

Identifying & Managing The Emerging City Digital Commons

for presentation at the

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THE CITY AS A COMMONS: reconceiving urban space,
common goods and city governance

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Introduction: The Road to Bologna

Fifteen years ago, prior to my enlightenment as to the significance of the commons, several fellow residents and I formed a not-for-profit to acquire and develop the .nyc Top Level Domain, or TLD. In those days we saw the .nyc TLD as technically equivalent to .com, .org, .uk, and .it, but presumed it to be a public interest resource that would serve as a digital infrastructure for New York City.¹ We likened it to a street grid for a digital era.

As the effort was the first by a city to acquire a TLD, there was scant experience to draw upon, and with no guidance from the issuing entity, ICANN, we were sailing uncharted waters. Faced with creating an organization and an information structure to reach out and record ideas and desires on how best to use a TLD to serve the needs of a community of 8,000,000, we decided to use wiki technology to help gather and organize relevant ideas and opinions. Our inspiration was Wikipedia, then in a youthful rapid growth period.²

Ten years later, post Elinor Ostrom's Nobel, I became intrigued with the concept of the commons as it might pertain to a city-TLD and did a Google search for "cities and digital commons."³ As I perused Google's response I was amazed to see our wiki listed near the top. I quickly clicked the link and learned that an intern who'd worked with us in 2005, Hailey Cooperrider, had imagined using a city TLD as a commons and reached out to commons thought leaders to explore the idea, placing her findings on our wiki.

In recent years, as the city entered the formal process to acquire the .nyc TLD and a growing array of society's activities became mediated by digital technologies, the utility and the need for digital common spaces has become increasingly clear. Those spaces are the paper's focus.

The paper has two parts. Part One has a primer on Top Level Domains and a history of .nyc's acquisition. It concludes with recommendations for improving the TLD planning processes. Part Two reviews our experiences advocating, identifying, and developing oversight mechanisms for the city's digital commons. It also describes the state of the city's commons and ways their development might be improved.

Those wishing to skip the background and get directly into the commons notions should jump to Part Two on page 8.

¹ https://en.wikipedia.org/wiki/Public_interest

² <https://commons.wikimedia.org/wiki/File:EnwikipediaArt.PNG#/media/File:Enwikipediagrowth.PNG>

³ When writing this paper attempted to recreate this search. To my regret our now broader posts on the topic of digital city commons did not show as prominently in that recreated search.

- Part One -

A TLD Primer

Before focusing on .nyc and its relation to traditional and digital commons, let's take a brief look at the technology and meaning of domain names.

The language computers understand is binary, an updated Morse Code of dashes and dots or 1's and 0's. This is near impossible for humans to work with. For example, here's the Internet Protocol or IP address of the Russian Wikipedia in binary: 00110010 00110000 00111000 00101110 00111000 00110000 00101110 00110001 00110101 00110100 00101110 00110010 00110010 00110100. While it's somewhat easier to read in numeric form, 208.80.154.224, the Internet's developers sought to further humanize it by creating a human memory-friendly domain name system or DNS.

The following graphic depicts the steps your computer would follow to locate the website hosting the Russian version of Wikipedia, ru.wikipedia.org, using the DNS.

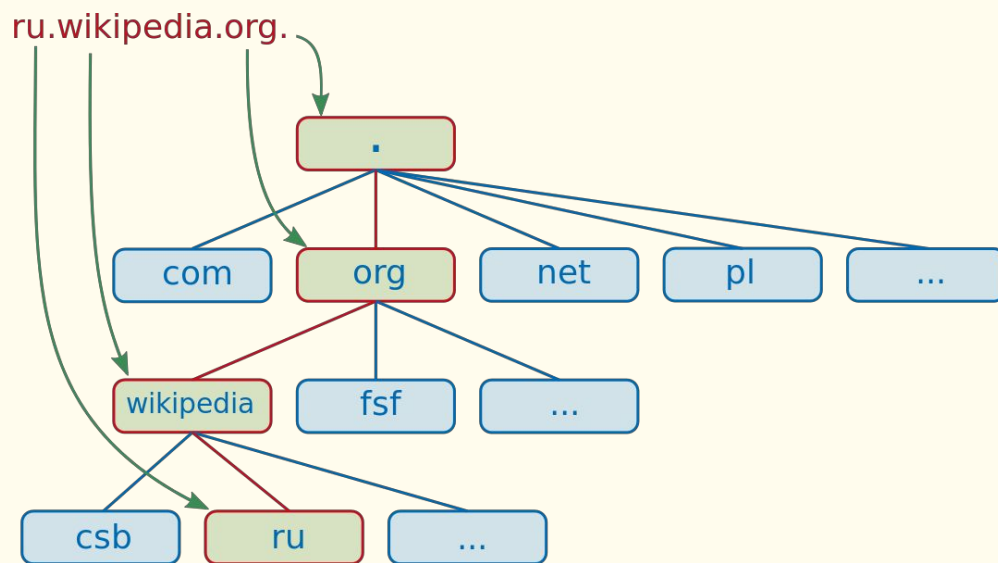


Figure 1. Four Step Domain Name Search Diagram
(Creative Commons image courtesy of [Wikipedia.](#))

Its first inquiry would be to the computer represented by the "." (commonly referred to as the "root") at the top of the graphic. There it would learn where it can find the location of the computer listing the IP address of all the domain names ending in .org. In the next step it would ask the .org computer for the IP address of the .wikipedia.org computer. Finally it would ask the wikipedia.org computer for the location of the .ru edition. Once it learns the IP address for the

Russian Wikipedia, 208.80.154.224, a final Internet process converts this to the 1s and 0s of computereze and connects you to your desired website. All in an instant.

