"BiPart" of Participatory Budgeting. A Software Platform for New Political Practices

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Abstract. Participatory Budgeting (PB) is an yearly deliberative process for citizens to decide directly over the public expenditures. It was born in 1989 in Porto Alegre, Brazil, and awarded in 1996 by the United Nations as one of the world's best practices of local governance. ICTs have been used to support PB initiatives and increase citizens participation. However, the so called Digital Participatory Budgeting (DPB) so far mainly focused to share information on the ongoing process and to carry on the voting phase. The paper outlines the evolution of BiPart, a software platform designed for accompanying the overall PB process, and strengthening the social ties. It also presents its application in seven instances of PB in four municipalities in Italy along five years, to test its actual use and its impact on citizens' participation.

Keywords. E-participation, e-cognocracy, evaluation, effectiveness, efficacy, efficiency

Introduction

Budgeting plays a crucial role in politics as there lies a large part of political power. Moreover, in the current financial crisis an efficient use of public resources and shared decisions about them are compelling goals. In the last decades, the public opinion claims for more transparency, openness and clarity in public policies and budget management. New tools and new methods are also emerging, especially online: social reporting, open data, citizens journalism, crowdsourcing are just few of the innovative solutions to date: they all stress citizens' participation. Participatory Budgeting (PB) structures participation into an articulated and comprehensive process.

PB is a participatory practice through which people are directly involved in the decision-making over the public expenditures. It was born in 1989 in Porto Alegre, Brazil, after the fall of the last military regime, as a results of the pressure exerted by the emergent social movements and the election of the Worker Party to the city government. The aim was to overcome the limits of liberal-democracy and to guarantee more redistribution, more social justice and social cohesion, as well as more public accountability. The positive outcomes drew the attention of international institutions like the World Bank [13]; the UN-Habitat awarded PB as one of the world's best practices of

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local governance [2]. From then on, PB has gained broad acknowledgement, spreading in thousands of cities worldwide [14].

PB has been crafted when (and where) internet did not practically exist and the only way for people to be informed and participate was attending public meetings. Participation did never explode and PB, despite the excellent outcomes, did never gained enough legitimacy to impose itself as an established practice in local governance. As a result, in many places it stopped as quickly as it started. Almost at the same time, several local communities started to use the net to strengthen social ties, empower citizenship and gather civic intelligence [7]. However, the experiences of civic and community networks suffered, conversely, for a lack of deliberative power and a low impact on the real-life policies and politics [7]. Today, these two "worlds" seem to get closer and to overcome their respective weaknesses by merging the democratic deliberative practice of the PB and the lessons learned from early community networks, into the new scenario of the web 2.0, which is spreading participatory practices worldwide and raising the demand of people involvement in public affairs. PB projects are now using digital tools and online spaces to improve information sharing and transparency and to remove space and time barriers, allowing more citizens to participate.

In line with the explosion of the web for political purposes, there is now a growing and renewed interest by local authorities and citizens in PB. This interest calls, on the one hand, for finding or developing software platforms suitable to support PBs, and, on the other one, for experimenting them in real-life settings. The implementation of a dedicated software and its trial in several field cases is the kind of action research approach suggested in [8] for the future of the social web. In the case of PB, it allows researches and practitioners to see whether and how (what features) online participation can really improve the quality of deliberation and the relations among citizens, and increase the rate of citizens' involvement. Aim of this paper is to deal with these issues by introducing the design principles of "BiPart", a still under-development software platform for supporting PB, and analyzing seven cases of PB that uses it. They took place in four Italian cities in the last five years. Both the software and the case studies are initiatives of the Centre for the Study of Participatory Democracy (CSDP), a civic association born to promote PBs.

The paper is organized as follows: Section 2 recalls the main phases of a PB process and its evolution from offline to online; Section 3 presents the software platform "BiPart"; Section 4 illustrates the PB initiatives in parallel with the development of BiPart releases; Section 5 summarizes their outcomes in a comparative way; finally the last section discusses the outcomes with respect to the above research questions.

