Safeguards and Trust (PLEASE INSERT EDITS/COMMENTS, AND EXPORT AS WORD DOCUMENT BEFORE SENDING IT TO LAUREEN)

Chapter VI  Consumer Trust

We sought to determine the extent to which the expansion of gTLDs has promoted consumer trust. As with our findings about competition and choice issues, we are still in the early stages of the New gTLD Program and hence our data reflects an early look, rather than a long-term assessment of the program. In order to examine the impact of the new gTLD program on consumer trust, among other issues, ICANN commissioned Nielsen to survey global online consumer end users and global domain name registrants. Two surveys of each group were taken approximately one year apart between 2015 and 2016. These surveys were aimed broadly at assessing the current Top-level Domain landscape, as well as to measure factors such as consumer awareness, experience, choice, and trust with new TLDs and the domain name system in general. Reports on the survey results

1 For the purposes of our review, we recognized that “consumers” (typically, a natural person, acting primarily for personal, family or household purposes) generally fall into two categories: (i) Internet Users and other market participants who make use of domains through DNS resolution, such as by navigating to a URL or sending an e-mail; and (ii) Registrants (and potential registrants). and may, depending on the context, include businesses and government agencies as well.
from the consumer segment were published in April 2015 and June 2016, and reports on the registrant surveys were published in September 2015 and August 2016. Nielsen directed its “consumer” survey to consumer end users and its “registrant” survey to the primary decision makers that registered a domain name. Based on this data, we identified two primary factors relevant to the public’s trust of gTLDs: familiarity and security. The concept of “familiarity” includes awareness and reputation of the gTLD. The concept of “security” includes concerns about DNS abuse and expectations about restrictions on who could register within a particular gTLD.

Typically, awareness is the most basic knowledge of a domain name extension. Familiarity can be considered a higher level of awareness; more knowledge and understanding about a particular domain name extension. In addition to providing data on aspects of awareness of gTLDs, the Nielsen studies also asked consumers about their trust of new gTLDs compared to legacy.

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2 [Cite and link to Nielsen Consumer Studies]


4 See Phase 2 Consumer Survey at p.3 and Phase 2 Registrant Survey at p. 4.
gTLDs and their comfort levels with providing certain types of sensitive information to new gTLDs compared to legacy gTLDs. The following section sets forth the most pertinent findings from those studies.

**Awareness and Visitation.**

In terms of awareness, the logical predeprocessor to familiarity, we find that consumer “total awareness” of new gTLDs increased from 46% to 52% between 2015 and 2016.\(^5\) Total awareness of new gTLDs by registrants was higher than awareness for consumers and remained stable (showing no statistically significant change between 66% in 2015 and 64% in 2016.\(^6\) Interestingly, consumer and registrant awareness of any of new gTLDs specified in the survey was relatively higher in the Asian, African and South American regions, than in North America and Europe.\(^7\) As one might expect, total awareness of new gTLDs lags behind that of legacy gTLDs which have total consumer and registrant awareness levels of 98% or more between 2015 and 2016.\(^8\)

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\(^5\) Nielsen, Phase 2 ICANN Global Consumer Research, p. 8, 42 (for “consistent” gTLDs listed in both 2015 and 2016 surveys).

\(^6\) Nielsen, Phase 2, ICANN Global Registrant Survey p. 142.

\(^7\) Nielsen, Phase 2 ICANN Global Consumer Research, p.42; Nielsen, Phase 2, ICANN Global Registrant Survey p. 42.

\(^8\) Nielsen, Phase 2 ICANN Global Consumer Research, p. 8; Nielsen, Phase 2, ICANN Global Registrant Survey p. 12.
Moving from awareness to actual visitation rates, we found that consumers do not visit new gTLDs as much as legacy gTLDs. Comparing visitation rates between highly known legacy gTLDs (.com, .net, .org) and specified new gTLDs (.email, .photography, .link, .guru, .realtor, .club, .xyz), the data showed that in 2015, 71% of consumers visited a legacy gTLDs in the “high” category vs. 15% of consumers visiting specified new gTLDs (.email, .photography, .link, .guru, .realtor, .club). In 2016, an even higher percentage of consumers reported visiting these same legacy gTLDs (81%), while the number of consumers visiting the specified new gTLDs ticked down slightly (12%). When additional new gTLDs were added to the survey questions in 2016 (.news, online, .website, .site, .space, .pics, .top), the visitation rate reported was 15%. Generally speaking, the average visitation rates for new gTLDs were closest to the visitation rates reported for legacy gTLDs in the moderately known categories (.info, .biz), 22% in 2015 and 27% in 2016.