The DNS also fostered competition by enabling “portability” which allowed a website such as ru.wikipedia.org to switch hosting companies without notifying every user of the new IP address.

A History of .nyc TLD

The origin and nature of the campaign to acquire the .nyc TLD has determined its development path and the current state of its digital commons. While every city will differ in this regard, a retelling of New York’s experiences will help us understand what’s shaping the city’s digital commons.

The idea of a public interest .nyc TLD was first advanced by a New York City community board, a local planning entity situated in the city’s borough of Queens. On April 19, 2001 the board passed an Internet Empowerment Resolution⁴ calling for .nyc’s acquisition and development as a public interest resource. The Resolution identified a specific city agency to oversee those actions but added that, if the city government was not interested, a public interest organization should undertake those actions.

With strong advocacy from its supporters on the community board, additional support for the Resolution was soon proffered by city and national office holders. However, the September 11, 2001 tragedy diverted the city’s attention and it was not until 2005 that a reinvigorated advocacy effort began to advance the TLD’s acquisition.

While a discussion about the Resolution was being reinvigorated in the city, the Internet Corporation for Assigned Names and Numbers, commonly called ICANN, the California not-for-profit established to administer and develop the DNS, began a process in 2005 that led to its adopting a New TLD Policy in 2008.⁵

In early 2009, following much civic encouragement, and a hearing by the city council, city hall expressed a change of heart and announced it would apply for the .nyc TLD.⁶ The surprise announcement was made in an annual State of the City message by the city council’s Speaker.

With no precedent for a city TLD to draw upon, and with the announcement being made in the shadow of the 2008 financial crisis, the “standard model” for a TLD’s development was initially chosen. Under the standard model domain names are sold on a first-come first-served basis, with name sale revenue supporting the venture. This had proved highly successful to the

⁴ https://en.wikipedia.org/wiki/Internet_Empowerment_Resolution

⁵ <http://newgtlds.icann.org/en/about/program>

⁶ <https://en.wikipedia.org/wiki/.nyc>

developers of the .com, .net, and .org TLDs and the prospect of additional city revenue made it highly appealing.

Proponents of the Internet Empowerment Resolution intervened, urging the city to develop the TLD using a “community model,” with domain names carefully allocated to existing organizations, instituting collaborative directories, assuring local control, and in other ways operating the TLD as digital infrastructure that would be developed with the broad public interest in mind.⁷

Responding to this diversity of opinions, in April 2009 the city issued a Request for Information (RFI) seeking ideas on how best to develop the .nyc TLD. The RFI had a limited distribution, being shared with several existing firms that had prospered using the standard model and those advocating for the community model.

[Note: In 2006, with the city having indicated that it had no intention to apply for .nyc, the advocates for the TLD’s acquisition formed a public interest corporation, Connecting.nyc Inc., in conformity with the 2001 Internet Empowerment Resolution. As a result, the invitation to comment on the RFI was sent to Connecting.nyc Inc.]

After considering the RFI responses the city issued a Request For Proposals (RFP) in late 2009. The RFP invited those interested in assisting the city with the acquisition and development of .nyc to provide two separate proposals: one detailing .nyc’s operation under a standard model, and another its operation under the community model.

But in the ensuing months and years there was no public discussion or expert review of the RFP responses: there were no public hearings and experts were retained to evaluate the proposals. The evaluations were done in-house by DoITT’s staff.⁸

From the time proposals were submitted in late 2009 (we estimated 3 or 4 firms responded to the RFP), the advocates for the community model called for a “multistakeholder” review of the opportunities the proposals offered. This would have academia, business, civic society, government, residents, and technical experts commenting on the proposals. Connecting.nyc Inc.’s plan, *From DARPA to CARPA*, detailed one such approach.⁹

In April 2012, city hall announced that it had awarded a 5 year contract to Neustar Inc., one of the 2009 RFP responders, to undertake a 3 phased development: guide the city’s acquisition of the .nyc TLD from ICANN, market the names, and operate the registry (the database that records contact information for name holders).

⁷ https://en.wikipedia.org/wiki/Public_interest

⁸ Comment made to author by DoITT contract officer in April 2012.

⁹ <http://www.coactivate.org/projects/campaign-for.nyc/from-darpa-to-carpa>

The contract was a hybrid of the standard and community models. The key community components included a strong nexus policy requiring name owners live or have a strong connection to New York City, and reserving 800 domain names for community and public use. Which names were to be used for community and public uses has not been made clear.