1. Participatory Budgeting: Offline and Online Practices

PB is a relatively simple process which can evolve into a more complex structure over time. Simply speaking, PB consists of giving citizens of a local community every year the power to: identify priorities, develop concrete proposals and select the projects to finance. Citizens carry on this process directly and/or appointing some fellow citizen to represent them and their priorities, especially when interacting with the local authority and the other stakeholders. Basically, the structure of the PB process consists of four main phases: (1) preliminary debate and submission of proposals; (2) selection of the hot topics and proposals and, in case, delegates who represent them; (3) evaluation and co-design of the projects, in collaboration with the municipal offices; (4) selection of

the projects to be included in the budget law. Sometimes, phase 1 and 2 are merged together. The process continues with the monitoring of the implementation of the winning projects. PB usually involves only a portion of the overall municipal budget, concerning primarily investments for public works (e.g., parks, streets maintenance) and sometimes public services (e.g., welfare or cultural initiatives). Participation is often extended to all residents older than 16 years.

Despite its institutional nature, PB is an informal process. The formal power is held by the traditional representative bodies, Mayor and City Council, which retain the democratic legitimacy by virtue of the elections, and commit themselves to carry the participatory process on and to implement the projects proposed and selected by citizens.[2] This implicit "participatory contract" [6], that characterizes PB as an option (or an opportunity) rather than a political right, together with the demanding forms of face-to-face participation (like assemblies and periodical meeting), makes PBs usually attended by a small part of the population, around 1–2% [2,14], mainly the most active citizens and/or representatives of the civil society organizations.

In order to overcome these shortcomings, many Municipalities have strengthened their PB by the support of the ICTs. Almost every PB has today its own website, which is often an informative space, as still happens in Porto Alegre.[3] Online forms are used for gathering citizens' proposals, e.g., in Chicago.[4] In other cases, like in New York City (pbnyc.org/idea) citizens can propose and interact online via interactive maps, or through online forums and/or Facebook pages. In many cases, the formal participation (e.g. voting) is still performed offline. The most innovative case is the Digital Participatory Budgeting (DPB) of the Municipality of Belo Horizonte (more than 2 million inhabitants) in Brazil. Since 2006, every two years hundred of thousand citizens vote for a list of projects only via internet and sms [4,10]; some voting stands are also provided. Sms voting – today easy and accessible to almost everybody – is widely used either in the developing countries and now even in some developed cities, like Lisbon (lisboaparticipa.pt) and Cascais (cm-cascais.pt/orcamento-participativo-2013).[5] In summary, the need of supporting PB with ICTs are pleinly emerging, but they are mainly used to sustain still prevailing offline procedures, with tools for supporting some specific actions, namely the voting, but still in a very informal way. ICTs do not accompany the whole PB process yet.

2. BiPart: Be Part of Your Participatory Budgeting

PBs landed in Italy in the early 2000s, mainly promoted by left-coalition local governments, and in a short time hundreds of Municipalities undertook it. These initiatives did not achieve significant outcomes, because they mainly adopted the weak form of PB (see note 3). By consequence, after an initial boom, PB rapidly disappeared [1]. Today, there is a new wave of PB, due to three main reasons: a) a couple of regional laws adopted for promoting participatory processes, including PBs; b) the exponential diffusion of internet and digital social networks among the citizens; c) the rise of the politi-

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[2] Weaker forms of PB, where this commitment is not taken, do also exist [8], but a recent research, anticipated in fb.me/6nxHKVgr8, shows that they are more likely to fail.

[3] http://www2.portoalegre.rs.gov.br/op/. All the URLs have been checked while writing the paper.

[4] http://www.pbchicago.org/49th-ward.html; http://www.sfpb.net/participate.html.

[5] For sake of inclusiveness, and because of the difficulties to verify people's identity, the Municipalities accept the risk to include non-residents votes.

cal movement MoVimento 5 Stelle (M5S-Five Star Movement) [3], whose young activists, especially when elected in the city councils, work to promote it. PBs are carried on by the Municipalities independently (e.g., the well-know case of Grottammare) or with the support of consulting bodies, such as the CSDP.

