

# The role of communities (open source, open data, open gov)

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## **Abstract:**

The opening of public data, the release of the source codes developed by public administrations, and the “co-construction” of public policies imply that public authorities should adopt a new stance. Once the decision is made for “open” arrangements of this sort, which are intended to raise the confidence of citizens in public affairs, bringing communities of actors (civil servants, entrepreneurs, researchers, NGOs) to be involved will, for sure, have an impact on public policy-making. This “creative multitude” within the state is a vector of technological and organizational innovation that will focus attention on new possibilities for public actions and interventions. This “community-based” approach is illustrated by discussing several high tech projects that are “public and open”; it sheds light on future prospects related to digital technology.

*“Public Money? Public Code!”*<sup>1</sup> In September 2017, a group of NGOs, led by Free Software Foundation Europe, launched a multilingual campaign calling on European representatives and public decision-makers to adopt legal texts *“requiring that publicly financed software developed for the public sector must be made publicly available under a Free and Open Source Software licence”*.<sup>2</sup> Since then, nearly 30,000 people and more than 200 organizations (public, private, nonprofit) have signed this call. The underlying philosophy has had a strong echo in several movements, whether those steered by NGOs or public authorities, often with the same principal motivation: the transparency (technical or untechnical) of public actions is a warranty of democratic confidence and fundamental rights.

When the first steps were made toward “open data” in France, Article §15 of the Declaration of the Rights of Man and of the Citizen of 1789 — *“Society has the right to hold accountable every public agent of the administration”*<sup>3</sup> — served as the grounds, to both associations and public administrations, for updating the law. The Act for a Digital Republic was passed in 2016 and, in 1978, an act on the right to information, which broadened provisions about the access to administrative documents.<sup>4</sup> Since 2014, the participation of France in the Open Government Partnership (OGP) has stimulated actions for bringing the administration closer to third-party organizations (NGOs, research, etc.). This multilateral “open gov” initiative launched in 2011 by eight countries advocates open government, the values of public transparency and openness, and new forms of dialog and cooperation with civil society. The OGP sees digital technology as having a role in supporting these values.

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<sup>1</sup> This article, including quotations from French sources, has been translated from French by Noal Mellott (Omaha Beach, France). The translation into English has, with the editor’s approval, completed a few bibliographical references. All websites were consulted in June 2021.

<sup>2</sup> <https://publiccode.eu/openletter/>

<sup>3</sup> <https://revolution.chnm.org/exhibits/show/liberty--equality--fraternity/item/555#>

<sup>4</sup> Respectively: Act n°2016-1321 of 7 October 2016 for a “digital republic” available at <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000033202746>; a Act n°78-753 of 17 July 1978 available at <https://www.legifrance.gouv.fr/loda/id/JORFTEXT000000339241/2020-12-12/>.

Open public data, the availability of the source code developed by public administrations and the co-construction of public policies imply that public authorities shift positions. When setting up arrangements for this openness, which is intended to improve citizens' confidence in public authorities, bringing together a community of plural actors (public agents, entrepreneurs, researchers, representatives of civil society) will have an impact on public policies. The contribution of the "multitude's creative power"<sup>5</sup> to the state is a vector of technological and organizational innovation. This power opens new fields of thought about models of public action.

The rest of this article will shed light on this approach "by communities" in several open, public projects related to digital technology.

## The open-data and open-source communities in favor of public actions during the COVID-19 health crisis

During the first weeks of the COVID-19 pandemic, official sources that monitored trends in the number of hospitalizations or deaths were hard to access; and their data were hard to visualize for the public. OpenCovid19, a civil society initiative, made the first consolidated data sets, a brick then used by Etalab, the government's information service (SIG) and Santé Publique France to design an official dashboard for visualizing all data on the epidemic. Throughout France, several "maker" communities pledged to make material (open-source respirators, visors from 3D-printers, etc.) for people "on the front line" of the epidemic.<sup>6</sup>

