

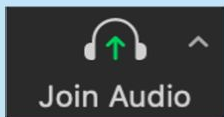
I C A N N 77
POLICY FORUM
WASHINGTON, D.C.
12-15 June 2023



Virtual Participants

1

Connect your **Zoom Audio** to listen to the meeting.



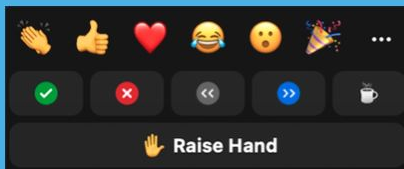
2

Turn on your **Zoom Video** to be seen by other participants.



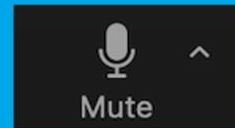
3

Raise your hand in **Zoom Reactions** to join the speaking queue.



4

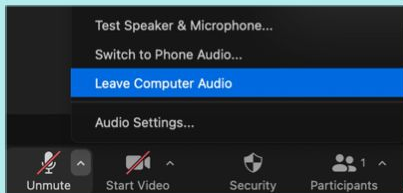
Unmute your **Zoom Audio** when called upon to speak.



On-Site/In-Room Participants

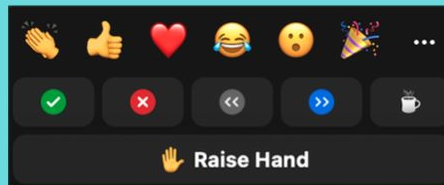
1

Do **not** connect your **Zoom Audio**. To disconnect your audio, click on the **Up Arrow** and select **Leave Computer Audio**.



2

Raise your hand in **Zoom Reactions** to join the speaking queue.



3

Use the physical microphone at your seat or in the aisle when called upon to speak.



ccTLD Registration Trends Session

Tuesday, 13 June 2023 | 14:45-16:15 UTC (10:45-12:15 local)

Session Chair: Fernando España (.us)

- Matthew Zook (ZookNIC)
- Serge Sanou (.bf)
- Ai-chin Lu (.tw)
- Kristian Ørmen (.se)
- Francisco Patiño (.ec)
- Sean Copeland (.vi)

Trends Among ccTLDs

Dr. Matthew Zook, ZookNIC

June 13, 2023

ICANN77, Policy Forum

ICANN77
WASHINGTON, D.C.

ZookNIC
Internet Intelligence

Overview & Background

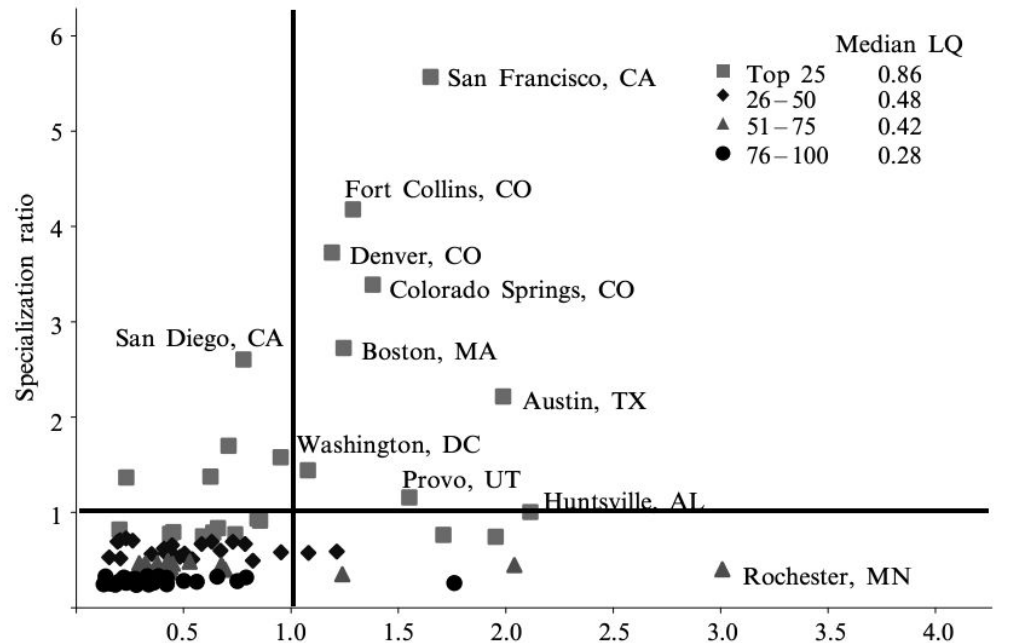
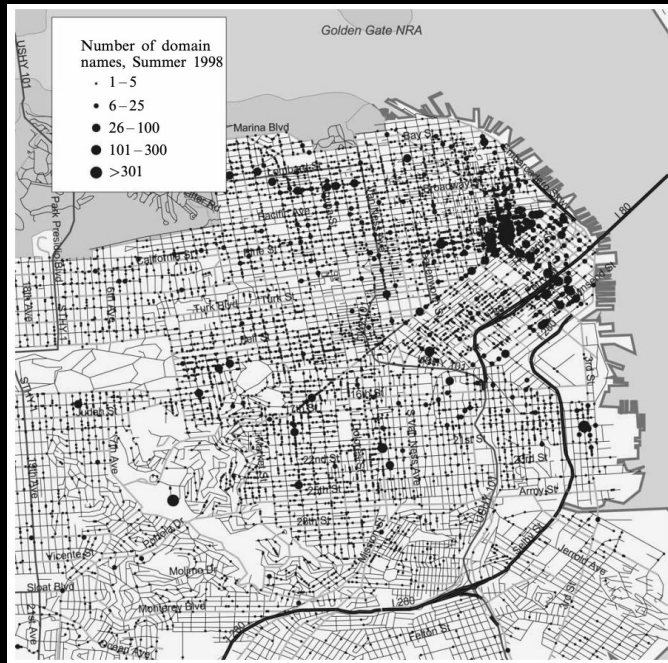
Overview

- Started in 1998 as part of my PhD dissertation.
- Research project tracking trends within domain names for the past 25+ years.
- Sources for ccTLDs includes registry operator reports, personal communications, and zone file analysis and related technical analysis.
- Contributes to ongoing studies the industry (e.g., ICANN Domain Name studies, VeriSign's Domain Name Industry Brief, GII Innovation Index, WSIS reports, etc.)