The CSDP activity starts in 2009 within the above described context. While most of the agencies employed in facilitating PB stay with the traditional offline process, CSDP has always conceived offline and online participation as intrinsically complementary and relied upon the wider use the web, according to the available technology. The CSDP also adopts a strongly deliberative approach to PB and designs the democratic participatory process to make it as easy as possible: according with their preferences and needs, citizens can participate in offline and face-to-face venues (assemblies, polling stations and ballot papers distributed at large) as well as online, through dedicated websites.

The first PB in the town of Canegrate in Lombardy (12,000 inhabitants), in 2010, was supported by a simple and very low-cost but still easy-to-use mash-up website. Its main role was to track the current phases of the PB process, and to collect the relevant information mainly derived from other sources like RSS, Twitter, Facebook, YouTube, Google map and calendar. The good results made the initiative pretty known around the country. Taking inspiration from Canegrate, in 2012, Cascina in Tuscany, Cernusco Lombardone in Lombardy, and the Province of Pesaro-Urbino decided to start a PB applying for the advice of the CSDP. These initiatives provided the concrete chance (and resources) to start the development of a dedicated software platform.

Its leading design idea was to create a digital "civic space" where people can: gather, share and debate "civic intelligence"; aggregate themselves around issues and proposals, territorial or thematic groups; strengthen relationships and self-organization. Moreover, the website should mirror and replicate the PB process as developed offline. This would "augment" opportunities and channels for civic action by engaged citizens, paving the way for a more immediate, effective and wider participation. In fact, the website adds persistency to the process, i.e., it should provide a "timeless" civic space alongside a more institutional and deliberative space supporting the yearly PB process. Finally, the platform should be able to support several PB initiatives in parallel, keeping costs low, facilitating the sharing of experiences among them and thus encouraging the creation of a broader community of practices on PB. None of the existing software fulfills all these requirements. The closest was openDCN, but the choice was to finally develop a new software platform from scratch.

BiPart (the name of the software, which is to be read as "BePart") has been developed as a *multi-site platform*, as it can host as many communities and PB initiatives as necessary. Assuming the framework introduced in [6], each site is provided with the following features:

- *community space*: registered citizens can report problems, define intervention priorities, publish proposals, open territorial as well as thematic groups and collect supporters and members around each of these entities. According to the essence of PB, this aims at creating aggregation of interested people around issues and transforming personal contents into collective ones, hopefully developed together. As a groupware technology, each of these entities includes forums for free debates and storage for uploading multimedia documents. They can be georeferenced into the Google map, associated with predefined categories, and tagged, in order to make searching easier. Sharing features to

the most popular social network sites allow groups to advertise their activity. Blog for outside communication and wikis for collaborative writing are features in progress;

- *deliberative space*: each community (usually through the intermediation of a proponent institution such as the Municipality) can structure a PB process according to a well-defined schedule and budget. The administrators of the platform can customize the process accordingly, by selecting the appropriate tool(s) for each phase, allowing citizens to vote for proposals, delegates and/or projects and to monitor the fulfilment of their decisions. When a PB is underway, the homepage allows citizens to follow and to be part of the ongoing activities through: (a) a bar indicating the ongoing phase; (b) a countdown informing the time left until the end of the current phase; (c); banners providing more details and links about the phase; (d) buttons linking dedicated webpages to carry out the actions. Registered citizens who want to perform deliberative actions (e.g., support and vote) can be required to authenticate their account by supplying further identification credentials (such as fiscal code or the personal Id) and the SMS verification code, sent to their mobile number; data will be then verified by the municipal offices;

- *a personal space* will be developed to show the profile, the timeline and the social relationships (e.g., group membership) of the registered users. This is of course *cross-community* as it includes all the entities and news that each user joins and follows within BiPart.

