From measuring the market to understanding it

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Introduction

Global domain growth rates have reached record lows, social media and free email have driven down the case for personal domain ownership, there are more TLDs on offer than ever and regulation affecting TLD registries is mounting. For a domain registry to be apathetic in these is to risk obsolescence. The industry has been walking in the dark for 20 years or more when it comes to understanding the market trends, let alone how those domains are being used. It's time we got serious about data.

This article will discuss how we got to where we are today in domain name analytics, what the current trends are and where we might be going.

Campus to Boardroom

Over the past 20 years, an entire industry has emerged. From a few million domains under management in the late 1990s to over 70 million today, country-code registries in Europe have come a long way. They now employ hundreds of specialists, maintain trusted identifiers for residents, support local internet projects and are actively involved in European-centric and international internet forums. Domain name growth has occurred simultaneously with the rapid expansion of the internet. Although technical ability and registration policy liberalisation played important roles in ccTLD development, the significance of internet access as a driver of growth should not be underestimated during those early days. But have registries kept up with the brisk rate of change?

During the late 1990s, many ccTLDs did not charge for domains, registration policy was more restrictive (limits on the number of domains held, local presence requirements, etc.) and registries were often run by universities or governments. Few could have predicted that domain names would gain commercial interest, let alone become the foundation for a global network of web and email navigation. As the internet gained momentum, so did the pressure on registries to address the demand for online space. This meant charging fees, boosting security systems and building forums such as CENTR and ICANN.

The nature and commercial lean of the internet also changed considerably. Yet, despite rapid growth, the introduction of more commercially aggressive gTLDs, social media platforms and changes to the visibility of top-level-domains, the organisational culture and vision of ccTLD registries has remained largely unchanged.

Low levels of commercial enterprise among ccTLD registries can be explained by their academic background and legal structures. 84% of organisations managing ccTLDs in Europe are not-for-profit (NFP). NFP organisations tend to have very different organisational cultures and often lack the drive for growth and innovation compared to their for-profit counterparts. However, conditions have shifted, and these registries now find themselves surrounded by new commercially-minded participants.

The internet has evolved to a point where individuals and businesses now have far more choice in how and where they present themselves online. This is the key challenge for domain registries. Although domain names are still crucial to internet navigation, their visibility to the public has declined. Perhaps linked to this, we have seen average growth rates in domain names fall to critically low levels.

Only a small number of registries appear uninterested in turning this trend around. Possible reasons may include insufficient resources or government oversight restrictions. There are also several small registries which are still linked to academic institutions or are family owned and who tend to take a more conservative approach. It is also important to note that some registries view their role as purely administrative and choose not to involve themselves in any activity concerning market conditions, growth or competition.

In contrast, many European registries are now adopting a significantly more progressive approach to the development of the ccTLD 'brand' and exploring commercial and diversification strategies. These ccTLD registries have moved from universities to board rooms, both literally and metaphorically.

Domains and social media – friends of frenemies?

Social media is now a fixture in the internet landscape and provides a viable option for online presence to millions around the world. Whether from reduced visibility of unique domains or choices of social media pages over traditional websites, social media has no doubt had an impact on global domain name sales. It is, however, an impact that is difficult to measure. For many individuals and small businesses, creating a social media account / page is far easier than buying and hosting a domain name - let alone developing a website. Social media platforms also cast a much wider net of communication; something a stand-alone website cannot replicate as easily. If the objective is to increase exposure and communicate, the benefits of social media are undeniable. However, it is important to note that the uptake in social media has come at a cost to personal privacy, control and ownership. Many of the larger social media platforms are funded by advertisements linked to personal data they harvest from user account behaviour. This is a consideration which is often overlooked by individuals or small businesses when setting up an account.