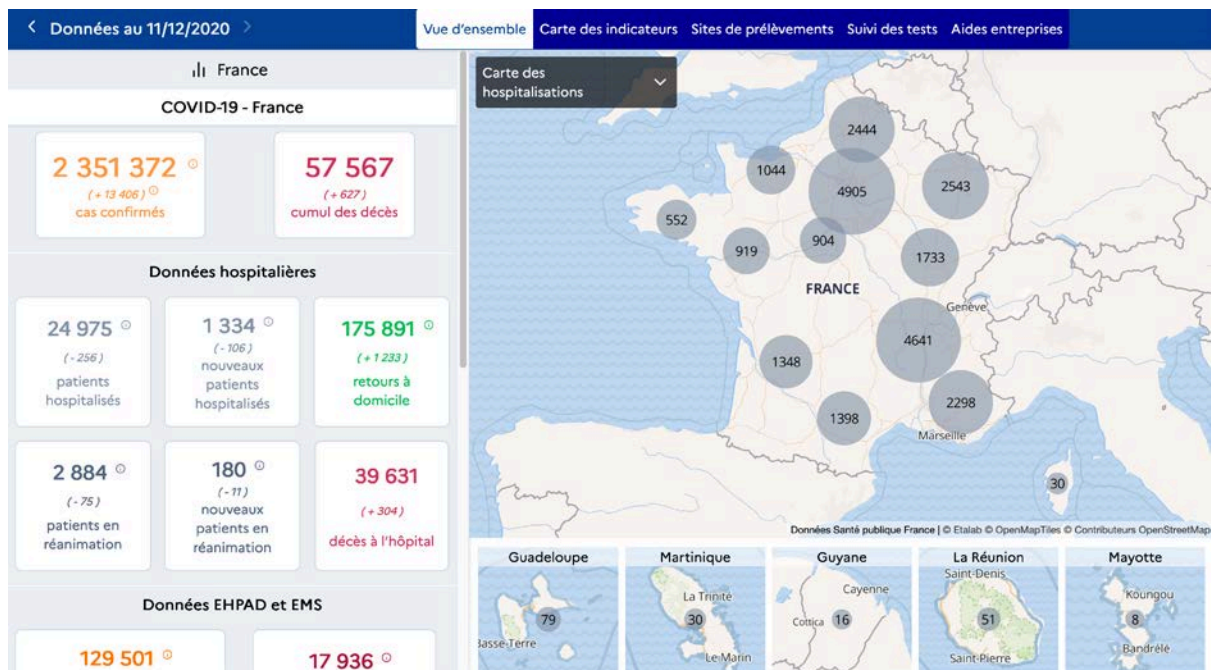


Figure 1: Screen shot of 11 December 2020 of the public data platform about the epidemic in France

Source: <https://dashboard.covid19.data.gouv.fr/>

<sup>5</sup> COLIN N. & VERDIER H. (2015) *L'âge de la multitude. Entreprendre et gouverner après la révolution numérique* (Paris: Armand Colin).

<sup>6</sup> The platform with a list of these "makers": <https://covid-initiatives.org/>.

These trends illustrated how input from civil society shapes public digital strategies. This role might be institutionalized, as in the BAN project, a partnership that sought to make and maintain a national address database.<sup>7</sup> Without always being formalized, groups shared knowledge, and exchanged methods and job offers related to open data. The #teamopendata community assembled public agents in charge of opening public data, service-providers, activists, researchers and citizens. Another community (Blue Hats – Hackers d’Intérêt Général) encouraged the public administration to use freeware and contribute to its development.

## EIG, a program for creating and galvanizing a community of innovators

During an exchange with civil society in preparations for the OGP’s fourth world conference in Paris in 2016, President François Hollande launched the challenge of “*involving entrepreneurs of the general interest to improve the relations between citizens and public officials*”.<sup>8</sup> Since 2017, several “classes” of these entrepreneurs (EIGs) have joined public administrations in order, along with public agents who want to innovate, to take up challenges related to the digital transition.



Figure 2: Screen shot of the home page of the program “Entrepreneurs of General Interest” (EIGs)  
Source: <https://entrepreneur-interet-general.etalab.gouv.fr/>

This original program has recruited for the public administration, and maintained there, persons with skills in design and the computer and data sciences. There is a strong demand for these job profiles in the private sector; and the public sector has difficulty finding recruits. To see to the smooth operation of programs and the collaboration between EIGs and public agents, a team for coordinating this program was set up within Etalab. It accompanies this community by using methods of facilitation and knowledge-sharing, and making open documents on the projects.<sup>9</sup>

<sup>7</sup> Partnership between La Poste, IGN (Institut National de l’Information Géographique et Forestière), the state (in particular the Direction Générale des Finances Publiques) and the association OpenStreetMap France. See: <https://www.etalab.gouv.fr/acteurs-publics-et-societe-civile-sassocient-pour-la-constitution-dune-base-adresse-nationale-ban-collaborative>

<sup>8</sup> <https://www.dailymotion.com/video/x4fdfed>

<sup>9</sup> For the tools used, see <https://doc.eig-forever.org/>.