Throughout this development period the only input on the .nyc TLD's structure from outside the walls of city government came from the .NYC Community Advisory Board, an entity that existed for a 20 month period. Here's its brief history.

The Board was created in response to a challenge to the efficacy of the city's application for the .nyc TLD. Connecting.nyc Inc., which acquired affiliate participation rights in ICANN in 2012 as an At-Large Structure¹⁰ challenged claims about public engagement made in the city's application.¹¹ Connecting.nyc asserts that the city's concern about the outcome of its challenge led to the creation of the Board. A conflicting view was expressed by the Bloomberg administration which said it would have created the board regardless of the challenge.

The .NYC Advisory Board's original 9 members were appointed by Mayor Bloomberg in March 2013. In late 2013 4 additional members representing small business were added.

The Board met on a monthly basis between May 2013 and December 2014. Its meeting were not public, it was unstaffed, and no public records of its meetings were published.

Some recommendations of the Board were heeded. The primary public interest enhancement to the .nyc TLD was made in 2014 during the early days of the de Blasio Administration when the 385 traditional neighborhood names - commons - were reserved for use by residents of the various neighborhoods. (In October 2015, the city initiated a program to develop the neighborhood names - see below.¹²)

The .NYC Advisory Board was abolished on December 31, 2014. At its last meeting a promise was made that an advisory board of some sort would replace it. No followup on this promise has been forthcoming from city hall as of November 1, 2015.

Limitation of the City-TLD Acquisition Process

The tone of this "history" might lead some to conclude the author is highly critical of the actions of city administrators. But having been involved from the 2001 introduction of the community board's Internet Empowerment Resolution to serving on the .NYC Community Advisory Board,

¹⁰ <https://atlarge.icann.org/correspondence/structures-app.htm>

¹¹ <http://www.coactivate.org/projects/campaign-for-nyc-community-advisory-board>

¹²

<http://www1.nyc.gov/office-of-the-mayor/news/384-14/mayor-de-blasio-city-officials-call-new-yorkers-local-businesses-reserve--nyc-web>

his impression was that city policies and processes were selected with good intentions, albeit within the realm of the limited availability of information.

With little planning having taken place, and with lukewarm support from city hall (e. g., city government has so far declined to move its web presence from the .gov TLD to the .nyc TLD and sans any public participation in the ongoing planning process) there is some trepidation that the hopes for a community TLD will not be met. The origin of these concerns arose from different vantages.

- There's some thought the community advocates should have persuaded the city not to acquire a TLD until suitable operating experience was available from their use in cities elsewhere. This argument posits that the typical path by which new ideas enter New York City's public realm has them being first proven elsewhere. For example, bike-sharing systems had been in existence for decades before arriving in New York in 2013.¹³ From experiences elsewhere the system improved, the technology advanced, and awareness and demand grew as the local population observed bike-sharing operations elsewhere. Additionally the bureaucracy had an opportunity to decide where oversight might best be established within the city administration. The argument holds that among cities, New York's traditional role is to legitimize and popularize a new development. The city doesn't initiate and .nyc was a pioneering effort, and therefore wrong.
- Related to this is the belief that the meta view of the TLD was erroneous. That effective oversight was limited by a fundamental misunderstanding about the nature of the TLD. This theory holds that from its earliest days the city's TLD was perceived by city hall as a digital resource, to be handled by the city's Department of Information Technology and Telecommunications (DoITT). But its advocates, emerging from the neighborhood and community board level, envisioned it as a planning resource, likening it to a street grid for digital resources. They saw the TLD providing human recognizable signposts - the domain names - that would point residents and visitors to the city's traditional and digital resources and advocated that the Department of City Planning oversee the TLD's planning and acquisition. This is perhaps an example of why the city should not innovate.
- Finally, one of the challenges to evaluating the effectiveness of .nyc's operation is the lack of operational metrics. While Connecting.nyc Inc. proposed several, the city has not yet acknowledged any.¹⁴ Sailing uncharted waters without a compass makes it difficult to know if one is on course.

¹³ https://en.wikipedia.org/wiki/Bicycle-sharing_system

¹⁴ <http://www.coactivate.org/projects/campaign-for-nyc/city-tld-metrics-checklist>

Determining if the city's TLD is being operated in an optimal manner will only become apparent with hindsight and when .nyc's operation can be compared to other cities operating TLDs. The limitation here is that comparison cities, those following comprehensive public engagement and planning processes, have not even applied for their TLDs and ICANN's application window will only open until 2017, at the earliest.¹⁵

Proposed Changes To The city-TLD Allocation Process

Looking forward, hundreds of cities are likely to seek TLDs in the next few years. In China alone there are 160 cities with populations of 1 million or more, the size some prognosticators see as the minimum justifying a TLD.¹⁶ If there is to be an improved planning and development process for the next batch of cities seeking TLDs, changes are needed at both the global and local levels.