Since its early version – the mash-up solution adopted in 2010 in Canegrate (hereafter: BiPart v0.1) – BiPart has been developed incrementally, in strict relationship with the ongoing initiatives, to support the fundamental interplay between the activities in the online spaces and the social dynamics. Its development followed the design choices of the first PB initiatives, but it is now gradually going to affect the participatory process as well.

BiPart 1.0 was Java-based and allowed only to create and support proposals. It was quickly abandoned. Since version 2.0, BiPart is developed on the LAMP (Linux, Apache, MySql, Php) environment. It is available as a service at conditions fixed time by time by its owner, the CSDP. The current version, BiPart 3.0, benefits of a substantial revision of the user interface. The software can be reached through the URL www.bipart.it.

3. The Case Studies

Canegrate Partecipa! (canegratepartecipa.org) has been carried in 2010, 2011 and 2013. In the first two years, the available budget to be spent for infrastructures was not particularly relevant: 100 K€ and 150 K€ respectively, out of 11 M€ municipal budget. The development of the PB process costs around 15 K€ each year. These data are summarized in Table 1. The Municipality adopted a very easy PB structure, built on three phases: in the first phase, citizens work out proposals and collect support to let them pass to the second phase, when the municipal offices evaluate the feasibility of each successful proposals. Feasible proposals become projects that are finally put to vote, to find out which one(s) will be funded. Proposals, supports and votes can be gathered through ballot papers distributed door-to-door and in several public places,

and collected in ballot boxes placed in the same public places. They can also be collected through online forms provided by BiPart v0.1. The two voting phases lasted more or less one month each. In 2012 the PB was suspended because of the municipal elections. In 2013, the re-elected administration reduced the budget to 70 K€ because of the financial crisis. The process change remarkably, putting in place a more sophisticated form of support: rather than proposals, citizens assign relevance (from 1 to 10) to each public sector (environment, urban mobility, etc.) and appoint at most three fellow citizens for their priority sectors. The most supported citizens will become part of the PB Council, entitled to develop the projects to vote for.

Cernusco Partecipa! was carried on in 2012 only. It was structured as in Canegrate2010-2011, but in phase 1 people could also appoint a fellow citizen (delegate) to represent the projects. The budget was 100 K€ (plus around 6 K€ for the PB itself), out of 4 M€ municipal budget and 3,800 inhabitants: both these latter parameters depict Cernusco as one third of Canegrate, so the investment, roughtly the same, was significantly high. Cernusco used BiPart v0.1 in the phase 1, while for the final voting BiPart 2.0 was already available.

Cascina Partecipa! (cascina-partecipa.org) lasted for two years (2012, 2013) and has been the largest case in terms of financial resources made available both for implementing the citizens' projects and for covering the organizational costs: in 2012 the budget was 1 M€ out of the 50 M€ municipal budget, plus around 55 K€ for the PB process itself. The initiative was partially funded by the Tuscany Region that asked the organizer to include face-to-face and facilitated deliberative meetings, which took a relevant part of the PB process cost. In 2012, the proposal phase was structured as in Cernusco, but the 16 final projects to be voted were selected through deliberative meetings by the 20 most voted delegates and by a representative sample (80 people) of citizens. BiPart 1.0 has been used for the proposal phase and BiPart 2.0 for the online voting. Citizens could also vote for the 16 final projects at the Municipality offices or at moving polling stations; widespread distribution and collection of ballot papers was not provided as it was not sustainable, considering the size of the city. In 2013, the budget was reduced to 350 K€ (plus 37 K€ for the PB process) and the first phase changed considerably: there were no longer delegates and competition on proposals, but an informal gathering of citizens' "demands", collected both offline and online through the version 3.0 of BiPart. A representative sample of citizens then debated those demands and came up with a set of 14 projects to be voted. In the voting phase people were authenticated by the new procedure based on SMS.