Although comparing a domain name to a social media account is problematic, the comparison of a website to a social media page is a little easier: both provide a place to host content. Some registries have campaigned about the benefits of domain names over social media, arguing that a domain name allows ownership of content whereas social media is like renting a space. Although this is a reasonable argument, it may not convince a small business like Jess' Local Dog Walking. Why should she spend time and effort setting up her own website and email when she could click a few times, open a Facebook page and potentially get the same results?

Often the decision comes down to cost / benefit. The smaller the enterprise, the less likely it is to have a domain name and website. Most registries now accept that social media is a complement to traditional websites that are run on unique domain names. It's unlikely that a business of moderate size would choose social media as its sole online presence. The key challenge to registries and registrars (those that sell the domains) is to ensure registering and setting up a website is made as easy as possible and improve communication and education about the benefits of domains.

Communication and the individual

Ownership of a domain name for personal use has reduced substantially. Free email services and social media accounts are appealing communication tools as they can be set up with just a few clicks. Efficiency is achieved for the millions of people who would otherwise find it too costly, time-consuming or cumbersome to register and host their own domain name. Consequences of this trend include the concentration of data into the hands of a few (Facebook, Google, Microsoft, etc.) and the likely lost opportunity in domain sales. This trend has also damaged visibility and awareness of unique and personalised domain names more broadly.

Instant messaging services like WhatsApp, Facebook Messenger and Slack have also put a significant dent in the case for domains held for private use. Critical mass was achieved years ago for these services as they offered a convenient place to communicate with quick setup and instant thread-style conversations. An initial appeal of instant messaging services was a unique feature allowing users to quickly sign up via mobile phone numbers.

New services such as ID4me[1] and other identification frameworks have been developed in recent years which attempt to bring domains back into the realm of individual ownership. ID4me allows individuals to login to services using a single domain name, similar to the 'login with Google/Facebook' system. It is currently too early to predict whether these initiatives will gain momentum, but they do highlight an important trend: the industry is starting to respond more creatively to market conditions.

1   https://id4me.org/

Measuring the market

How are domain names being used? What are the registration patterns? How does social media impact customer behaviour? How many businesses use a gTLD instead of a ccTLD? Should registries and registrars care about any of this?

If you asked domain registries 20 years ago, only a small number of data enthusiasts would have been interested in chatting about these sorts of things. During most of the past 20 years there has been little to no reporting on the evolution of domain name registrations at a market level except for occasional lists of domain counts of some of the largest registries. This is hardly surprising given the relative youth of the industry and the double-digit growth rates achieved for many of the early years. Like any new industry, time is needed to develop, mature, organise, measure and reflect.

After 20 years of uninterrupted growth, the industry is now at a crossroads. ccTLD registries are operating in a very different marketplace than when they started. Social media is here to stay, aggregator sites such as Reddit, Quora and Wikipedia have replaced the need for multiple domains and nimble communication tools such as Slack and WhatsApp have reduced the need to use email. There are also now hundreds of new TLDs to choose from, many of which are far more commercially-minded than ccTLDs. The local ccTLD is one of many options and although the 'new gTLDs' launched in the past few years still represent only 6% of the global market[2] (less in Europe), they will remain competitors as new businesses come online, and old ones die.

To add to the pressures, domain growth across almost all TLD types and regions is at record lows and regulation is increasing. For a domain registry to be apathetic in the current climate is to risk obsolescence.

The European ccTLD community has always maintained a healthy dialogue and culture of sharing. Much of the early knowledge shared by registries related to registry operation, security, policy and legal affairs. We are now starting to see some changes to the types of discussion. Although the topics mentioned remain fundamental, data analysis is emerging as vital in combatting the challenges and growth issues faced by the industry. CENTR is an exchange forum and acts as a centralised body of data intelligence for European ccTLDs. Services in data have expanded considerably in recent years. Today CENTR offers members and the public consistent market reporting on the status and trends of the domain name market among a string of interactive dashboards to help visualise and explore different data sets.