At the global level the issuing entity, ICANN, must provide guidance for cities seeking TLDs. Our organization is participating in ICANN's planning processes urging that an "Informed Consent" standard be established for applicant cities. We argue that ICANN, before granting rights to develop a TLD, should require that cities certify their awareness of the various features and operating options, including the commons elements.

Additionally, we advocate that a multistakeholder engagement model be required of applicant cities. This will require that academia, business, civil society, government, the technical community, and residents be engaged in evaluating the TLD's impact on the city's economic well being and quality of life. Amongst the factors the engaged should consider are the options surrounding the denomination, reservation, and development of a digital commons.

From ICANN's creation in 1998 through the deliberations that led to the New TLD Policy in 2008, cities were not engaged in the conversation. Requiring informed consent and multistakeholder review will be a complete turnaround from the 2012 TLD issuance round. It's our hope that these new requirements, and the experiences from the first group of cities acquiring their TLDs,¹⁷ will facilitate more creative and effective development plans.

¹⁵ ICANN is reviewing the 2012 round of new TLDs and will only issue new ones upon its completion.

¹⁶ <http://www.cnn.com/2012/01/20/world/asia/china-floracruz-urban-growth/>

¹⁷

https://docs.google.com/spreadsheets/d/1mcFAfe37NuV2OLhOcYjzzx8Wmj2_omk5W7WzV1rN_y8/edit?usp=sharing

- Part Two -

New York City's Digital Commons

With this background in mind we begin to consider New York City's digital commons. For purposes of analysis we divide them into two types, those that primarily provide identity and organizational capacity, and those offering services. Let's look first at the identity and organizational names.

The city has set aside 800 "reserved domain names"¹⁸ which include many that could appropriately have the term "commons" applied to them. The largest segment of the 800 reserved names are 385 that correspond to traditional neighborhood names: Astoria.nyc, Bensonhurst.nyc, ConeyIsland.nyc, GreenwichVillage.nyc, Harlem.nyc, etc.

In October 2015 the city finalized an application process and online form for filing an application to develop a neighborhood domain name.¹⁹ The form's first question sets the tone for the allocation process:

"Is your entity a registered not-for-profit, public benefit corporation or local development corporation?" followed by Yes and No check boxes. These are followed by "If you answered "No" to the previous question, you should not proceed with the application."

If one responded positively to this qualifying question, 5 more about the applicant organization and its partners follow.

- Organization's Mission Statement
- PLEASE EXPLAIN WHY YOU ARE INTERESTED IN MAINTAINING .NYC NEIGHBORHOOD SITE
- PLEASE EXPLAIN WHY YOU BELIEVE YOUR ORGANIZATION WILL BE SUCCESSFUL IN OVERSEEING THE SITE
- ORGANIZATIONS ARE ENCOURAGED TO PARTNER WITH OTHER NEIGHBORHOOD ENTITIES IN ORDER TO LAUNCH AND MAINTAIN THEIR SITES. IN FACT, NEIGHBORHOOD SITES SHOULD BE INCLUSIVE OF ALL INTERESTED PARTIES. ONE ORGANIZATION WILL FUNCTION AS THE LEAD AND ULTIMATELY

¹⁸

<https://docs.google.com/spreadsheets/d/1ZXMFc-C2PU6KIRPbZKfLkk63i2k5u7Uz2wDikqWPezg/edit?usp=sharing>

¹⁹ <http://www1.nyc.gov/site/forward/initiatives/dotnyc/domain-requests.page>

BE RESPONSIBLE FOR THE SITE'S SUCCESS. WILL YOUR ORGANIZATION BE THE LEAD OR A SECONDARY/SUPPORTING PARTNER?

- Please list any partners that you plan to work with on this initiative and describe the expected role of each:

These are followed by several questions about the organization's capacity to operate a neighborhood domain name:

- Describe the social, cultural, and economic makeup of your neighborhood and how your organization includes these elements in your governance processes:
- WHAT IS YOUR ORGANIZATION'S CURRENT ONLINE PRESENCE? FOR EXAMPLE, DO YOU HAVE A WEBSITE? DO YOU USE SOCIAL MEDIA? DESCRIBE HOW YOU CURRENTLY USE THESE TOOLS.
- PLEASE LIST STAFF WHO WOULD MAINTAIN THE .NYC WEBSITE, ALONG WITH THEIR QUALIFICATIONS. WILL THESE STAFF MEMBERS WORK ON AND MAINTAIN THE DOMAIN THROUGHOUT THE AGREED LEASE PERIOD? WILL YOU BE CONTRACTING ANY NEW STAFF TO HELP YOUR .NYC WEBSITE?
- PLEASE PROVIDE YOUR ESTIMATED BUDGET FOR BUILDING AND MAINTAINING YOUR NEW .NYC WEBSITE, INCLUDING ANY POTENTIAL SOURCES OF REVENUE.

A last set of questions dig into the applicant's content plan and the marketing resources they expect to use to reach the served neighborhood.