Matthew A Zook

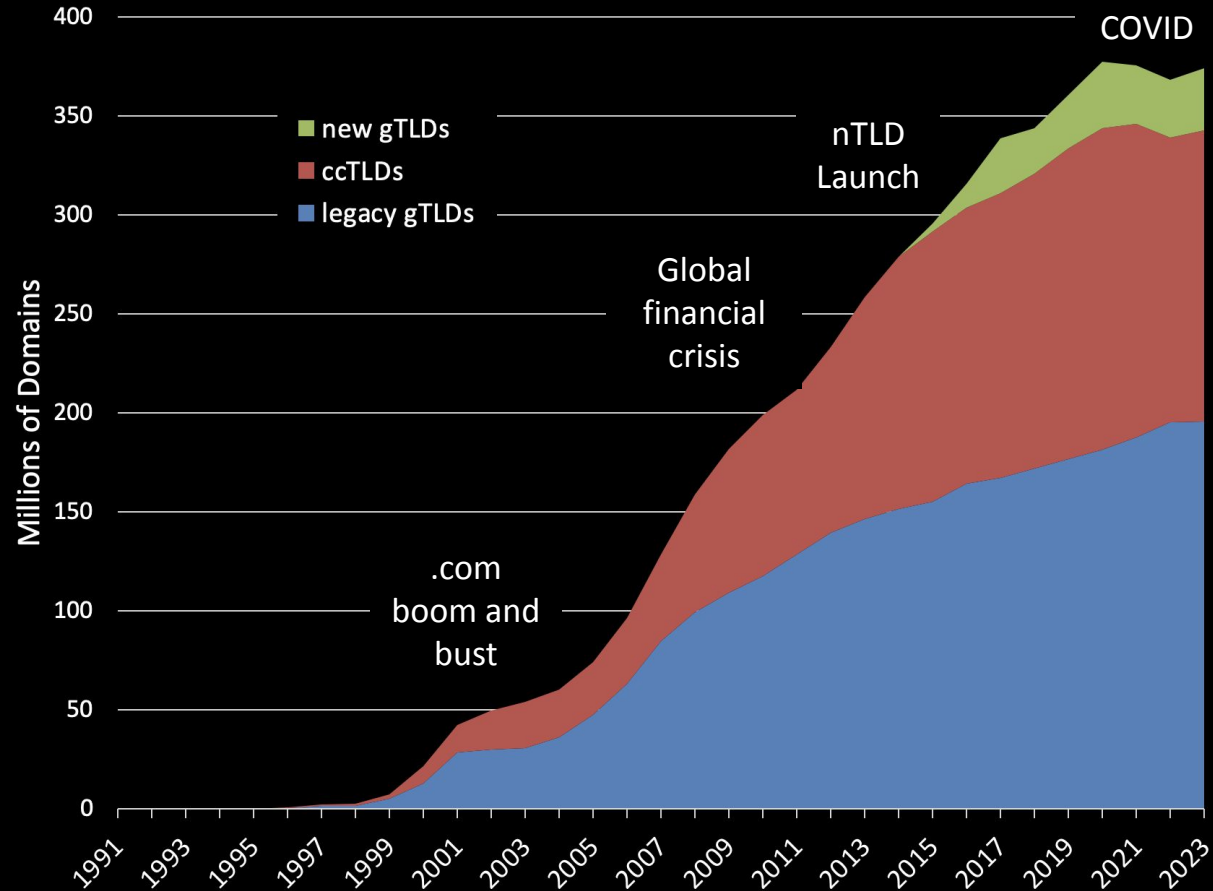
DOI:10.1068/a32124

The web of production: the economic geography of commercial Internet content production in the United States