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2   https://stats.centr.org/stats/global
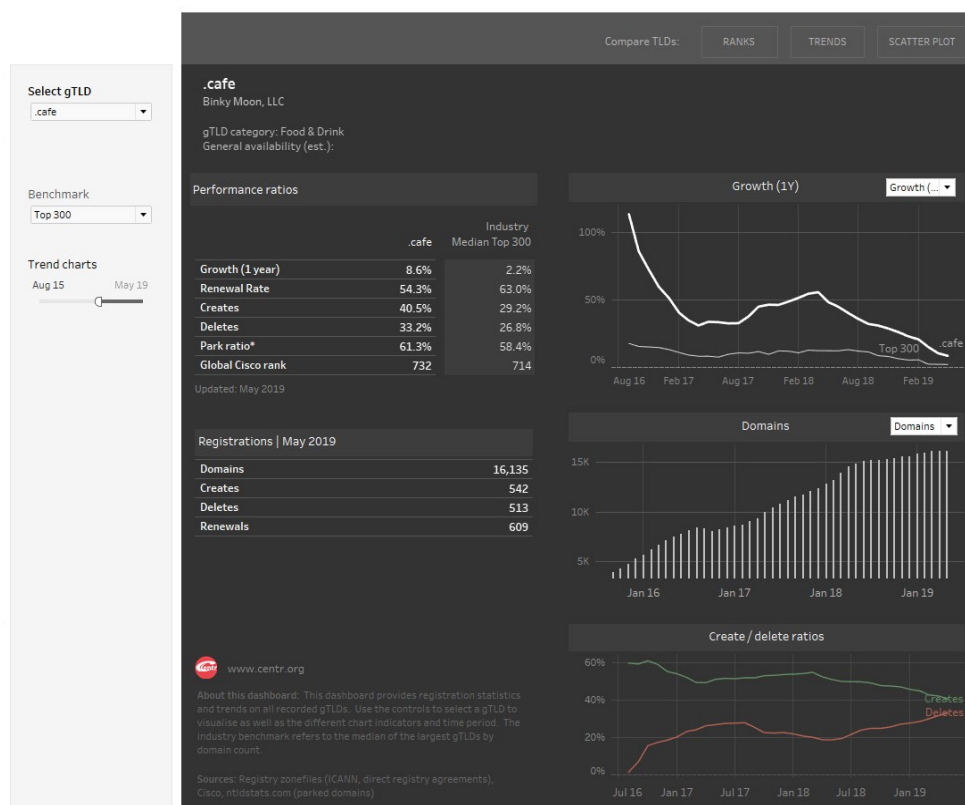
On the previous page is a screen shot from one of the many interactive analysis dashboards on the CENTRstats data platform. The page provides a TLD profile view on its domain registrations (total domains, creates, deletes etc). It allows members to quickly visualise how different TLDs are evolving with a benchmark to other groups (in this case, the median top 25 member ccTLDs). These sorts of views are helpful for many registries in providing firstly a clear overview of the trends and secondly context to how those trends relate to the market.

