Civic Technologies: Research, Practice, and Open Challenges

According to the goal of the workshop, we are glad to present hereunder an approach about **how the local context and infrastructure affect the design, implementation and deployment of civic technology**, based on two experiences*; A tu Servicio Bogotá[1], and Marea Digital[2].*

Position paper presented in CSCW event

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- **Main assumptions**

The hypothesis in which both civic tech experiences are based are the following:

"Civic tech is a mechanism for civic engagement which has the main objective of promoting citizen participation and advocacy in public decisions. The opportunity offered by civic technologies is the generation of data from the community for local development (community-driven data and development), seeking to deepen citizen engagement in the management of local problems".

Civic technologies are meant to be scalable and replicable in different contexts, inspiring a cost-effective approach to costly technological developments. Nonetheless, the scale and replication of civic tech good practices have to consider an effective territorialization approach to prototyping and development, taking into account the following factors: problem identification, solution mechanism, local capacities, local barriers, alliance for implementation.
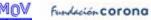
- **Description of the Civic Tech initiatives**

A tu Servicio Bogotá is an civic and public innovation platform with three main purposes for the Bogotá health sector: 1) development of tools that promote informed citizen participation through community-driven-data; 2) technology that improves the interaction between citizens

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[1] *A Tu Servicio Bogotá is developed with the following partners: Así Vamos en Salud, Secretaría Distrital de Salud de Bogotá, CAF, AVINA.*
[2] *Marea Digital is part of Activa Buenaventura, an implementation of the citizen engagement model Participa+ and a development alliance supported by Fundación Corona, Fundación Carvajal, USAID, Propacífico, Gases de Occidente, Movilizatorio, el Instituto Republicano Internacional y Extituto.*

and the district government in relation with the quality of health services; 3) innovations that make the public policy in the health sector more efficient in the provision of different services.
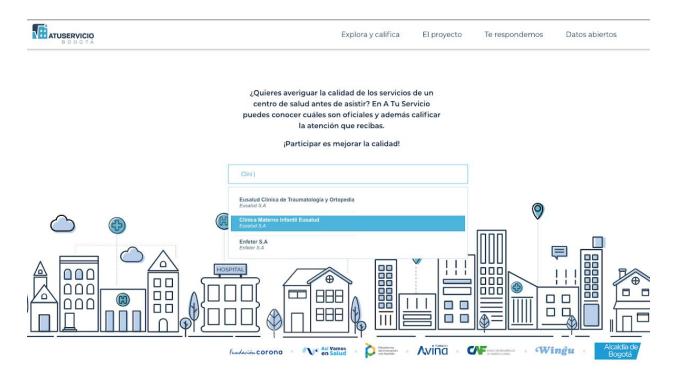
Marea Digital is a civic tech platform which allows citizens to identify and report local issues that affect their communities and their quality of life, but also, to find and report local initiatives and actions to tend towards social welfare in the city of Buenaventura, Colombia.

Additionally, the platforms allow District Governments in Bogotá and Buenaventura, as well as other key stakeholders to recognize relevant information for design processes and decision making based on evidence.

- **Local territorialisation experience**

Fundación Corona and Movilizatorio, building on the conceptual framework of the Citizen Engagement Model Participa+, have developed two civic and public innovation platforms that harness the realities of challenging territorialization experiences in Colombia.

A Tu Servicio Bogotá (ATS)

ATS is based on the following change hypothesis: if a lasting public-private partnership is harnessed under the framework of the project, and a civic innovation appropriations strategy is implemented through the main actors of the ecosystem, including the Health Secretariat of Bogotá, citizens will engage incrementally with the quality of the health services through the platform, overcoming institutional and trust barriers that diminish the effectiveness of interaction

between citizens and the government in important issues that affect their quality of life like the health services.

The replication of A tu Servicio (atuservicio.uy) in Bogotá implements the best practices of the Uruguayan platform, taking advantage of the public data available in Bogotá and opens it through georeferenced visualizations. The 1.0 version of the platform is a product built upon the particularities of the Bogota and Colombian health sector, as well as the needs of the public, private and civil society stakeholders. The result was a platform built from scratch, but inspired by the ideas and good practices of the original uruguayan platform.

The main challenge: how to implement a citizen driven data platform that includes thousands of health service providers (More than 16,000) with information that citizens can understand, and that's effective for public decision-making in the health sector. The prototyping process involved more than 15 multi stakeholder collaborative spaces to identify the main challenges relevant to the city´s context, the capacities of the local health providers, as well as the local authorities, to deliver and respond to citizen´s reports.