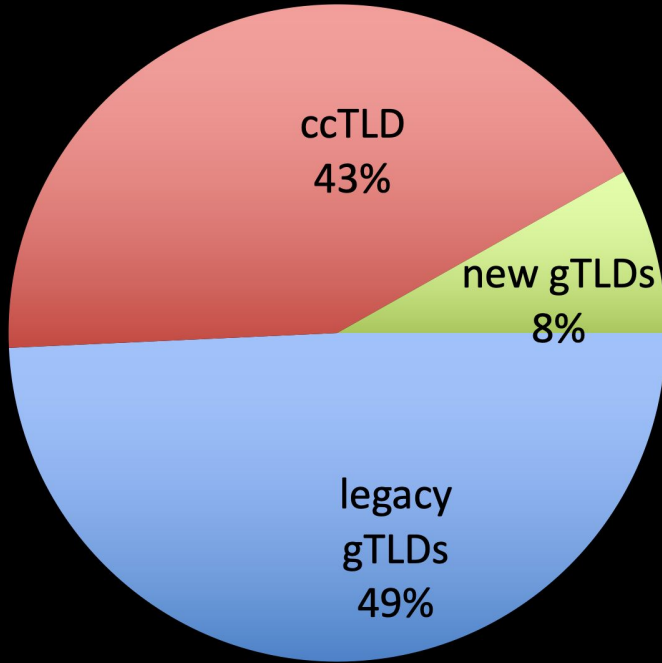


Comparing TLD Types

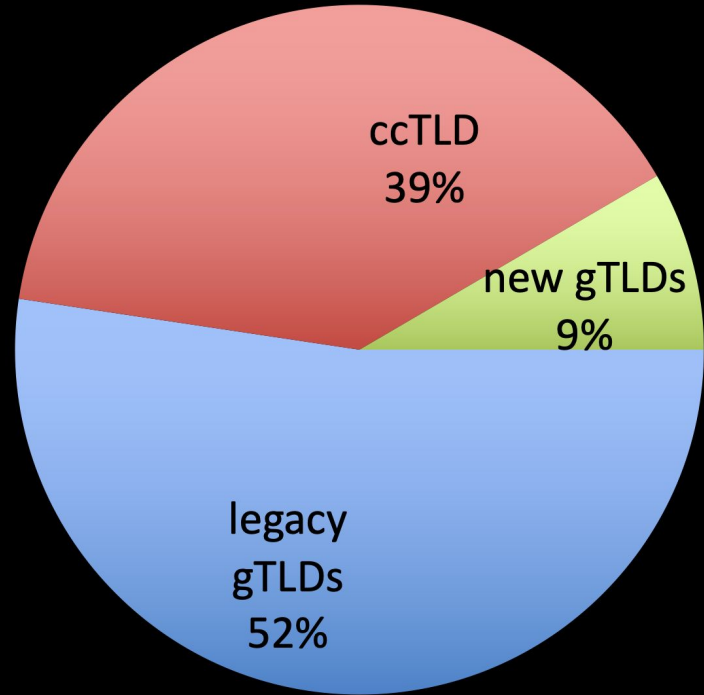
Historical Growth of Domain Names



Distribution by TLD

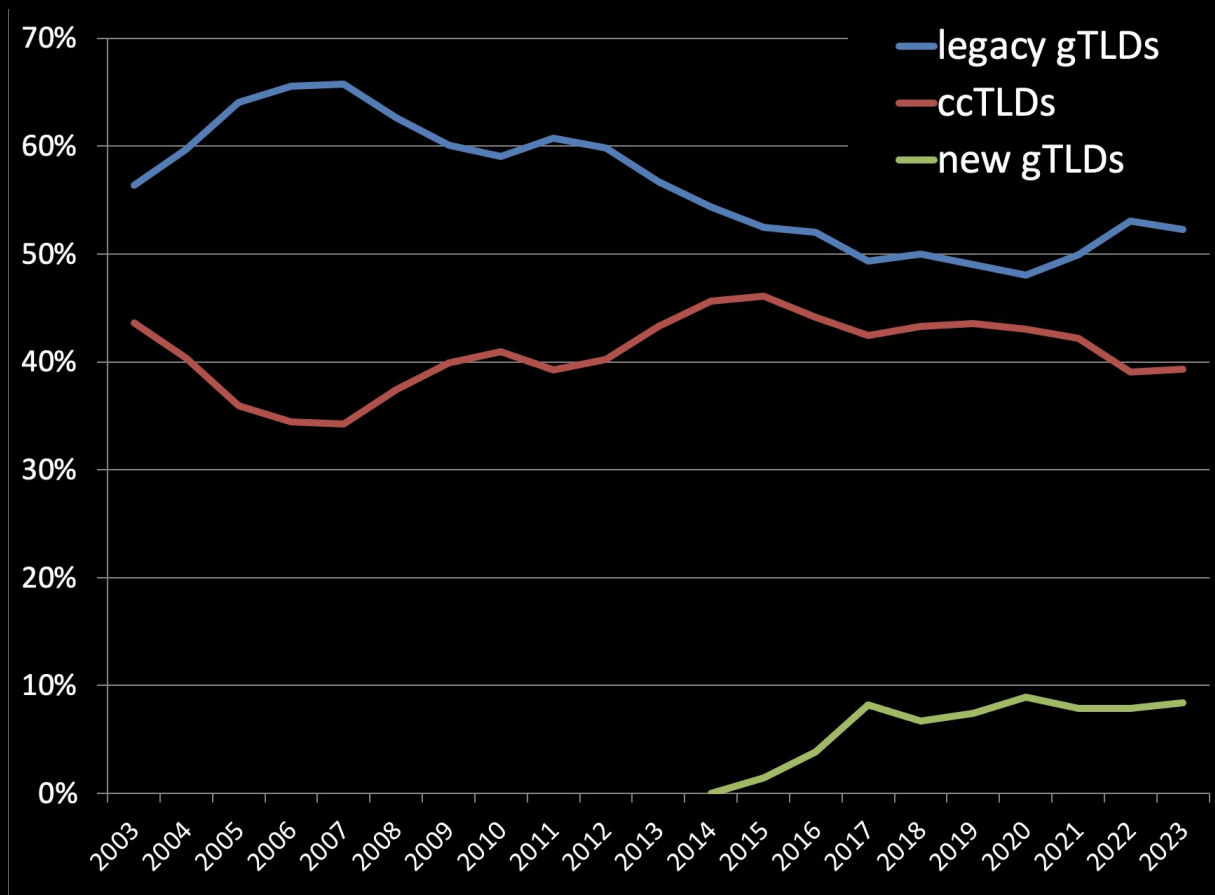


2017: 339 Million Domains

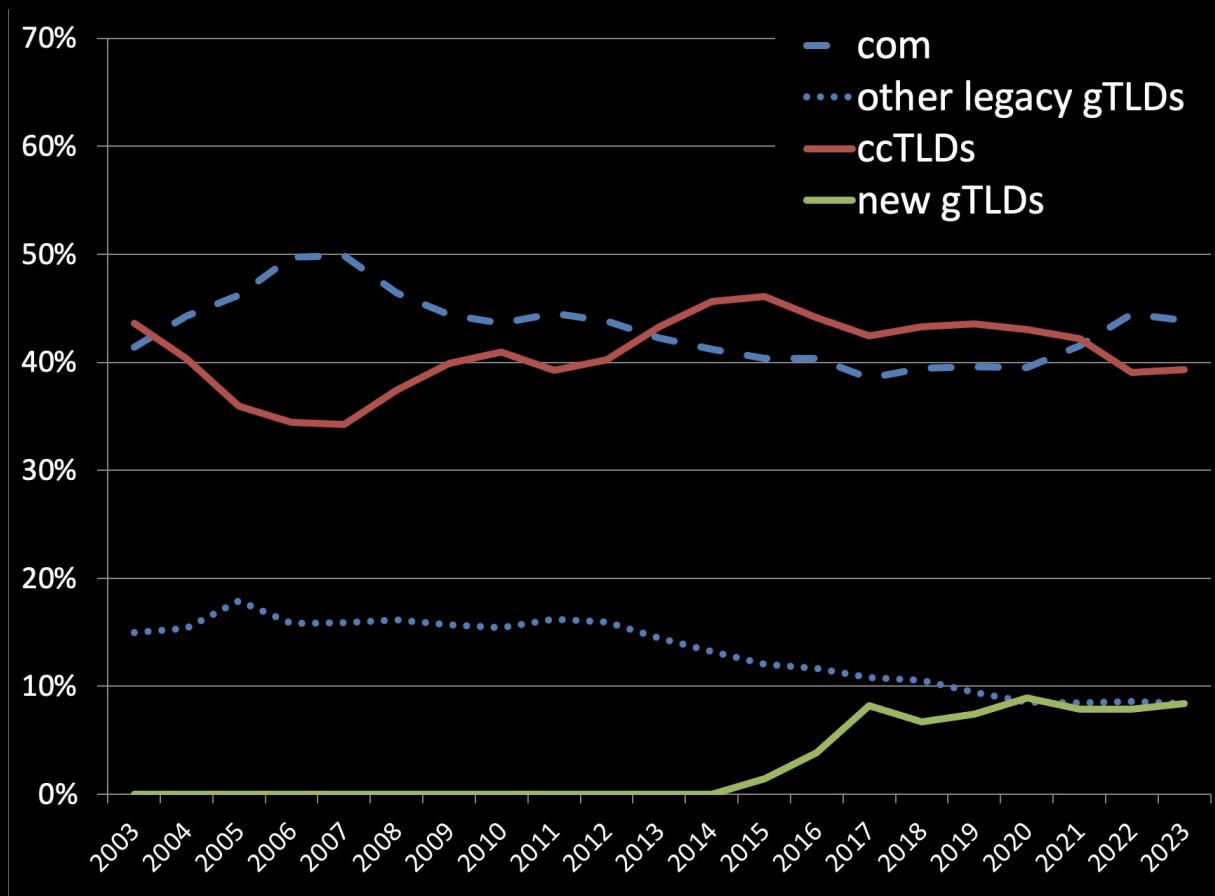


2023: 375 Million Domains

TLD Type Share of All Domains

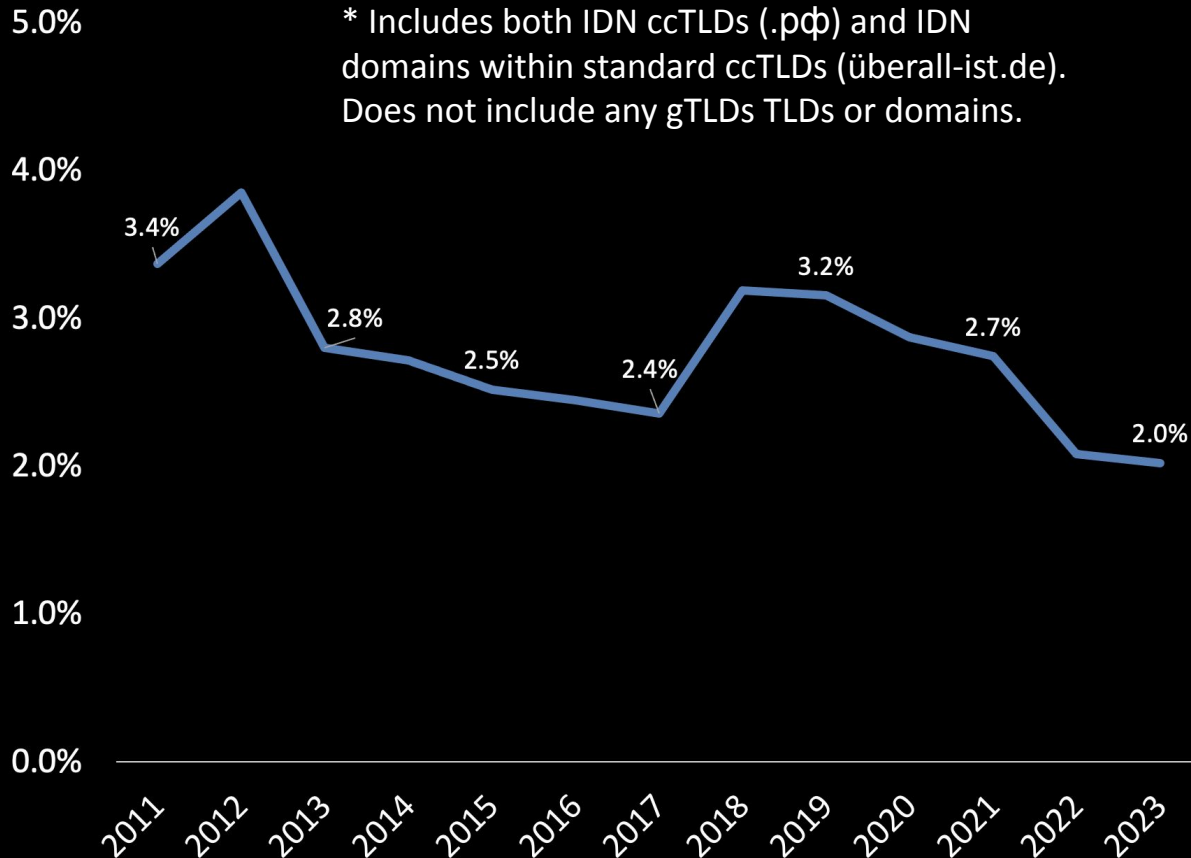


TLD Type Share of All Domains



Differences within ccTLDs

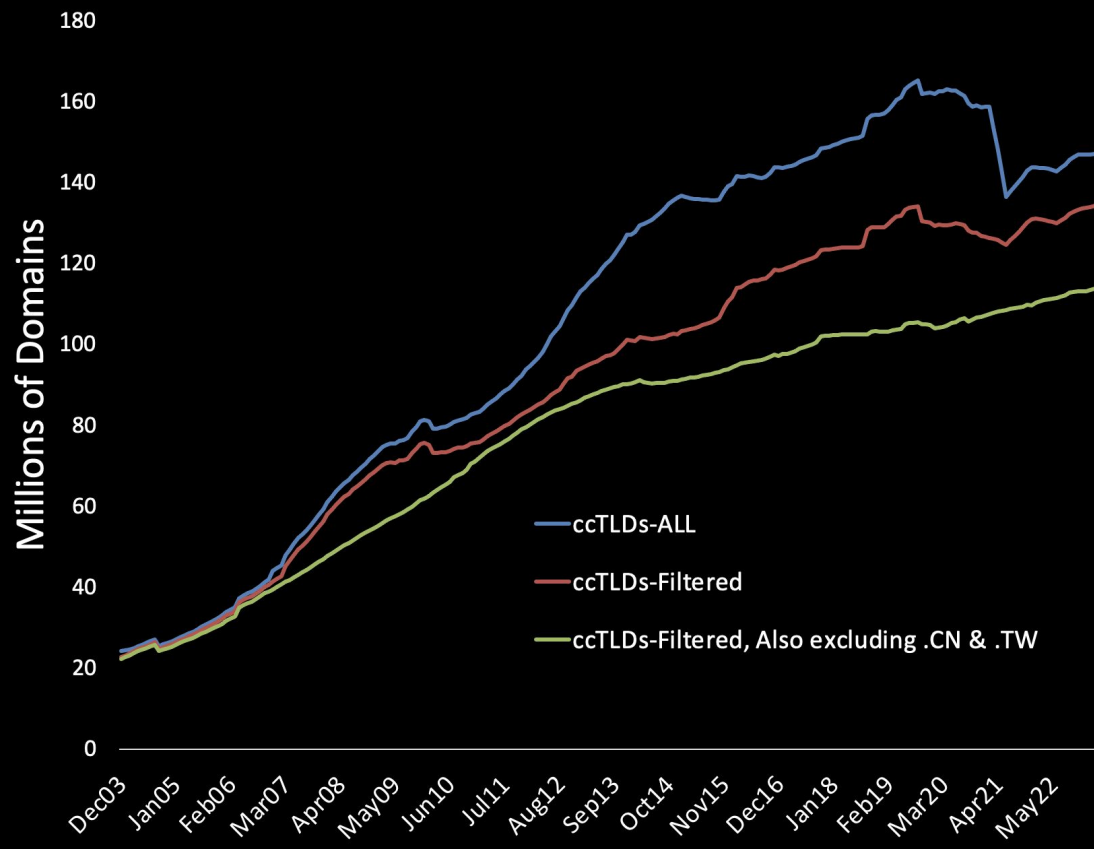
% of ccTLD Domains* that are IDN



Filtering some ccTLDs for analysis

- When doing regional comparisons and explanatory factor analysis it is useful to filter ccTLDs that are outliers in terms of domains per capita.
- These ccTLDs are (1) used as gTLDs or “domain hacks” or (2) associated with territories with small populations.
- Filtered ccTLDs (38 in total)
.ac, .ai, .aq, .ax, .cc, .ck, .cx, .eh, .fk, .ga, .gf, .gg, .gp, .gq, .gs, .hm, .im, .io, .je, .li, .me, .mq, .ms, .nf, .nu, .pm, .pn, .pw, .re, .sh, .su, .tf, .tk, .tv, .va, .wf, .ws, .yt

Overall numbers for ccTLDs



ccTLDs by Region per 1,000 population

ccTLDs per 1,000 population

	<i>2011</i>	<i>2014</i>	<i>2017</i>	<i>2020</i>	<i>2023</i>
Africa	0.9	1.3	1.7	2.8	3.9
Asia/Australia/Pacific	1.3	2.3	3.5	3.9	4.1
Europe	80.6	95.4	99.1	100.5	104.6
Latin America/ Caribbean	10.7	15.2	13.5	14.4	17.9
North America	9.9	11.3	13.4	12.1	14.0

Average Annual Growth Rate from Previous Period

	<i>2011</i>	<i>2014</i>	<i>2017</i>	<i>2020</i>	<i>2023</i>