This approach is, in many ways, close to the concept of “open innovation”. For one thing, all programming done by EIG teams is open source.<sup>10</sup> These technological bricks can then be reused by other open projects. For another, the recruitment of skills from outside the public administration is a sign of the latter’s openness. Finally, the EIG community has formed an association, Léon, that, over time, has shared experiences and advice, and is pursuing collaboration with public administrations.<sup>11</sup>

## **Artificial intelligence, a new frontier for open contributions**

Launched in June 2019, PIAF (Professionnels de l'Image et des Archives de la Francophonie) seeks to design training data for a French-speaking artificial intelligence (AI), and make them available in order to improve the performance of conversational devices and search engines.<sup>12</sup> A community approach was adopted from the very start. To assemble training data, texts (excerpts from Wikipedia in the case of PIAF) have to be annotated; and this has to be done by people.<sup>13</sup> Questions about ethics soon cropped up. To what degree was the annotation done by volunteers not for-free work? What motivates these contributors to a database that will be used in ways still unknown? By way of comparison, my motivation to contribute to a participatory project will not be the same if the latter is to build a center for helping the needy or a prison. In the case of PIAF, even though uses were not known at the start, a key motivation was to make the law more legible.

To cope with these limits, the project initiators adopted a transparent, educational approach. The annotation of the Wikipedia articles was a time for acquiring knowledge of issues related to the automatic processing of language. Transparency took the form of a published charter that presents the project’s meaning to its contributors. By contributing, the volunteer pledges, in a sense, to improve the presence of a French corpus on artificial intelligence and to make these data as widely available as possible. These two actions opened PIAF to the more “technically minded”. To broach questions of ethics, PIAF has been presented to students and research teams in artificial intelligence.<sup>14</sup>

## **From an assembly of communities to a “commons”: Fabrique des Mobilités**

Several public and private organizations were at the origin of Fabrique des Mobilités. The Agency of the Environmental Transition (ADEME) saw this as an opportunity for inventing forms of transportation for tomorrow and sharing the resources (experts, data, source code, methods) for this invention. Thanks to the formation of an association in 2018, resources could be pooled — shared within a community of actors who define the rules of governance for managing these resources. Fabrique des Mobilités is to muster communities and engineer the products to be put in common. The persons who join the association can create or join a thematic “community of interest” (ride-sharing, electric vehicles, etc.), be active in projects, pool resources and help develop a commons.<sup>15</sup>

<sup>10</sup> The depository of source codes of EIG projects is <https://github.com/entrepreneur-interet-general/>.

<sup>11</sup> Léon (*les entrepreneurs ouverts du numérique*): <https://entrepreneur-interet-general.etalab.gouv.fr/>. Several blogs describe the involvement of the digital community and associations, such as Wikimédia France: <https://entrepreneur-interet-general.etalab.gouv.fr/blog/2018/10/12/retour-sur-atelier-wikipedia-au-mobilier-national.html>.

<sup>12</sup> Evidence of this being PIAFagent, software for a question-answer robot for public agents: <https://piaf.etalab.studio/application-piaf/>.

<sup>13</sup> <https://piaf.etalab.studio/fin>

<sup>14</sup> See the blog on <https://piaf.etalab.studio/enseignements-contributions/>. This project resulted in a publication for the 12th Language Resources and Evaluation Conference in 2020: KERARON R., LANCRENON G., BRAS M., ALLARY F., MOYSE G., SCIALOM T., SORIANO-MORALES E.P., & STAIANO J. (2020) “Project PIAF: Building a native French question-answering dataset”, *Proceedings of the 12th Language Resources and Evaluation Conference*, available at <https://www.aclweb.org/anthology/2020.lrec-1.673/>.

<sup>15</sup> For the list of themes, see <https://wiki.lafabriquedesmobilites.fr/wiki/Communs>.

A multiplier effect is at work. Fabrique des Mobilités hosts several public digital programs (such as “The registry as proof of ride-sharing” or “My mobility account”)<sup>16</sup>. Not only does this imply that these projects will be maintained, but it also means that the technological bricks and learning experiences that have been developed in a given location (during projects) can be used elsewhere, including outside the country.

Behind this model under construction lies an opportunity for changing the rationale of partnerships between the state and private organizations, especially in the field of digital technology. An association can become a trusted third party for defining the standards for sharing public data or data in the general interest, for building a public digital infrastructure, or for imagining a digital commons of general interest.

## **Digital confidence**

The programs and projects described herein illustrate the impact of the openness of public actions and of the contribution of communities. Jointly producing resources with the assistance of digital communities can be a response to crisis situations. Opening the public sector to “digital skills” increases this sector’s capacity for change. Informing about the potential of artificial intelligence opens new perspectives on questions about the ethics of AI. Setting up associations for inventing new public policies reinvents the model of partnership in the public sector.

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<sup>16</sup> Respectively: [https://wiki.lafabriquedesmobilites.fr/wiki/Preuve\\_de\\_covoiturage](https://wiki.lafabriquedesmobilites.fr/wiki/Preuve_de_covoiturage) & [https://wiki.lafabriquedesmobilites.fr/wiki/Mon\\_Compte\\_Mobilit%C3%A9](https://wiki.lafabriquedesmobilites.fr/wiki/Mon_Compte_Mobilit%C3%A9).