9 Nielsen, Phase 2, ICANN Global Consumer Research Study p.7.
10 Nielsen, Phase 2, ICANN Global Consumer Research Study p.7.
11 Nielsen, Phase 2, ICANN Global Consumer Research Study p.7.
12 Nielsen, Phase 2, ICANN Global Consumer Research Study p.7.
Expectations about Relationship of gTLD Name to Websites Using that gTLD

The Nielsen surveys indicated the public’s expectations about a connection between the name of a gTLD and websites associated with that gTLD. 55% of consumers surveyed expected “a very clear relationship” between domain names and websites registered under those domain names. Related to this issue, 79% of consumers also expect requirements that the actual use of the name is consistent with the meaning of the gTLD. This issue relates to another question posed in the surveys by Nielsen: Why websites have different extensions? A majority of registrants believed that websites have different extensions to “properly identify the purpose or owner or to give an indication of content or function.”

Nevertheless, when asked about how much attention consumers pay to a domain extension, the survey reported equivocal results across all regions. For example, overall, 29% reported “they don’t pay much attention,” 34% only visit sites with “familiar” domains, and 37% base their visitation upon search engine results. This finding is consistent with another reported result: the

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13 Nielsen, Phase 2, ICANN Global Consumer Research Study p.9, 50.
14 Nielsen, Phase 2, ICANN Global Consumer Research Study p.27 (question related to legacy gTLDs).
15 Nielsen, Wave 2, ICANN Global Registrant Survey p. 25-26
16 Nielsen, Phase 2, ICANN Global Consumer Research Study p.54.
17 Nielsen, Phase 2, ICANN Global Consumer Research Study p.54.
The public’s preferred way of finding a website is via search engines.\textsuperscript{18} The consumer survey indicated that in 2016, 67% of consumers preferred to use a search engine to find a website compared to 20% that indicated that they prefer to type the domain name directly into a browser.\textsuperscript{19} Registrants also report a preference for using search engines to websites and also identify search engines as the leading method they use to find out more information about gTLDs.\textsuperscript{20}

When asked what makes domain extensions trustworthy, consumers reported that reputation and familiarity played key roles.\textsuperscript{21} In the related topic of why consumers visit gTLDs, we find that consumers choose to visit sites based upon relevance of the gTLD to the information they seek. Consumers also tend to visit sites with which they are already familiar.\textsuperscript{22} Interestingly, registrants may presume familiarity and trust of certain domains based on the name (such as a reference to a prominent city).

\textsuperscript{18} Nielsen, Phase 2, ICANN Global Consumer Research Study p.77.
\textsuperscript{19} Nielsen, Phase 2, ICANN Global Consumer Research Study p.77.
\textsuperscript{20} Nielsen, Phase 2, ICANN Global Registrant Research Study p.102, 32.
\textsuperscript{21} Nielsen, Phase 2, ICANN Global Consumer Research Study p.19-20. See also pp.56-57: What makes an unfamiliar domain extension feel trustworthy? Relevance and appeal of information are significant factors; 2016 NCC Group Trust in the Internet Survey at p. 5 https://www.nccgroup.com/globalassets/research-reports/2016-internet-survey-document-ti.pdf (over 50% of those surveyed identify the following as a factor that would increase their confidence in new domains: “Brand/company clearly communicates the steps to take to secure your personal information within the website.” We note that it appears this study was commissioned by an entity that has a business interest in marketing both cyber- security products and the .trust domain.
\textsuperscript{22} Nielsen, Phase 1, ICANN Global Consumer Research Study p.8, 18, 36.
regardless of whether the gTLD has actually been delegated. Conversely, the public may experience significant discomfort visiting sites with unfamiliar gTLDs. When deciding whether to visit a website with an unfamiliar gTLD, consumers look to usage (their own prior usage or the popularity of the website), site appeal or interest, and reputation (good reviews, recommendation, etc.).