Marea Digital

In order to recognize the context and the infrastructure in which Marea Digital civic platform will be implemented, it was developed based on a diagnostic study on three fundamental components:

1) Citizen participation: analysis with the general aspects of the context which can facilitate or obstruct citizen participation in Buenaventura ; 2) Technology: Access and use of tech in

Buenaventura; 3) Technologies for citizen participation: Outcomes and learnings from experiences of citizen participation through at the local and national level.

Additionally, a diagnosis process based on challenges and opportunities related to communication and diffusion, training and effectiveness were carried out. This analysis had a crucial role in the design of the strategy for the civic tech platform.

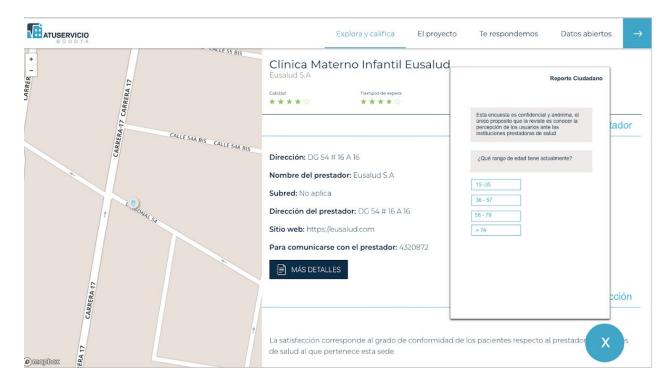| Items	Challenges	Strategy
Communication and diffusion	- Clarity in communication - Wide diffusion - Incorporate people's own communication channels	Work with leaders of the territory.
Training	- Low use of technologies - Low levels of digital literacy - Commitment to the entire training process - Availability to replicate knowledge - Low quality of digital services provided by the Mayor's Office - Difficult access to digital service spaces - Simple and intuitive navigability	- Achieve simple navigability - Create an innovative tool - Readiness of entities to cooperate - Low quantity of this type of tools in the territory
Effectiveness	- To compromise public institutions - Involve private actors - Facilitate spaces for balanced dialogue that reach points of consensus on which build and manage effective solutions	- Strengthen networks of existing organizations and leaders - Strengthen bi-directional communication between public and private actors - Interest of the institutions in the alliance and the advocacy exercise.

- **Outcomes and learnings**

The development of both platforms (ATS and Marea Digital) involved a complex process of territorialization of civic tech good practices. ATS was originally based on the Uruguayan platform, and Marea Digital on the Agentinian platform Caminos de la Villa. In both cases, the main outcome of the territorialization process were platforms made and prototyped from scratch, inspired by civic tech trends but taking special consideration on the priorities and particularities of local contexts.

For ATS, the territorialization process resulted in the following strategies that were particular needs identified for the Bogotá Health sector:

- Multi Stakeholder alliance to improve the quality of the city's Health Services (Public and private decision-makers, insurers, civil society organizations, health observatories).
- Engagement with health providers and insurers guarantees insticional responsiveness in specific areas that are tangible and close to citizens.
- Collection of detailed and specific information regarding identified health service categories are the key for institutional responsiveness and citizen´s trust in new participation mechanisms.
- The need to integrate - up to a certain level - a citizen driven data civic innovation for the public sector´s institutional decision-making mechanism.
- Local legislation is needed for continued-long term institutional support and responsiveness - sustainability of the territorization effort regardless of political leaderships.

- Engaging citizens through technological innovations need to combine digital and on-sight appropriation strategies. ATS has engaged more than 40,000 health users.

For Marea Digital, the territorialization process resulted in a civic tech - community-driven-data platform that adapted Camino de la Villa´s best practices in urban mapping for the particular needs of Buenaventura, with the following characteristics:

- Community-driven-data agendas prioritized (Humanitarian assistance, education, health, gender, infrastructure) based on two main variables: the possible medium term outcome of a rude accountability mechanism (tangible institutional responsiveness for specific community needs) in Buenaventura; and relevant policy areas for the territory´s sustainable development, according to the city's public policy cycle (New local development plan 2020 - 2024).
- Institutional engagement in each of the agendas to guarantee the mechanism´s possible results.
- Prototyping process with community leaders balancing their needs with the institutional capacities and planning /public policy priorities of the administration (Bottom-up and Top-down approach).