**Introduction**

Our take on the social machine engages two discourses in political and cultural theory currently gaining resonance and momentum: the one on the **decentralization of government**, and the other on **collaborative economies**. While they can be deceivingly easy to speculate on and maneuver as concepts of cultural transition, they nevertheless imply shifts in ingrained mindsets – institutional as well as civic – and political, economic, and social assemblages of considerable inertia.

We approach the social machine as an explorative tool, capable of probing and preparing the conditions for this shift to take place – on the condition that it, in fact, addresses the civic concerns and desires at the nexus and scale(s) where they can be most readily operationalized. In our esteem, a place to begin as good as any is the **urban realm** of physical, social, and economic co-habitation at the local to metropolitan scale.

We have envisaged our social machine as ideally capable of creating conditions for the emergence of communities around causes and issues they deem relevant – and for operationalizing those issues on their own terms and initiative. Hence the title ‘Civic Loop’, suggesting a feedback urbanism with equally active horizontal and vertical, systemic activity; an urbanism driven by a strengthened civic body capable of autonomous collaborative action, liberated from the demarcation of the hyperlocal: entitled by local settlement, but informed and empowered by virtue of functioning as a translocal knowledge-and-action network. In short: a **platform for civic co-production at the city scale**.

Our proposition is therefore not to be regarded as a platform that requires “only” technical development before it can be put into use, but is left intentionally half-developed in the spirit of collaborative work and citizen-sourced issue definition, which is our very premise. It is a skeleton of a communication and production framework to be elaborated, expanded, and concretized through a participatory research process with a few select user groups, before it in the next phase would be subject to iterative beta development.

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**Theory of Change**

If we can incentivize citizens representing different social backgrounds and expertise to work together on operationalizing specific local needs, if we can provide a platform that over time, by accumulation and interlinking of these needs, provides not only a comprehensive civic forum for urban politics but also builds and sustains lasting communities of practice, we can assist the shift towards a more tightly connected, communally driven, just, and self-reliant city.

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1. We began by asking questions of the city officials tasked specifically with inventing new and experimental frameworks for engaging citizens in the questions of urban development.
Argument 1:

“There can be no general purpose platform. The best engagement channels are highly contextual to the issue.”

From an interview with New Urban Mechanics, Mayor’s Office, Boston City Hall 03.31.15

Our counterargument:

There is an overabundance of single-purpose platforms and initiatives targeting singular urban issues. This diffuses civic engagement, isolates local phenomena from the larger context, and prevents the formation of a larger civic body.
Argument 2:

There is a pressure to start from a particular palette of issues that originate from the City Hall.

We don’t have the luxury to engage in a real process with the communities.

From an interview with New Urban Mechanics, Mayor’s Office, Boston City Hall 03.31.15

Our proposal:

The process of defining issues to act on must originate among the citizens.

The process of addressing and resolving these issues must be sustained and controlled through the engagement of a diverse and authoritative body of citizens (though it need not be borne by this body).
Argument 3:

One of the greatest challenges for city officials is reaching the people they most need to serve.

From an interview with New Urban Mechanics, Mayor’s Office, Boston City Hall 03.31.15

Our premise:

Critical knowledge about local realities – about the inside of those realities, and how they competently could be addressed – is scattered across social networks that rarely overlap.
The problem:

How do you structure devolution?

How do you structure community control?

From an interview with New Urban Mechanics, Mayor’s Office, Boston City Hall 03.31.15

Our proposal:

A citizen-to-citizen platform which pools human resources around emerging local issues.

A framework for citizens from across different locations and social and disciplinary backgrounds, to organize autonomous collaborative action on multiple scales.
2. We analyzed a broad range of platforms related to our field of inquiry: from websites covering new trends in tactical and collaborative urbanism, to various apps and platforms for civic engagement.