Africa	--	15%	12%	21%	13%
Asia/Australia/Pacific	--	24%	17%	4%	1%
Europe	--	6%	1%	0%	1%
Latin America/ Caribbean	--	14%	-4%	2%	8%
North America	--	5%	6%	-3%	5%

Explanatory factors

Correlation

Correlations with Number of ccTLDs

	Correlation (r)	n
Population	0.482	207
Government effectiveness	0.258	191
Price (\$)	-0.197	204
# of .com registered in country	0.189	204
Population using the internet	0.184	199
GDP_per_capita	0.155	200
Trade Openness	-0.094	182

Simple Linear Regression

	B	SE B	β	t	Sig.
Population	0.0070	0.0010	0.458	7.379**	<.001
Government effectiveness	499,458	144,658	0.217	3.453**	<.001
Price (\$)	-3,067.9	1,985.9	-0.098	-1.545	0.124
Constant	558,775	186,005		3.004	0.003

Dependent Variable: Number of Domains in a ccTLD, Apr2023

Adjusted R-squared = 0.284

Take-aways

- In general, ccTLDs are growing but (1) more slowly than previously and (2) at a slower rate than other TLD categories.
- Significant differences in ccTLD domains per capital by ICANN region with faster growth rates in Africa and Latin America/Caribbean.
- Population and governmental effectiveness are top determinates for demand for ccTLD.
- IDN domains remain a relatively small part of ccTLDs.

Thanks

Dr. Matthew Zook

zook@zooknic.com

AfTLD : The ONDA Project

Dr. Serge Sanou

President

Executive Committee

Secretariat@aftld.org

<http://www.aftld.org>

ICANN 77 Meeting | June 2023

Africa Top Level Domains Organization



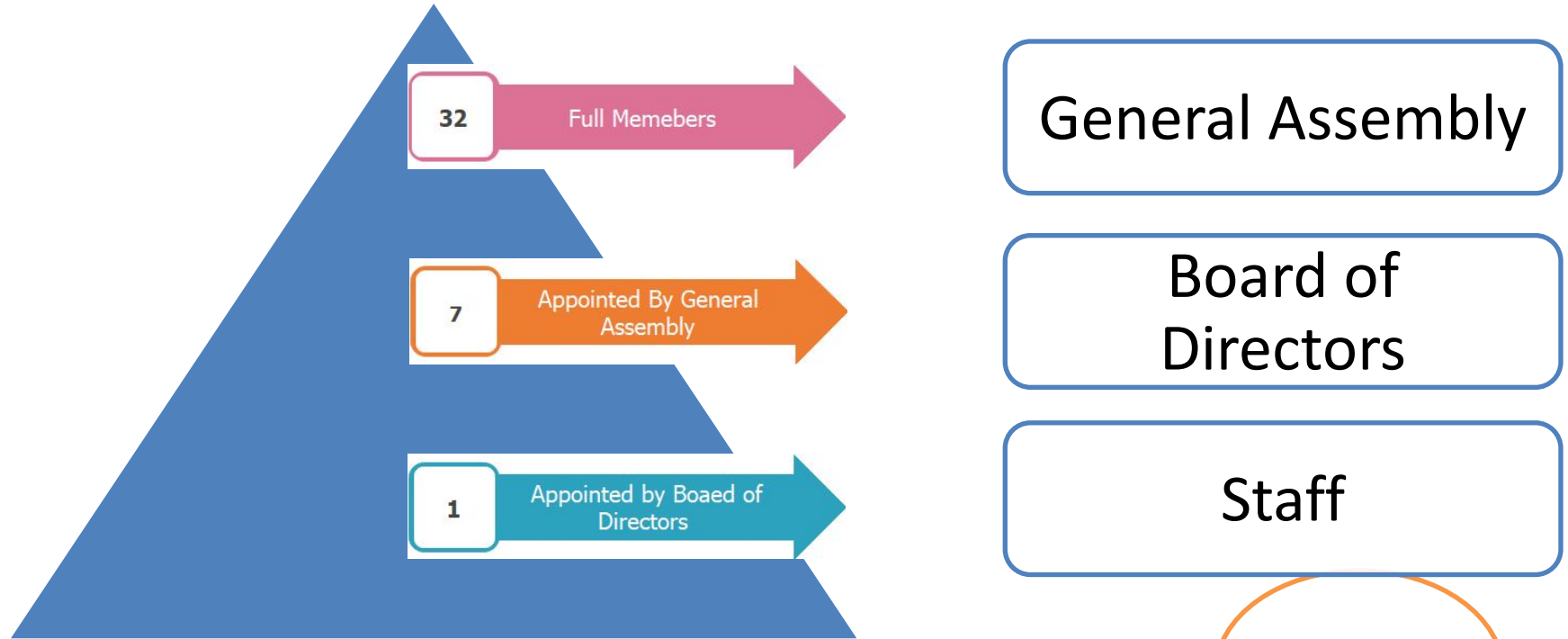
Who Are We?