Public Trusts Legacy gTLDs more than New gTLDs.

The data shows that both consumers and registrants trust new gTLDs significantly less than legacy gTLDs. In both 2015 and 2016, consumers reported trusting specified new gTLDs approximately only half as much as specified legacy gTLDs. For example, in 2015, consumers found 90% of specified legacy gTLDs to be very/somewhat trustworthy but only 49% of specified new gTLDs very/somewhat trustworthy. Results were similar in 2016, with consumers reporting that 91% found specified legacy gTLDs very/somewhat trustworthy, while 45% find new gTLDs very/somewhat trustworthy. When Nielsen added

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23 Nielsen, Phase 2, ICANN Global Registrant Survey p. 38.
24 See e.g., 2016 NCC Group Trust in the Internet Survey at p.3 [insert link]. (in 2016: 52% of those surveyed reported feeling “not very or not at all comfortable” visiting websites with new domains).
25 Nielsen, Phase 2, ICANN Global Registrant Survey p.38.
26 Nielsen, Phase 1, ICANN Global Consumer Research Study p. 9, 40; 2016: Nielsen, Phase 2, ICANN Global Consumer Research Study p. 9
27 Nielsen, Phase 1, ICANN Global Consumer Research Study p. 9, 40. Specified legacy gTLDs: .com, .net, .org; specified new gTLDs: .email, .photography, .link, .guru, .realtor, .club; .xyz.
certain specified new gTLDs, the percentage rose to 52% for the added gTLDs.\textsuperscript{28} When surveyed about specific new gTLDs, the consumer response varied depending upon the particular gTLD and the consumer’s region.\textsuperscript{29} For example, approximately half the consumers surveyed reported high levels of trust for .news, .photography, .email, .realtor with .news seen as the most trustworthy across all regions.\textsuperscript{30} When asked similar questions about specified legacy gTLDs, over 70% of consumers across all regions rated .com, .org, and .net as very/somewhat trustworthy.\textsuperscript{31}

Compared to consumers, registrants consistently report higher levels of trust for specified gTLDs but still report lower levels of trust for new gTLDs compared to legacy gTLDs.\textsuperscript{32} Registrants associate the term “trustworthy” with legacy gTLDs more than new gTLDs. For example, in 2015 83% of registrants associated the term “trustworthy” with legacy gTLDs compared to a rate of 58% for new gTLDs.\textsuperscript{33} In 2016, 79% of registrants viewed legacy gTLDs as “trustworthy” compared to 60% for new gTLDs.\textsuperscript{34}

\textsuperscript{28} Nielsen, Phase 2, ICANN Global Consumer Research Study p. 9. Added new gTLDs (.news, online, .website, .site, .space, .pics, .top).

\textsuperscript{29} Nielsen, Phase 2, ICANN Global Consumer Research Study p. 55

\textsuperscript{30} Nielsen, Phase 2, ICANN Global Consumer Research Study p. 55

\textsuperscript{31} Nielsen, Phase 2, ICANN Global Consumer Research Study p. 18.

\textsuperscript{32} Nielsen Phase 2, ICANN Global Registrant Survey p.64; compare trustworthiness percentages for legacy gTLDs reported on p. 27 to legacy gTLDs p.66.

\textsuperscript{33} Nielsen Phase 2, ICANN Global Registrant Survey pp.27 and 66; compare trustworthiness percentages.