We observed dominant trends, analyzed them for relevance to our purpose and arrived at the following criteria for our social machine:

- citizen-sourced
- practical
- collaborative
- systemic

Avoid:

- “ask an expert” users forum
- monodirectional reporting from citizens to municipality, on isolated issues that ‘the city’ is expected to resolve
- directionless sourcing of creative ideas from citizens, with no mechanism to share, develop, and set priorities locally, and no operational pathways
- difficult-to-read data visualizations and maps, scarcely annotated
- antagonistic rhetoric of bottom-up urbanism

Instead:

- “looking for local expertise” reverse assistance: matching citizens who have extensive inside knowledge of their local realities with professionals who wish to contribute their knowledge, following the principle of collaborative research and learning
- civic loops: citizen working groups autonomously identify issues, and their root causes, and determine how much can be achieved through civic co-production and how much and what type of government participation is desirable
- identifying and targeting issues with the combined force of local engagement and independent specialized expertise, and providing a deliberation framework where priorities are set communally and plans for execution developed
- user-friendly interface to collect, locate, and disseminate information at the front end + more detailed information and data sets, for processing by civic loops at the back end
- strategic alliances between citizen groups and partnering public and private institutions
PROPOSED PLATFORM OVERVIEW

citizens flagging local issues

citizens donating expert assistance

funding opportunities:
barter system; public bidding system
philanthropy; corporate social resp.
crowdfunding

Twitter
Nextdoor
curated www content

civil society
community organizations
academia

human resources
knowledge
infrastructure

public data

aggregates
connects
spurs action

analytical tool

influencers / issues

conversation, by category

relevant models

feedback
recognition of involvement
priority-setting

“civic loops”
collaborative action & actionable proposals

local government

PROPOSED PLATFORM OVERVIEW
The platform organizes 4 types of content, corresponding to 4 stages of civic co-production:

**civic conversation/issue identification**
Social media content is scanned for explicit or implicit references to urban issues, re-directed to the site, and categorized according to topic, for example:

- land use/zoning/regulation
- housing and services
- transportation and mobility
- education
- localized production: food, energy, etc.
- circular economies: reuse, repurposing, recycling
- environmental welfare
- etc.

Specific hashtags may be created, to draw users to the platform, and to build, expand, and differentiate a critical mass of engaged citizens. Such hashtags may:

- generate more focused and localized identification of issues
- signal participation and progress in specific working groups
- bring new voices from the outside to the conversation

**Best practice/organizational models**
Curated case studies from the fields of urban design, social design etc, exemplifying collaborative economies, bottom-up urban innovation, networks of production on urban-to-regional scale, collective action networks, etc, are featured, accompanied by an easy-to-read process analysis; categorized according to topic. These are www resources that are curated and represented on the platform so that they easily are seen in relation to the categories of the evolving civic conversation (see above).

**Human resource pool, operational tools, and operational stages**

- a diagrammatic overview of expertise that 1) must and 2) can be involved, and a list of experts available for consultation
- templates of processes that may be set in motion
- protocols and procedures that could/should be followed

**Financing options**

- barter system: exchange of products and services among communities
- bidding system: bidding for resources from public expenditure (municipality, state, or federal)
- sponsorships: corporations offering targeted opportunities under corporate social responsibility
- grants: philanthropy
- crowdfunding
- other.

The content assembled serves to support the platform’s main function:

**civicloops** initiate specific processes of targeted civic co-production. They can operate on multiple levels, from the hyperlocal to the metropolitan. They can output knowledge, policy recommendations, community-based local action, economic enterprises, and more. They are assigned a prominent, but semi-transparent place on the platform: a front-end information available to visitors and users, and a back-end part accessible to collaborators.
Related platforms, by degree of pro-activeness and collaboration
integrated with existing social devices

community focus

ThisforThat.org
dcentproject.eu

CIVIC LOOP

[a plethora of websites reporting on urban innovation, social design, sharing economies, etc]

related platforms, by type of focus and level of integration
USER PERSONAS & PLATFORM MOCKUPS

1. young professional, or grad student new to the city wishing to contribute to the community

2. teacher working in an underserved community wishing to expand the opportunities for youth or address a local public space issue
3. We hypothesized three generalized users likely to take an interest in our social machine, and developed a draft scenario for how they might find each other and start a conversation around a local issue, with potential for operationalizing it into a working group - a civicloop.
CITIZEN 2 FLAGS A PROPOSAL/ A LOCAL ISSUE
Self-governance: social transformation through inner transformation
Preeta Bansal