CENTR member registries also have a need to understand the legal and policy landscape which in recent years is only becoming more important and more impactful to ccTLDs. Through structured surveys and powerful data visualisation tools, we are now able to offer an overview and analysis such as the below dashboard. Often members also use this sort of policy data to discuss internally with stakeholders and even governments and paint a picture of how they sit amongst their peers.
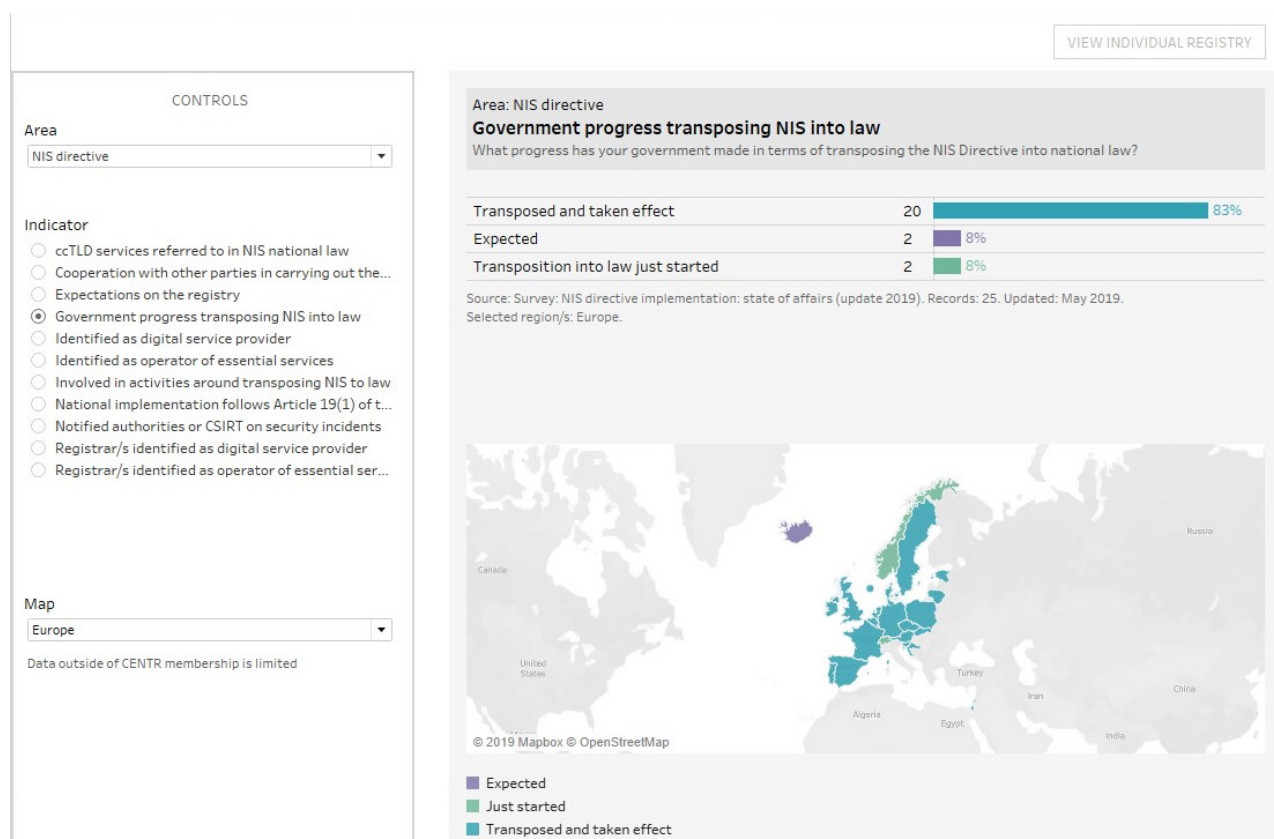
The dashboards described above are only a couple of many now offered in the CENTR data platform. Members in effect have a self-service feature allowing them to quickly look up information on the market to help inform their strategic and operational decisions complimenting the in-person and email dialogues around the community.

An interesting area which has emerged in the past few years relates to domain name usage data. Traditionally, registries have had limited interest in this area. However this attitude is changing due to the continued growth in registry security (an area close to the heart of many ccTLD registries). Having a 'healthy' zone has grown in importance, and so with it comes a naturally-growing connection to knowledge on the domain holder. This meant some ccTLDs were already delving into the field of domain name usage. We now see many ccTLD registries investing in domain crawlers to scan their zones for greater insight to how domains are being used. CENTR has also begun work in this area with the objective of providing data at market level and allowing for comparison among TLDs.

CENTR as an organisation also practices what it preaches in being a 'data-driven'. Internally, it maintains an increasingly large collection of data on meeting attendance, evaluations, report readership and others. It is all visualised for the benefit of management and the Board of Directors, which is often used in forming budgeting and strategic choices.