\textsuperscript{34} Nielsen Phase 2, ICANN Global Registrant Survey pp.27 and 66; compare trustworthiness percentages.
This trend of higher rates of trust for new gTLDs by registrants is also reflected in data regarding individual new gTLDs. For example, for the most trusted new gTLD surveyed over both phases -- .email-- 68% of registrants viewed this domain as “somewhat/very trustworthy” as compared to approximately 62% of consumers.\(^{35}\) Moreover, over 58% of registrants associated the term “trustworthy” with a specified list of new gTLDs between 2015 and 2016.\(^{36}\)

**Consumer Behavior that Indicates Trust**

In addition to surveying the public about their subjective views on trust, data were also gathered about behavior that could indicate trust, such as willingness to provide sensitive information to websites associated with new gTLDs. To a certain extent, these results reflected a similar difference between consumer’s trust of new gTLDs compared to legacy gTLDs. For example, when asked whether they felt “very/somewhat comfortable” providing financial information to the .com legacy gTLDs, 62% of consumers responded affirmatively compared with only 32% when asked this same question regarding new gTLDs.\(^{37}\) Results for other types of personal information, showed lower comfort levels when final users were asked about providing sensitive information.

\(^{35}\) Nielsen Phase 2, ICANN Global Registrant Survey p.64.  
\(^{36}\) Nielsen Phase 2, ICANN Global Registrant Survey p.66.  
\(^{37}\) Nielsen, Phase 2, ICANN Global Consumer Research Study p.90.
to new versus legacy new gTLDs. In fact, consumers tended to respond that they were “not very comfortable” with providing sensitive information to new gTLDs. Related to these findings, another survey on trust in the internet reflected the public’s increasing concerns regarding stolen credit card/financial information; online security; protection and security of credit card and personal information.

Registration Restrictions Contribute to Trust

The Nielsen surveys indicated that the public expects certain restrictions about who can purchase domain names and trusts that any restrictions will be enforced. The survey results also indicated that the presence of such restrictions contributed to consumer trust. These results applied to all gTLDs and the percentage of the consumers who reported that restrictions contributed to consumer trust increased from 56% in 2015 to 70% in 2016. For example, the consumer surveys indicated that over 70% of those surveyed not only expected entities that offer domains to take precautions about who gets a domain name, they

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38 Nielsen, Phase 2, ICANN Global Consumer Research Study p.90
39 Nielsen, Phase 2, ICANN Global Consumer Research Study p.90.
40 2016 NCC Group Trust in the Internet Survey at p.2 [insert link]
41 Nielsen, Phase 2, ICANN Global Consumer Research Study p.9, 13, 26-27, 65; Nielsen, Phase 2, ICANN Global Registrant Survey p. 14, 18, 30, 68.
42 Nielsen, Phase 1, ICANN Global Consumer Research Study p.9, 26; Nielsen, Phase 2, ICANN Global Consumer Research Study p.9, 13, 26,
43 Nielsen, Phase 2, ICANN Global Consumer Research Study p.9
also expected some screening of individuals or companies who register for certain special domain names.\textsuperscript{44} Moreover, over 80% of consumers expect the enforcement of restrictions such as 1) requiring validation that person/company registering site meets intended parameters and requiring validated credentials related to the gTLD.\textsuperscript{45}

Focusing on new gTLDs, an increasing percentage of consumers (73%) expect at least some level of restriction on registrations in the purchase of specified new gTLDs.\textsuperscript{46} Registrants also favor restrictions but are generally more opposed to restrictions than consumers.\textsuperscript{47} However, when put in context of validating certain characteristics that are in keeping with the intended or implied use of the gTLD (such as a contractor's license for .builder), three out of four surveyed registrants\textsuperscript{48} reported approval of such restrictions.\textsuperscript{48} For context, both consumers and registrants also believe that there are expect registration restrictions on registrations in legacy gTLDs.\textsuperscript{49}

Consumer Trust in the Domain Name System Overall Since the Introduction of New gTLDs.