Mutual visibility; The making of societal lifeboats
Daniel Dennett & Deb Roy

Safe friends & stretch-friends
Tim Berners-Lee

Peer influence through face-to-face interaction;
Structure of networks of social interaction
Sandy Pentland
“Looking for Local Expertise”:
Civic Conversation as Community Formation – imagined modes of implementation

1. An analytical tool – a “probehead” – sifts through Twitter + possibly conversations on other social media that we can access

2. It identifies postings that contain references to one or more of the pre-determined topics.

3. It groups these tweets/postings according to their frequency in relation to specific
   - location
   - user
   - user’s network

4. The most on-target posting users are identified as ‘wizards’ (Tim Berners-Lee), or local experts, and invited to become a part of the conversation on the civicloop platform, and to invite other users

   Citizen postings/reports on specific issues, users who are interested in these specific issues, or users who search for assistance related to these issues, are thus grouped in the same sub-conversation

   Platform visitors can sift through topics according to theme or geography/location. There may potentially be an interactive function for registered users to re-categorize conversations according to relative network proximity.

   *Problem: data scarcity, lack of geotagged and postings that are explicitly topic-relevant

   How to potentially address this:
   - on the basis of open datasets from the city/state determine three specific neighborhoods/target zones, and analyze the content of the tweets from these zones in relation to the indicators provided by the datasets
   - follow local ‘influencers’, regardless of whether they explicitly tweet about these issues or not
   - follow influential users based on topic, not location

5. the platform groups topics and enables participation on three scales:
   - neighborhood
   - city
   - metropolitan region

   Question: How do we incentivize citizens to take on the responsibility to identify, promote, and address their community’s, and their city’s concerns?

   How can the platform foment and reward other-minded engagement?

   Propositional answer:

   Focus the platform on a specific user group/age, perhaps as a launch mechanism.

   Ex. high-school students from specific urban areas. Use platform as a support tool for youth to conduct urban research and articulate themes and issues characteristic for their neighborhoods, which are not widely discussed or officially addressed. Framework: specific, existing youth programs, or yet-to-be-elaborated curriculum in civic education.
6. further possible categories for elaboration:

- Legal issues related to the built environment (housing, zoning, land use, land tenure). Pooling legal and urbanist professionals, on a pro bono basis, to help citizens articulate protests or alternative proposals for neighborhood development
- Micro-planning (a tool for integrating micro-realities of local/neighborhood life into the perspectives of macro-planning)
- Urban agriculture (uniting various scattered initiatives under a common umbrella may have various advantages)
- Skillswapping/Skillsharing (collaborative production)
- Waste management/Recycling (local reuse/intelligent recycling sheds)
- Alternative energy
- Childcare
- Senior Activities/care

7. The categories above may be unified under the rubric of **self-sufficient city**:

As an interactive platform, civic_systems ideally tracks the conditions for urban self-sufficiency through the mapping of assets, capacities, and services that can be shared or developed, on the principle of collaborative economy (collaborative learning/collaborative production/collaborative consumption/collaborative financing).

Some of the citizen working groups platform may be developed so as to incentivize civic agency to formalize specific claims in relation to the real estate sector and/or exert pressure on the municipal government

The platform may also act as a prototype for the organization of the “lifeboat” hyperlocal community support infrastructure, as proposed by Daniel Dennett, and be primarily adapted to use at the neighborhood scale.

All of the above can be aligned with the existing social infrastructure of civil society, as well as potentially integrated with some of the existing and relevant web platforms and services.

8. Alternatively, civic_systems could be developed into
- a tool for pooling expertise resources and generating critical mass around specific issues of urban justice
- a city-wide platform that enables coordination and collaboration between the professionals from the sectors of urban planning, legal, design, engineering, and financial expertise, and citizens – for collective, citizen-initiated urban transformation
- a site where specific, emergent, recently observed developments on the local to urban scale are launched and reflected on, in order to keep developing an inclusive language around the topics of urbanization, and enable critical mass of informed citizens to form
- a platform where denizens of a city from various backgrounds can through engagement build trust among each other.