- BEYOND THE STANDARD TEMPLATE, WHAT INFORMATION DO YOU INTEND TO PROVIDE ON YOUR .NYC SITE? FOR EXAMPLE, WILL YOU PROVIDE PROMINENT LINKS TO EXISTING LOCALLY SPONSORED BLOGS/WEBSITES/LISTSERVS OPERATING IN THE NEIGHBORHOOD?
- WHAT INTERACTIVE FEATURES DO YOU PLAN TO INCLUDE ON YOUR .NYC SITE? HOW WILL YOUR NEIGHBORHOODS.NYC DOMAIN SERVE THE NEEDS OF ALL NEIGHBORHOOD RESIDENTS, CIVIC ORGANIZATIONS, AND BUSINESSES? *
- HOW WILL YOU PROMOTE YOUR NEIGHBORHOODS.NYC DOMAIN TO LOCAL RESIDENTS, ORGANIZATIONS, AND NEIGHBORHOOD BUSINESSES? DO YOU PLAN TO GIVE OUT OR SELL THIRD LEVEL DOMAIN (E.G., RESTAURANTS.NEIGHBORHOODS.NYC)
- HOW DO YOU PLAN TO MAKE THE SITE ACCESSIBLE TO THE LARGEST NUMBER OF PEOPLE?
- Do you have all the resources needed to undertake this project? Yes No

That last question about resources is not intended to be exclusionary, but to identify those seeking or requiring collaborators and support of various types.

Finally, after answering these questions the applicant must demonstrate a level of support from the neighborhood, as follows:

EVERY APPLICANT MUST SUBMIT AN AFFIDAVIT OF SUPPORT FROM AT LEAST TEN (10) BUSINESSES OR ORGANIZATIONS BASED WITHIN THE LOCAL COMMUNITY AND/OR AT LEAST TWENTY-FIVE (25) INDIVIDUALS LOCATED WITHIN THE LOCAL COMMUNITY, DEMONSTRATING THE APPLICANT'S COMMITMENT TO THE PUBLIC INTEREST OF THE NEIGHBORHOOD SERVED BY THE DOMAIN NAME. PLEASE DOWNLOAD THIS AFFIDAVIT OF SUPPORT, AND THEN UPLOAD THE REQUIRED NUMBER OF COMPLETED AFFIDAVITS IN THE FIELD BELOW.

The all important licensing agreement for those meeting these qualifications was not available as this paper was prepared.

The other 415 reserved names are used for Business Improvement Districts, some existing public institutions, city services, with a small number that are potentially available as commons resources.²⁰

- 155 of the reserved names are set aside for Business Improvement Districts or BIDS. These are small geographically based business collaborations that set street design standards, sponsor events, and promote sales. There is no requirement for public participation in determining the operation of these names. However, BIDs have several elected officials serving as de facto representatives on their governing boards, including the local council member.
- 65 names have been reserved for important public institutions, for example, the AmericanMuseumofNaturalHistory.nyc and MetropolitanMuseumofArt.nyc.
- An additional 50 names are reserved to advance city service delivery, e.g., 911.nyc for emergency police contact, ambulance.nyc, buildings.nyc, rats.nyc, and streets.nyc.
- Finally about 40 of the reserved names could serve as commons. For example: attractions.nyc, culture.nyc, data.nyc, dining.nyc, events.nyc, film.nyc, health.nyc, nonprofits.nyc, reservations.nyc, restaurants.nyc, search.nyc, and technology.nyc. We've advocated that these reserved names be developed using wiki technology but no word has been forthcoming on the city's plans for using names.

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<https://docs.google.com/spreadsheets/d/1ZXMFfe-C2PU6KIRPbZKfLkk63i2k5u7Uz2wDikqWPezg/edit?usp=sharing>

Beyond the Reserved Names, 3,000 domain names have been set aside for high-bid auctions.²¹ Most of these have little bearing on digital organization of the city with names such as 1.nyc and sportsbetting.nyc.

But there are names on the auction list such as hardware.nyc, hotels.nyc, and stores.nyc that could be developed as commons. Our hope is that some generic names will be considered for use as commons, perhaps enabling Wikipedia-like development. While several of these names have potential to serve as commons, they are set to be auctioned off to meet revenue commitments the city government made to its contractor.

Several dozen auction names have potential to serve as commons. We're advocating that these carry a Public Interest Requirement. For example, in the instance of Hotels.nyc we've recommended that the auction winner be required to focus the content on New York hotels, and that all operating hotels be included in a directory-type usage.

The Centrality of Digital Commons To A Properly Functioning City

Beyond the assistance commons domain names can offer to the organization and operation of a complex city, it is important that we use a city-TLD to advance governance, via the development of a digital civic commons. Early on we thought names that could enable a digital civic commons names as opportunities, but as digitization becomes ever more encompassing, its impact on traditional democratic practices has moved them to the forefront as necessities.



Churchill nailed it in 1947 when he said "democracy is the worst form of government, except for all the others which have been tried from time to time." For several decades thereafter traditional Western Democracy was the tarnished global standard.

The Internet's ascent convinced many that something better was possible. Several years ago our organization saw the potential for a better democracy emerging from a civic commons that the .nyc TLD would make possible.

