complicated the issues can get. Custom can also help to resolve the ambiguities somewhat and to define and guide their role in future technological developments.[114]

4. Denouement

Although the subject of this paper is deceptively simple, the breadth and scope as well as the potential role and impact of Customary 'Inter-netional Law' on the development and realization of a body of Internet law are tremendous. It will, however, require wide and sustained inter-disciplinary micro-analytical studies with more of a subject matter or area of law focus and perhaps also the creation of centralized institutional support for the development of clear and universal Internet standards and norms.

In summary, the benefits of custom to the development of Internet norms that have emerged from this study include the following: Comprehensive laws and regulations relating to electronic transactions so as to reduce ambiguities and uncertainty in the legality and legitimacy of roles and transactions; empowering all the stakeholders by giving them a role in law-making; faster reaction by law through the use of inter-disciplinary research and study, such as the utilization of automated empirical programs or systems; greater uniformity and predictability of transactions for all stakeholders including new entities such as intermediaries and user-creators; and worldwide consistency and the harmonization of national laws and functional efficacy, predictability and efficiency of transactions. The current ambiguities in the law and the abovementioned benefits and solutions that Internet custom can bring justify the continued study and support to tap the well of custom as a source of law, in other words, for custom to have a law-making function.

Warren B. Chik (*warren.chik@smu.edu.sg*) *Asst Prof of Law, Singapore Management University*.

[113] E.g., enabling, security or protective technologies, whether freelance or commissioned, government sanctioned or prohibited.

[114] As noted before, some tests have emerged from the courts that can have widespread effected if adopted elsewhere such as the ''substantial non-fringing use'' and ''non-inducement'' doctrines that have emerged from the United States courts for technological innovations and technologies that allegedly contribute to copyright infringement or that are vicarious infringement.