AfTLD | Home of Africa National TLDs

AfTLD acts as a focal point for all the African TLDs Managers, to discuss matters of policy that affect ccTLDs globally and then to present the group's position as one voice.



Structure



Summary of 2023 activities adding Value to ccTLDs

- (Measurements) African TLD Observatory stats.aftld.org with the support of ICANN, ISOC and AFRINIC, Investors need data and Market Intelligence
- (Capacity Development) Membership Support to organize virtual webinar's on Marketing and Technical Training; ccTLD Business Continuity and Disaster Recovery roundtable.
- (Stakeholder Engagement) Supporting African ccTLDs to establish National DNS For a that enable them to build partnerships and grow local ccTLD Brands
- (Brand Development) Assisting local ccTLDs to build their brands.
- Contributions to the ccNSO (Vice Chairmanship, Councillors)
- Delegation of .GM, Delegation of .GQ
- Africa DNS Forum
- Africa DNS Awards
- Supporting Establishment of National DNS For a (Benin, Burkina



AFTLD Working Groups

- Technical
- Research (Observatory)
- Marketing
- Universal Acceptance
- Constitution Review
- Meetings



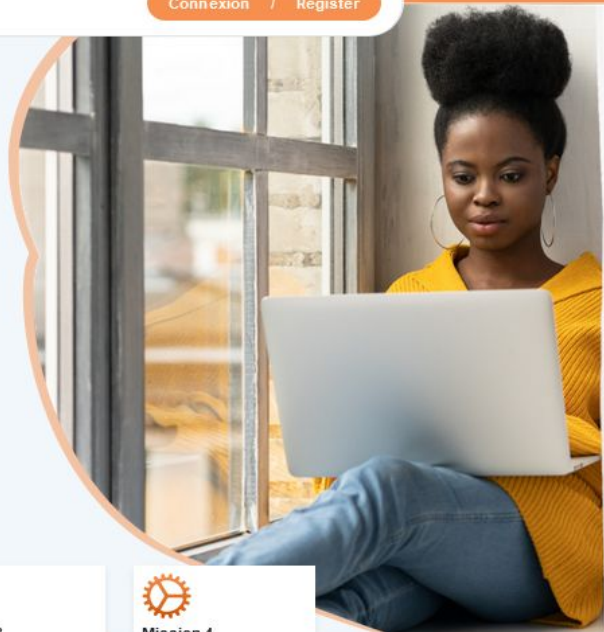
ONDA.africa project

- The objective of the project is to establish an observatory for monitoring evolution of domain names in Africa
- The observatory will consist of a portal managed by AFTLD collecting data from registries, registrars and registrants in Africa in addition to other domain name ecosystem players, collating the data and presenting it in ways that can support decision making.
- The projects key objectives include interalia Improving the collaboration of institutional Internet players at the national (ccTLDs , Registrars, registrants) and international (AFTLD, AFRINIC, ICANN, ISOC, OIF, CENTR, LACTLD, APTLD) levels with a view to the common development of the Internet.
- The project seeks to provide on demand information on the status of country code top level domain registries in Africa



African Domain Name Observatory (ADO)

This project consists of setting up an Observatory of African Domain Names (ADO) within the International College of AFNIC in the form of an effective mechanism that would install in the long term the collection of information on the management of African domain names and the monitoring of their evolution.

[See our indicators](#)

The missions of
The African
Domain Name
Observatory



Mission 1

Build a database of information on African ccTLDs that can be used to develop action plans for all Af parties.



Mission 2

Produce reports whose contents come directly from the actors of African Internet governance (registries, registrars, ISPs, ...).



Mission 3

Monitor the evolution of African domain names and periodically publish statistics on domain names in Africa.



Mission 4

Become an international reference point for ccTLD statistics.

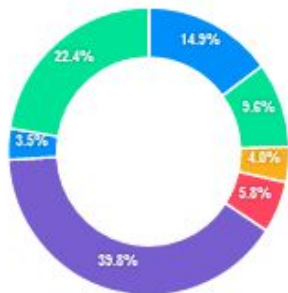


The indicators

We have 17 categories of 71 indicators

ccTLD organizational model (2R/3R, others, ...)	Type of Business Model Adopted	Domain name statistics	Pricing policy
Accreditation procedure	Naming Charter	ccTLD automation process	Whois Service
Dispute Resolution Framework	ccTLD Governance Framework	Institutional anchoring	Additional service provided by ccTLDs
Delegation/relegation of ccTLD management	E-reputation of the ccTLD	ccTLD Security	Commitment to the development of Internet governance policies
Other: Impacts of COVID_19 on the operation of the ccTLD			



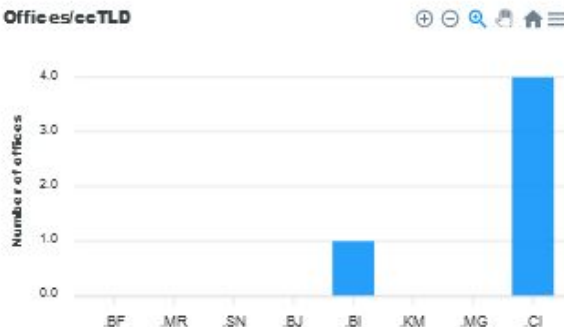


■ .MG ■ .BI ■ .MR ■ .BF ■ .CI ■ .BJ ■ .SN ■ .KM

Distribution of the number of Domain Names by ccTLD

This graph shows the distribution of the number of Domain Names by country.

Offices/ccTLD



Distribution of the number of Registrars by ccTLD

This graph shows the distribution of the number of Registrars by country.

Domain evolution

From the year 2021 to the year 2023



Evolution of the total number of domain names between 2021-2023

This graph shows the evolution of the total number of domain names for all the countries studied over a period of several years.

[View all statistics](#)



Africa ccTLD Statistics

COUNTRY	ccTLD	OPERATOR	2021	2022	2023
Botswana	.BW	Botswana Communications Regulatory Authority	8836	9384	10282
Burkina Faso	.BF	Autorité de Régulation des Communications Electroniques et des Postes (ARCEP)	1524	2000	2096
Chad	.TD	ADETIC	648	655	1025
Comoros	.KM	Comoros Telecom	134	300	432
Cote d'Ivoire	.CI	ICT regulator authority of Ivory Coast (ARTCI)	8725	13395	17000
Egypt	.EG	Egyptian Universities Network (EUN)	7847	10205	10000
Lesotho	.LS	Lesotho Communications Authority (LCA)	1500	1720	2206
Madagascar	.MG	Networking Information Centre, Madagascar	4180	4180	5700
Moroco	.MA	ANRT	80684	80940	114310
Nigeria	.NG	Nigeria Internet Registration Association	150111	153665	185220
Senegal	.SN	Networking Information Centre, Senegal	4945	5115	9000
South Africa	.ZA	ZADNA	1300000	1232416	1350377
South Sudan	.SS	National Communication Authority (NCA)	16	16	600
Sudan	.SD	Sudan Internet Society	3597	3671	4800
Zambia	.ZM	Zambia Information and Communications Technology Authority	5292	6162	7675

Countries are displayed alphabetically



Thank You!