The civic commons we imagined would be built from digital resources with names such as candidates.nyc, issues.nyc, and voting.nyc. By improving local communication, discussions, and decision making processes, we saw them providing the basis for a post-Churchillian democracy. With .nyc's activation in 2014 that new civic commons became possible.

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<https://docs.google.com/spreadsheets/d/1qeEPuuPQ3MxzDtUjNpWZy5milRVISvt-4QqBmHRgENQ/edit?usp=sharing>

Before exploring how an improved democracy might emerge with the help of the new commons resources, let me review a few digital encroachments to our traditional governance and human rights that the Net recently enabled.

Digital Deceptions

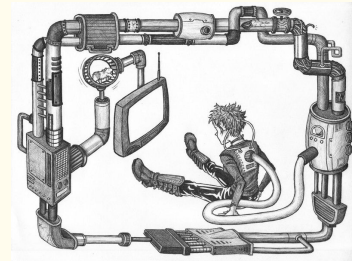
Three recent reports spotlighted the need for a more vibrant civic commons. The first, an article in Science reported on the massive influence Internet search is having on voting and elections. The second, a New York Times article about computer algorithms, the invisible code that decides what one sees when entering search terms, and how they result in the de facto placement of gender and racially biased ads. And finally, a story in Medium, about paywalls that inhibit residents from seeing political debates.

The Science article²² reported on work by Robert Epstein documents what most of us know intuitively: The more prominent a candidate's showing on a page of Internet search results, the more likely voters are to choose them. Summarized the impact of his finding Epstein said:

“What we’re talking about here is a means of mind control on a massive scale that there is no precedent for in human history.”

That strong claim necessitates a close look at his research.

His first experiment tested the impact of Internet search results on the voting behavior of 120 volunteers. The researchers built a fake search engine they called Kadoodle that responded to search inquiries by returning a list of 30 websites, 15 for each of the candidates. What the volunteers didn’t know was that the search engine had been rigged to display biased results.



For example, in one scenario a subject would see a list of 15 websites with information about one candidate followed by 15 sites about the opponent. Predictably, the subjects spent far more time reading Web pages near the top of the list. Before and after questionnaires detailed the impact of the biased presentation: in one instance the rigged search results increased the number of undecided voters choosing the favored candidate by 48%.

In a second experiment the scientists recruited 2,100 participants. The large sample allowed them to pinpoint the demographics of those most vulnerable to search engine manipulation: the divorced, Republicans, and subjects who reported low familiarity with the candidates. From these results, Epstein concluded:

²² <http://news.sciencemag.org/brain-behavior/2015/08/internet-search-engines-may-be-influencing-elections>

“In a two-person race, a candidate can only count on getting half of the uncommitted votes, which is worthless. With the help of biased search rankings, a candidate might be able to get 90% of the uncommitted votes [in select demographics].”

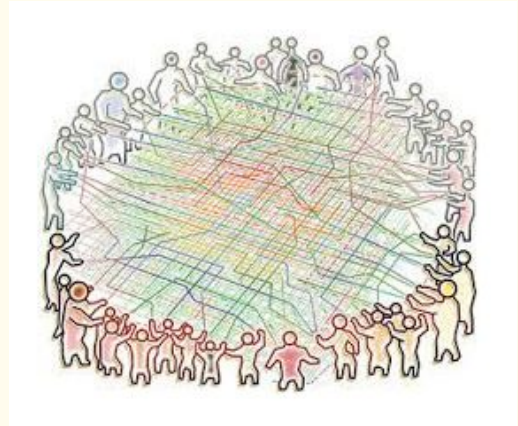
The New York Times article, *When Algorithms Discriminate*,²³ talked about ways biased search algorithms strip away hard won human rights. In one search for images of CEOs the results exaggerated men's occupancy in top positions. In another a job search site fed more good jobs to men than to women.

Finally, highlighting a trend toward monetizing access to civic discussion, a story in Medium²⁴ by Susan Crawford focused on paywalls that inhibit residents from observing political debates. The article cited a recent Republican presidential debate that voters could only view on a paid cable channel.

The Civic Commons To The Rescue

To grasp the .nyc TLD's potential one must envision the new "space" it creates. While not as tangible as the land upon which housing and office space are situated, in a digital era it offers vast potential.

In New York, most developments of the .nyc TLD are likely to be of a personal, commercial, or cultural nature. But as the above digital distortions demonstrate, we also need to identify and develop commons space within the .nyc TLD, if only to protect ourselves.



Here are a few examples of domain names that should be part of a civic commons:

- Search.nyc - If we're to have fair elections, we must assure that candidate information is evenhandedly presented to voters. One key presenter of this information should be an official search engine. While Google and its cohorts promise that all information is fairly presented, they do so in a secret way. This is unsuitable for a democracy. If we're to trust the election process, we need to present candidate information via transparent algorithms that provide a level playing field for all candidates. And note, a robust commons offers advantage to all sectors of society: A trusted search.nyc will also provide global visibility to our city's commercial and cultural products.