CENTR and ccTLD registries are increasingly investing in data and analysis to understand the market. But have they come too late? Is there enough time to build up the skills and stabilise the growth trend to ensure a sustainable future? Whether it be through diversification of revenue, changes to pricing or increased business intelligence, the existential threat of decline is looming and must be addressed.

The whole is greater than the sum of its parts

Whether it is how many biscuits to re-order for the staff kitchen or the budget requirement of the R&D team in 2020, data is crucial to any successful business. This should be no different to data on the world outside company doors. Data on the broader industry and its participants is important to gain perspective and context from. This role can often be achieved by a peak body or industry association such as CENTR. Fortunately, the willingness among European ccTLD registries to share data has been strong.

Data shared internally by members of CENTR is higher than ever! The association runs between 7-12 topic-based surveys per year (almost all initiated by individual members) with high response rates, has live connection to registration statistics of 46 registries (managing 56 ccTLDs) and sources many other datasets to enrich the database. All of this enables CENTR to provide important analysis on market trends in registrations, market shares, TLD popularity, financial and security performance, legal policy and, more recently, the exploration of how domains are being used. This ever-growing library of data is only possible through the contribution of many. The more contribution, the richer the analysis and greater value to all!

Just like CENTR, individual ccTLD registries as well as other industry associations have been increasing their investment in data to better understand domain names and the market. As gTLD registries work in many of the same markets as ccTLDs, they are also not immune to market forces. So how is data informing their policy? We need to talk about ICANN.

Show me the data! The ICANN 'establishment'

gTLDs represent around half of all global domains under management. Policy for these domains comes entirely from ICANN, a NFP in California whose policies are steered by volunteers from various stakeholder groups. Their tasks are challenging and diverse, as anyone who's attended an ICANN meeting can attest. However, is ICANN doing enough to become a data-driven organisation?
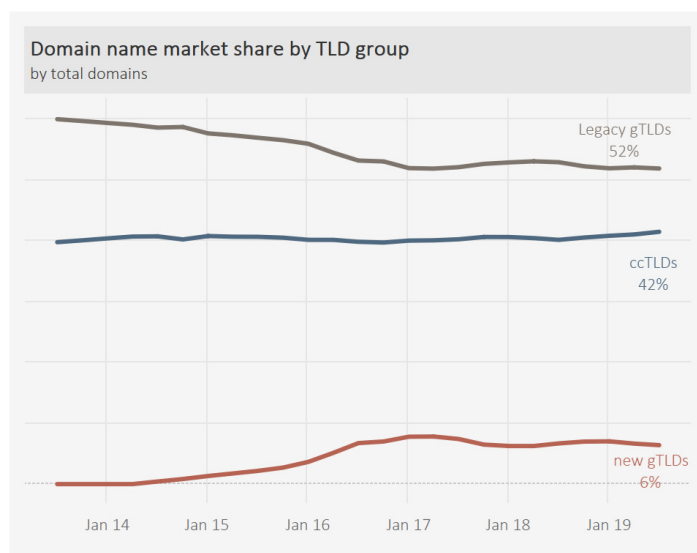
If the CEO of a shoe company saw a chart like this (see below) showing average growth of its entire product range, what would she say? Make more models of shoes? Perhaps. Although ICANN probably did not launch new TLDs because of slowing growth, they did none the less pour countless hours, hundreds of flights and significant financial resource into developing and launching a new set of TLDs some years ago.