**Africa Top Level Domains
Organization**

Secretariat@aftld.org

<http://www.aftld.org>

Home of Africa National TLDS



TRACKING THE .TW DOMAIN NAME REGISTRATIONS OVER TIME

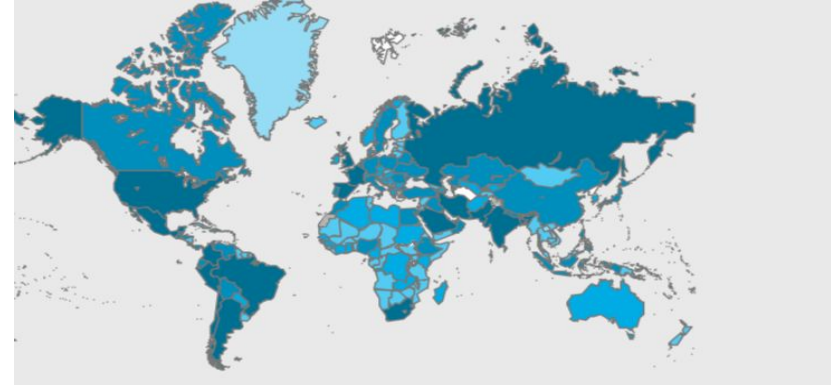
34

Ai-Chin Lu 2023/06/13

Globally, as of today, there have been over 760 million confirmed cases of COVID-19, including over 7 million deaths, reported to WHO.

Pandemic Severity Multiplies: 22-Fold Increase in Cases, 7-Fold Increase in Fatalities (Comparison with Two and a Half Years

Vaccines and precautions have reduced concerns about COVID-19, but caution is still necessary.



TAIWAN/TWNIC MAJOR MEASURES

TAIWAN

- Taiwan's proactive measures effectively combated the pandemic.
- Mask requirements still remain mandatory in hospitals and other specific locations.

.tw Registry-TWNIC

- Implementation of more flexible work-from-home policies.
- Adoption of a hybrid conference format.
- Utilization of Microsoft Teams for employee communication.
- Use of cloud-based services.
- VPN setup for secure connections.
- Customer service provided via VOIP.

Tracking the Registration Trend

**Companies
shifting to online**

**Companies closing
down**



**Establishing
online
companies**

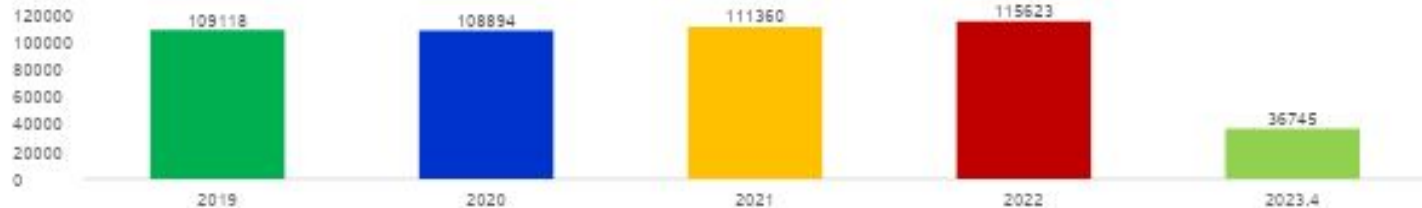
**Increasing more
new companies**

THE NUMBER OF DOMAIN NAME NEW REGISTRATION/RENEW/DELETE (2019-2023.04)