²³ http://www.nytimes.com/2015/07/10/upshot/when-algorithms-discriminate.html?abt=0002&abg=0&_r=0

²⁴ <https://medium.com/backchannel/cable-only-presidential-debates-are-the-new-poll-tax-b90a36a03345>

- Voter.nyc - The voter.nyc name-set (voter.nyc, voting.nyc, voters.nyc, candidates.nyc) is another part of the civic commons that should be crafted to facilitate elections and election time decisions.
- Issues.nyc - Long and short term discussions of citywide import should be addressed in a thoughtfully organized issues.nyc space. Ongoing outreach efforts would direct residents to present their ideas and preferences here, so when an issue like homelessness hits the eye or soul, New Yorkers will know where to head. Solutions identified here could stimulate civic actions and even feed into the voter.nyc spaces.
- Neighborhoods.nyc - The nearly 400 neighborhood names - Astoria.nyc, GreenwichVillage.nyc, Harlem.nyc, etc. - can empower local residents to address the concerns of everyday life. Through them, New Yorkers can have access to effective local communications for the first time ever. Perhaps the digital neighborhoods thus created could organize self-help projects and guide city budget decisions.
- Meta Names - Intuitive names that facilitate finding the commons sites need to be identified, developed, and promoted. Here are a few examples of these meta names: CivicCommons.nyc, NewYorkCommons.nyc, and CommonsIndex.nyc. But many others are needed, drawn from our existing expectations.

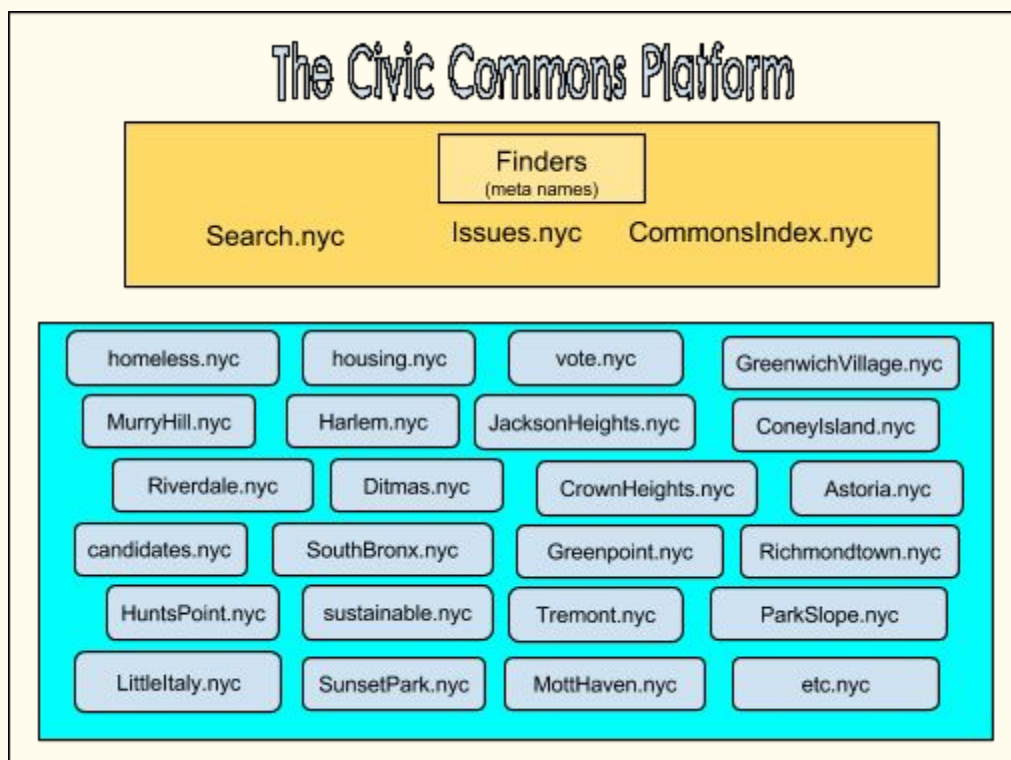


Figure 2. Diagram of the Civic Commons Platform

In its earliest days the de Blasio Administration created the opportunity for a civic commons when it set aside 800 domain names on a reserved list²⁵ and decided that .nyc names were for New Yorkers only. One result is that today the adventurous civic leader can go to neighborhoods.nyc and begin the process of acquiring a neighborhood domain name.