As seen in the chart, the hundreds of new TLDs launched from 2014 to 2017 had very little impact the long-term growth trend. ICANN is fortunate to have access to a rich data set from its contracted parties (gTLD registries and registrars) which can theoretically help shed light on market conditions. Domain volume is certainly not the only marker of success; however, it does tend to be a reasonable indicator of customer behaviour and general market health. Was the investment and time spent in launching new gTLDs worth it? Should ICANN continue to spend more time in allowing for more? These questions should only be addressed with reliable and transparent data.
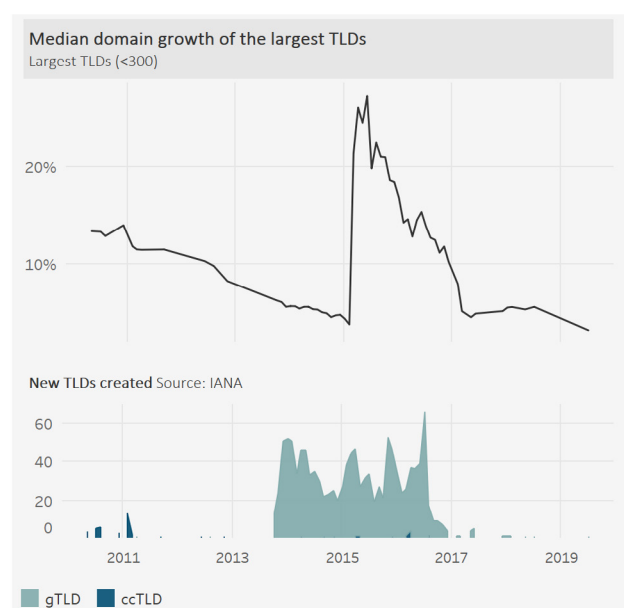
Source: CENTR. Shows median 1-year growth of largest TLDs (max top 300)

Despite the record low growth in the global domain market and little evidence of end-user demand, there are determined stakeholders within ICANN continuing to push for yet more gTLDs. As seen below, CENTR data shows that the gTLDs launched from 2014-2017 (which number in the hundreds), rose to a combined domain market share of 8% and have since declined to 6%. Although some of this is due to consolidation in gTLDs (a smaller number of gTLDs rising while many others declining), median growth rates have already fallen to rates equivalent with the oldest and largest TLDs. This is particularly concerning for some of those gTLDs, considering they have a fraction of the volume of the established TLDs. As mentioned previously domain volume is not everything. How those domains are being used is vital information, however in order to obtain that information, a solid foundation of basic data should first be established.

Domain name market share by TLD group
by total domains

Legacy gTLDs 52%
ccTLDs 42%
new gTLDs 6%

(x-axis: Jan 14, Jan 15, Jan 16, Jan 17, Jan 18, Jan 19)

Fortunately, we have seen in recent years an increased number of initiatives[3] that attempt to bring data into the foreground of ICANN policy discussions. These initiates are encouraging and should be further developed to ensure the organisation is able to achieve its mission of helping to "…ensure a stable, secure and unified global Internet"[4]. The harsh realities of the market are reported constantly around industry press. It is essential for the entire industry take stock of where domain names are at, how they are being used and ultimately record, analyse data to help illuminate a pathway for reinvigoration.

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3   Data initiatives - https://www.icann.org/resources/pages/metrics-gdd-2015-01-30-en, https://meetings.icann.org/en/ICANN58-topics#2, https://www.icann.org/opendata
4   https://www.icann.org/history

Council of European National Top-Level Domain Registries

CENTR is the association of European country code top-level domain (ccTLD) registries, such as .de for Germany or .si for Slovenia. CENTR currently counts 54 full and 8 associate members – together, they are responsible for over 80% of all registered domain names worldwide. The objectives of CENTR are to promote and participate in the development of high standards and best practices among ccTLD registries. Full membership is open to organisations, corporate bodies or individuals that operate a country code top level domain registry.

This paper is part of a series of articles covering industry research, historical data analysis and the future of technologies such as digital IDs, published over the course of 2019 to mark CENTR's 20th Anniversary. These publications do not necessarily present the views of CENTR or of the CENTR community.

CENTR wishes to thank and acknowledge the organisations which have so generously contributed to the efforts of its 20th Anniversary:

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