Graph 1:
com.tw
New
Registration



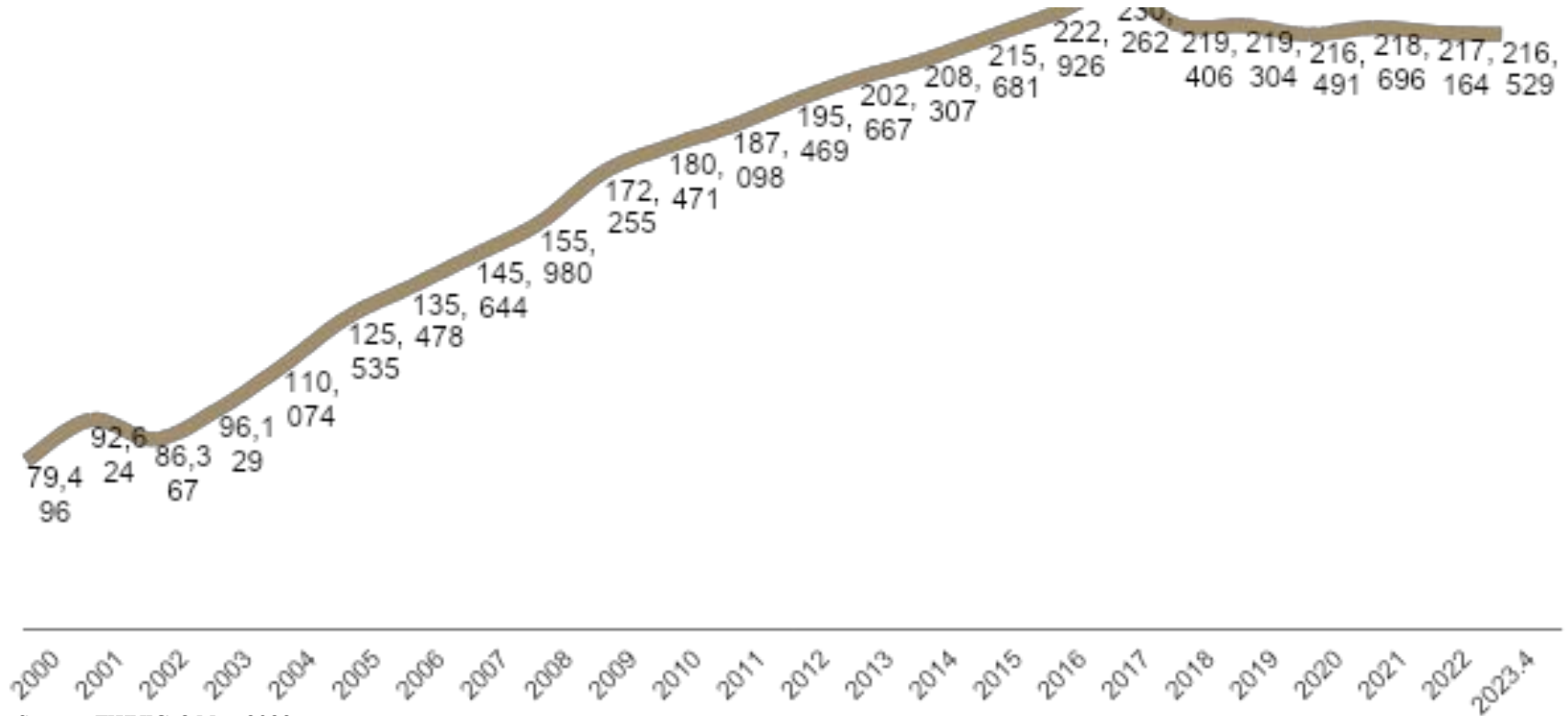
Graph 2:
com.tw Renew



Graph 3:
com.tw
Deletion

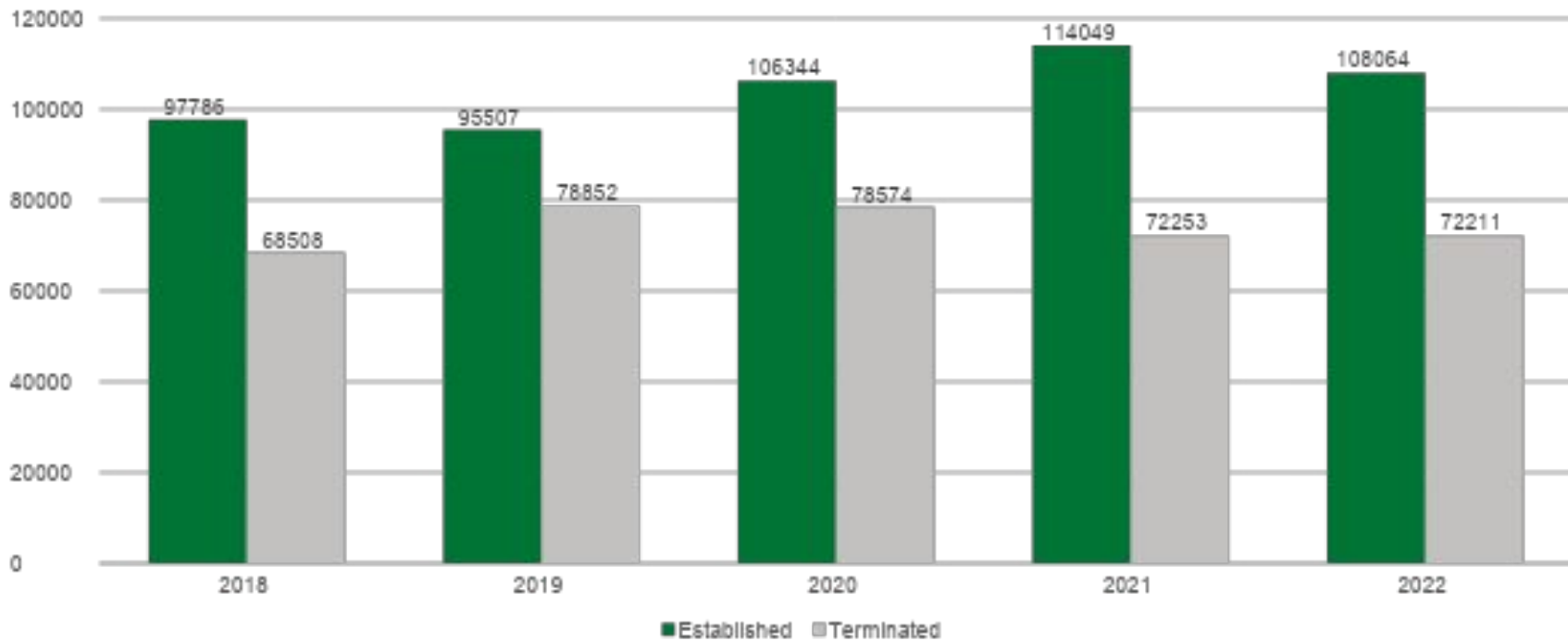


THE NUMBER OF DOMAIN NAME -.COM.TW (2000-2023.04)



Source: TWNIC, 8 May 2023

COMPANY ESTABLISHED AND TERMINATED (2018-2022)



Source: Dept. of Statistics, MOEA, 8 May 2023
(<https://www.moea.gov.tw/Mns/dos/home/Home.aspx>)

- The overall volume of .com.tw registrations remains stable.
- Minimal Variations in New Domain Registrations, Renewals, and Deletions.
- Consistent Renewal Rate Above 80% over Four Years.
- Stable Annual Company Establishments and Terminations in Taiwan (2019-2022)
- Stable Domain Registration Trend of .tw in Recent Years with Limited Impact from COVID-19.



Challenges

- Economic recession
- Inflation
- Potential epidemics,....
- Numerous competitors-gTLD, social media, new media platform

The following tasks are actively promoted

- Continuous launch of preferential projects
- Responsive customer service
- Education and training
- Data security assurance



THANK YOU!

.se registration trends

Kristian Ørmen

New focus

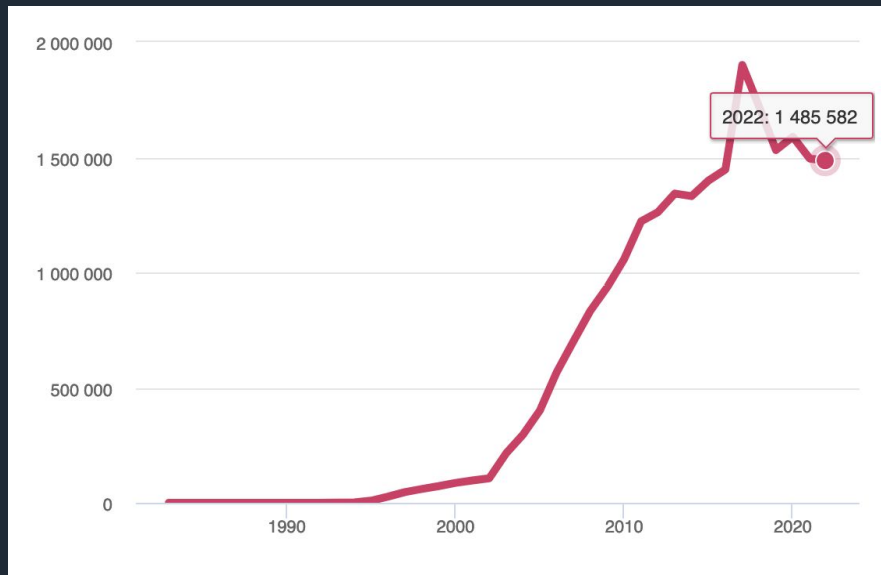
Since many years back .se have run many different campaigns, both to increase awareness and to stimulate growth.

Some campaigns have been very price aggressive and has led to large increase in total amount of domains

From 2021 we stopped running these types of campaigns

2022 after a full year without any campaigns at all we evaluated and decided a new focus going forward





Stats

I would claim that i can rise .se domains to 2 million domains if i really wanted to

But looking at the stats even just with a quick glance, it looks like most of the campaign domains disappears again quickly

And do we as a ccTLD really want to disturb the market to much or should we leave it more to the registrars?



New price structure

With a strong local market for our tld we can try to steer the trends in the way we want by changing our price structure

Very low priced domains, often have bad quality registration data and more abuse



New price structure

We have therefore increased price on new registrations with 20 SEK

And we then give discounts on new registrations if certain quality criteria is fulfilled

- New domain registrations validated with eID gets 20 SEK discount
- Registrars with more than 70% DNSSEC on their full portfolio gets 20 SEK discount on new registrations.



New price structure

Registrars can get up to 10 SEK per new domain registration back, by applying for our co-funded marketing programme.

They need to fund 50% of the campaign themselves

They need to promote our TLD in a positive way



End results

We expect a negative trend in our total amount of domains

But we expect a positive trend in the quality of our domain registrations



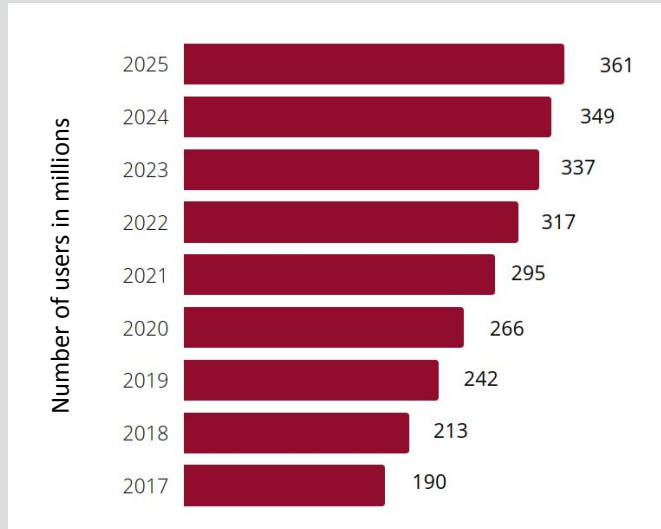
e-Commerce Ecosystem

Evolution, trends, present and future of eCommerce
and its impact on ccTLDs.



eCommerce Evolution

Latin America is home to approximately 300 million digital shoppers, a number that is expected to grow by more than 20% by 2025.