That early vision dimmed last December 31 when City Hall disbanded the .NYC Community Advisory Board. Formed during the Bloomberg years, the Board was to gather public input on setting the course for this key digital infrastructure. But with no replacement in sight, no provision for ongoing civic input, virtually no transparency or accountability, .nyc's advance is seemingly rudderless, and we've begun to fear a modern Tragedy of the Commons.²⁶

City Hall and the Civic Commons

If the civic commons is to exist, City Hall must reopen public access to .nyc's planning and development processes. It should adopt a multistakeholder governance model and engage academia, business, civic society, government, residents, and the technical community in an open and transparent planning process. This should include the following:

- **Autonomy** - City Hall must not micromanage the commons. While the operating contract with ICANN (the global entity that awarded .nyc to city hall) puts ultimate responsibility for operating .nyc in city hall, the stakeholder communities for the various commons spaces (domain names) must have rule making and management authority - within our system of laws. Few will trust the election results presented by search.nyc if it's operated by city hall.
- **Engagement** - All New Yorkers should be invited into the planning processes. A supportive organizational structure and staff should be assigned to enable meaningful participation.
- **Promotion** - Getting the word out in New York City can be an enormously expensive and difficult proposition. Success here will only arrive if City Hall promotes the commons with the same vigor and persistence used for 311, 911, and nyc.gov. As a symbol of support it should commit, with great hoopla, to moving the city government's website from nyc.gov to gov.nyc.
- **Resources** - The sale of domain name is generating a surplus with 40% of the wholesale price of domain names coming to the city. These funds should be used to develop the civic commons with funds channeled to a Commons Development Authority. Should additional funds be required, the Authority should be empowered to facilitate their acquisition.

²⁵

<https://docs.google.com/spreadsheets/d/1ZXMFc-C2PU6KIRPbZKfLkk63i2k5u7Uz2wDikqWPezg/edit?usp=sharing>

²⁶ https://en.wikipedia.org/wiki/Tragedy_of_the_commons

Finally - .london, .paris, .tokyo and 30 other cities have been similarly empowered to create their own civic commons.²⁷ But for lack of precedent and awareness of the opportunity before them, a civic perspective is largely missing from each. New York should take a lead in setting best practices for the development of city-TLDs and the civic commons.

Mixing Traditional and Digital Spaces

Finding the correct mix of domain names to serve New York is a challenging task that may take several years to achieve. To move the city in the right direction Mayor de Blasio should, in addition to the above, collaborate with other global cities to develop communication channels that share best practices about identifying, operating, and promoting the civic commons.

For a city, domain names are part identity and part place. Each name for a traditional city location brings with it an identity. For example, many traditional place names were included in the list of 800 reserved domain names - the 385 neighborhood names and names for physical spaces such as CentralPark.nyc.

What if CentralPark.nyc is assigned to the Central Park Conservancy, the non-profit that has assumed responsibility for the maintenance of the park? With both the digital name and effective control of the traditional property in the hands of the same organization, will they provide in the digital park the commons functions that Central Park had provided over the last 150 years? The same can be asked about other traditional activist spaces as UnionSquare.nyc and WashingtonSquare.nyc.

Clearly governance rules are required for the traditional and for their civic commons names. We're unaware of any activity in that regard by the current leaders in city hall.

How do you design a city-TLD that properly mixes the various categories of names, the commons, personal, institution, and business names? How do you mix the real and the digital? Some hints were provided from a Q&A in Policy Innovations²⁸ describing how a leading architect, David Nelson, approaches the formation of "place" in the traditional city.

How do you build a sense of place from scratch?

DAVID NELSON: *Most of the places that we, in the West, have come to love—it might be New York, London, Paris—those places have evolved over many hundreds of years. That little shop on the corner might have been a bar or florist 20, 30, 100 years ago. Bits*

²⁷

https://docs.google.com/spreadsheets/d/1mcFAfe37NuV2OLhOcYjzzx8Wmj2_omk5W7WzV1rN_y8/edit?usp=sharing

²⁸ <http://www.policyinnovations.org/ideas/innovations/data/00299>

of the building got modified through time, literally, over history. The typical configuration of a project that might come to us will be within 3 million to 6 million square feet. That is about as big as it gets. If we're going to build 6 million square feet day one, you've got to build a sense of place from day one, which is an extremely difficult task. Not impossible, otherwise we wouldn't be doing what we're trying to do, but it requires you to almost accelerate history and think about everything in advance before you can produce a plan.

So how do you do it?

DAVID NELSON: *It tends to boil down to having a real focus on what we call the "public realm." The interesting thing about architecture and urban design is how you integrate two things—the public and the private—together. How people—the thousands of people at ground level, city level, moving through from one part of the city to the other—interface with the private worlds of those buildings that hover above them.*

If we're to take a lesson from Mr. Nelson, developing city-TLD is a long and ongoing process. It's hoped that the review, recommendations, and update provided here provides a start.

Our thanks for the use of their Creative Commons images to [KraljAleksandar](#) for Churchill, [Jagarnot](#) for Syndicated Mind Control, [Victor Ponce](#) for Tragedy, and [Christine Prefontaine](#) for What...

About the author

Thomas Lowenhaupt is the founding director of [Connecting.nyc Inc.](#), a NYS nonprofit that seeks to enhance New York's traditional civic culture by using digital technologies. The organization was recently granted special consultative status at the United Nations. He hopes to use the organization's NGO position to spread the word on the utility of city-TLDs and the civic commons they enable.

Mr. Lowenhaupt is an urban planner and a former community board member. He has an advanced degree from New York University's Interactive Telecommunication Program (the ITP) and lives in Jackson Hts., a neighborhood in one of New York City's green boroughs. He can be reached at tom@connecting.nyc.