\textsuperscript{44} Nielsen, Phase 1, ICANN Global Consumer Research Study p.49.
\textsuperscript{45} Nielsen, Phase 2, ICANN Global Consumer Research Study p.27.
\textsuperscript{46} Nielsen, Phase 2, ICANN Global Consumer Research Study p. 9 (up from 67% in 2015).
\textsuperscript{47} Nielsen, Phase 2, ICANN Global Registrant Survey p.67.
\textsuperscript{48} Nielsen, Phase 2, ICANN Global Registrant Survey p.14.
\textsuperscript{49} Nielsen, Phase 2, ICANN Global Consumer Research Study p.9, Nielsen, Phase 2, ICANN Global Registrant Survey p.29.
Phase 1 of the Nielsen survey found that about half of consumers trust the Domain Name industry just as much as other tech industries (Internet Service Providers, software companies, computer/hardware companies, e-commerce, and web-based marketing companies) and the rest are more inclined to trust it more as opposed to less. Africa, Asia, and South America, more so than the other regions, say they trust the Domain Name industry more comparatively. Reputation was the factor cited most as the reason consumers trusted the DNS more than other tech industries; it was also cited as the reason consumers trusted the DNS less than other industries. While Phase 2 of the survey found that trust levels had at least remained the same since 2015. The global total seemed to improve against all of the 5 reference industries, wave over wave, by an average of just over 4 percentage points. At this point, with only a year between the two reports on a nascent market, it is not possible to conclude with certainty that these levels had in fact improved. The survey of registrants found positive results similar to those found in the consumer segment when it comes to trust in the domain name industry relative to other industries. General reputation and self-

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50 Nielsen, Phase 1, ICANN Global Consumer Research Study at p. 50.
51 Nielsen, Phase 1, ICANN Global Consumer Research Study at p. 50.
52 Nielsen, Phase 2, ICANN Global Consumer Research Study at p. 66.
53 Nielsen, Phase 2, ICANN Global Consumer Research at p. 63-64.
54 Nielsen, Phase 2, ICANN Global Consumer Research at p. 63-64.
55 Nielsen, Phase 1, ICANN Global Registrant Survey at p. 67. More so than other regions, in Asia registrants say they hold comparatively higher trust in the Domain Name industry. Id.
interest drive trust. Registrants expect the industry to adhere to practices that protect their own interests and commonly note security protocols, as well as just a general positive reputation as factors that promote trust. Those who trust less cite poor security and regulations as well as general reputational issues like a lack of transparency regarding business practices.

Conclusions

From a big picture perspective, the Nielsen surveys indicate that the release of hundreds of new gTLDs does not appear to have had a negative impact on overall trust in the DNS. Looking at trust of new gTLDs specifically, we find that while consumers do not trust new gTLDs nearly as much as legacy gTLDs, the trust levels appear to be stable over both phases of the Nielsen studies with registrants reporting slightly higher trust levels than consumers. Finally, although trust of TLD seems to primarily correlate with familiarity, both registrants and consumers link gTLD registration restrictions, trust that such restrictions will be enforced, and associate such restrictions with an increase in trustworthiness.

56 Nielsen, Phase 2 Registrant Report, p. 77, 79.
57 Nielsen, Phase 2 Registrant Report, p. 77, 79.
58 Phase 2 Registrant Report, p. 77, 81-82.
RECOMMENDATIONS:

1. Given the findings about the relationship between trust and familiarity and the reasons why the public visits websites associated with gTLDs, we recommend that the subsequent procedures PDP working group and ICANN staff assess how to select gTLDs that are relevant to what the public seeks information about. This effort would likely require further research. Nevertheless, such research could inform gTLD selection for potential subsequent rounds.

2. Given the findings on the public’s expectations about registration restrictions, and the findings that such restrictions contribute to consumer trust, the subsequent procedures PDP working group should consider whether additional restrictions on who can register names in purchase gTLDs should be part of standard ICANN contracts to ensure that user expectations are met regarding: a. relationship of content of gTLD to name of gTLD; b. implied messages of trust conveyed by names of gTLDs (particularly in sensitive or regulated industries); and c. safety and security of sensitive information (especially health and financial information).

Further Review:

1. Repeat selected parts of Nielsen study and look for increase in familiarity with new gTLDs; visitation of new gTLDs; perceived trustworthiness of new gTLDs.
2. Collect data on registration restrictions to compare consumer trust levels between new gTLDs with varying degrees of registration restrictions.

3. Collect data on whether there are correlations between DNS abuse and presence or absence of registration restrictions.

4. Collect data on costs and benefits of registration restrictions.

Commented [62]: Margie's comment: Need to be more specific; These recommendations are too vague—we just wouldn't know what to differently. Need to identify the goals & priority—high/low? Needed for next round?