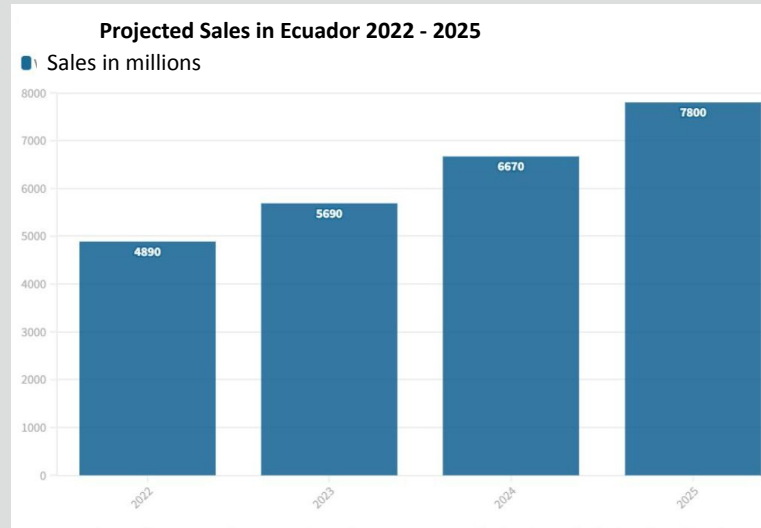
eCommerce Evolution

Although e-commerce adoption in this part of the world is still lower than in other emerging regions, e-commerce sales in Latin America were worth approximately US\$68 billion in 2020 and are it is expected that in 2025 it will grow to 160,000 million.



eCommerce Evolution

In Ecuador in particular, during 2022 online sales reached 4.89 billion dollars and a growth of 16.36% is expected in 2023:

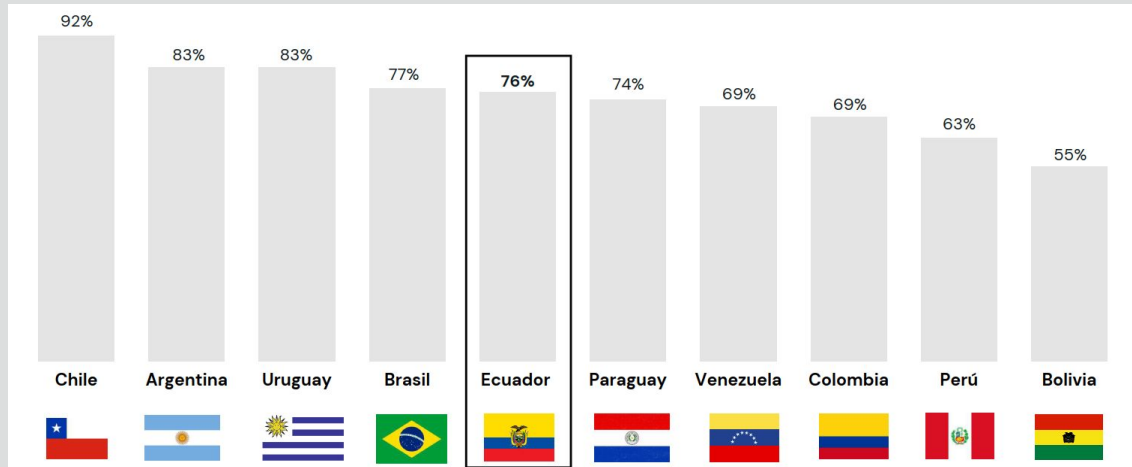




What are the drivers of this trend?

Greater connectivity and technological access

Ecuador has 76% of the population with Internet access, ranking fifth in Internet penetration in South America:





What are the drivers of this trend?

Better tariff regulations



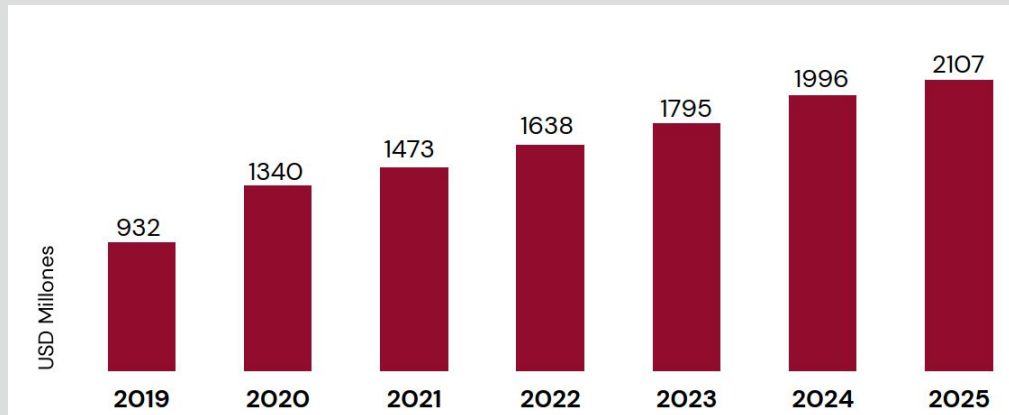
Ecuador eliminated tariffs on computers, tablets, and smartphones to spread access to these tools for work and education.



What are the drivers of this trend?

Pandemic

The pandemic accelerated the digitization process in Ecuador, increasing sales in digital media. For example, only for national retail, from 2019 to 2020 the increase in digital sales was 44%, going from 932 million to 1340 million:





¿How has this impacted our ccTLD?

Quantitatively

During the pandemic, the registration of new domains grew. In 2019 new domains were 9,169, a number that increased by 22% for 2020 to a total of 11,169 new domains. In 2021, 9,354 were registered, while 2022 marked 8,230 new records. So far in 2023, 2,666 new records have been obtained.





¿How has this impacted our ccTLD?

Qualitatively

Users began to use the .ec domain as the ideal domain for ecommerce.

.ec = ecommerce





What have we done to deal with the impact?

Free domains for student internships



Nic.ec, in favor of education, provides as a tool for student internships at universities and technological institutes, .ec domains at no cost with a duration of 3 months for each domain, in order to educate from the institutions and generate a community that knows the domain extension of Ecuador and e-commerce on the internet (.ec)



What have we done to deal with the impact?

Free mail for the whole community



NIC.ec developed a free mail system called MAIL.ec, where anyone can easily register their mail with their name, for example, rosa@mail.ec. Offering a free email with the .ec extension improves the online communication of Ecuadorian companies and organizations and enhances their online credibility. In addition, the use of the .ec domain is encouraged and increases its visibility online, which in turn can improve connectivity and access to the Internet in Ecuador.

What have we done to deal with the impact?

Free webinars



In order to provide business know-how to our community, we have developed a schedule of free webinars in different disciplines: marketing, finance, technology, legal, among others. These webinars are an effective tool to educate businesses on the latest trends online and how they can benefit from having a .ec domain.



What have we done to deal with the impact?

RevistaIdentidad.ec



We developed RevistaIdentidad.ec, a free medium that aims to disseminate the importance of the .ec domain, Internet business, and the dissemination of various aspects of knowledge that arise from research and technology. The magazine's content helps users improve their digital skills and stay current in an ever-changing digital environment.



What have we done to deal with the impact?

Collaboration with Chambers and Associations



Trainings are offered to chambers and associations, which help companies better understand the benefits of using a .ec domain, which helps them improve their visibility and online presence in the Ecuadorian market. In addition, promotions and discounts are generated for the registration of the .ec domain so that companies can improve their online presence in a more affordable way.



What could happen in the future?

Increased competition for popular domain names



With the continued growth of e-commerce, the demand for domain names is likely to continue to rise. Businesses and entrepreneurs will look to secure relevant domains for their websites and online stores. This can lead to increased competition for popular domain names.

What could happen in the future?

Price increase in premium domains



With increased competition for popular domain names, the value of premium domains is likely to increase. Domains that are short, easy to remember, and contain relevant keywords may have higher market value. This can open up opportunities for domain investors and speculators.



What could happen in the future?

More versatile ccTLDs



As e-commerce evolves, new industry-relevant domain extensions emerge such as .shop, .online, .store, a ccTLD like .ec can become an ideal global alternative for e-commerce since it is shorter and it has its initials.

What could happen in the future?

Artificial intelligence will be the protagonist



Overall, AI can bring efficiency, advanced analytics, personalized recommendations, and security improvements to the domain registration industry. However, it is important to highlight that the successful implementation of AI will require a combination of high-quality data, robust algorithms, and the ability to adapt to an ever-changing environment.



THANK YOU!

Francisco Patiño

CMO - NIC.ec

Email: gerenciamarketing@nic.ec

Phone: + 593 96 295 3108

www.nic.ec



US Virgin Islands

Naturally in Rhythm

We aren't, as human beings, very good at acting in our best interest.

Malcolm Gladwell

Trending toward Stability

- ✓ Successor Operator
- ✓ Documentation of Policies and Procedures
- ✓ Governance Structure
- ✓ Succession Planning Policies
- ✓ Knowledge Transfer and Training
- ✓ Collaboration with Peers
- ✓ Auditing and Review of Plans
- ✓ Engagement with Stakeholders
- ✓ Transparency

ccTLD Registration Trends Session

Tuesday, 13 June 2023 | 14:45-16:15 UTC (10:45-12:15 local)

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Thank you!

Next Session: Triage Committee & SOPC Updates