In 2014, BiPart has been adopted by the Municipality of Faenza (oplafaenza.it), under the 20 K€ funding by the Emilia-Romagna Region. The CSDP was not involved but for providing the software. The PB was structured again in three phases as in Canegrate2010-2011: proposal&support, evaluation and vote. The budget was 100 K€ out of 110 M€ of municipal budget; the upper bound for each proposal cost was 20 K€. This is the first case in which the website has been the main channel to support and vote proposals: all the proposals, even those raised in the offline deliberative meetings, have to be uploaded. Citizens support proposals through the "I like" action in order to bring them to vote. Differently from the other cases, the municipality did not adopt in phase 2 any authentication of the identity of the participants; this choice affected the participation (see Table 1), as we shall see in the next section. The voting phase lasted 16 days and was mainly considered online. The offline voting was possible at one dedicated municipal office everyday, and at a moving polling station for only two days.

Table 1. Participation figures in the seven cases

				PHASE 2			PHASE 4		
	1	2	3	4	5	6	7	8	9
PB INITIATIVE (CITY+YEAR)	POPUL ATION	PB BUDGET (in K€)	PB COST (in K€)	**TOTAL SUPPORTERS (% of POPULATION)**	ONLINE SUPPORTERS (% of TOTAL)	ONLINE SUPPORTERS (% of POPULATION)	**TOTAL VOTERS (% of POPULATION)**	ONLINE VOTERS (% of TOTAL)	ONLINE VOTERS (% of POPULATION)
Canegrate2010	12431	100	15	**426 (03.43%)**	28 (06.57%)	0.23%	**683 (05.49%)**	136 (19.91%)	1.09%
Canegrate2011	12431	150	17	**656 (05.28%)**	74 (11.28%)	0.60%	**1220 (09.81%)**	85 (06.97%)	0.68%
Canegrate2013	12431	70	13	**234 (01.88%)**	16 (06.84%)	0.13%	**351 (02.82%)**	39 (11.11%)	0.31%
Cernusco2012	3863	100	6	**234 (06.06%)**	66 (28.21%)	0.41%	**550 (14.24%)**	65 (11.82%)	1.68%
Cascina2012	44133	1000	55	**2250 (05.10%)**	93 (04.13%)	0.21%	**1550 (03.51%)**	889 (57.35%)	2.01%
Cascina2013	44133	350	37	---	---	---	**1365 (03.09%)**	238 (17.44%)	0.54%
Faenza2014	57973	100	20	**2400 (04.14%)**	2400 (100%)	4.14%	**1353 (02.33%)**	1219 (90.10%)	2.10%

4. Early Outcomes

The description of the seven cases provides evidence for the relevant differences among them, namely, the size of the municipalities and the amount of budget put on the table for the PB with respect to the overall budget of the municipality. The structure of each PB also varies, according to specific needs and conditions. Differences affect: the duration of the phases; the mix of offline and online practices, the budget at disposal for organizing the PB process; the communication plan; the versions of the software platform. All these differences make it difficult even to compare PB processes carried on in the same Municipality in different years. The lack of continuity also hampers trends assessment. Other parameters would also be worth of consideration, as they may seriously influence participation: e.g., demographic indicators, relevant for tracking computer skills.

An analysis taking into account all these variables would require significant investments on research. However, the available budget has been allocated mainly to sustain participation, both offline and online, and to develop the participatory features of the software platform. Despite the limited information, we felt committed to analyse and compare the field experiences carried on so far anyway, to orient both PB now starting and the advocated development of the software features. Moreover, as far as we know, the literature lacks of adeguate comparative studies and so we hope that our preliminary work can contribute to open a necessary research effort. The data used for the comparison are taken from the official documents of the PB initiatives, enriched with rough data on unique users performing online actions, downloaded from BiPart 2.0 and 3.0. They are all summarized in Table 1. The number of supporters and voters are used to calculate the participation rate, over the population, in the two phases. The rate of online supporters and voters refer to the total number of participants during phase 2 and 4, respectively (rates in column 5 and 7).

We observe that participation in phase 4 is usually larger than in the phase 2, although one can assume that some supporters of the proposals that did not go to vote, abandon the process. This can be explained since voting is a rather simple and familiar activity, and citizens know their votes count for deciding which project(s) will be implemented. The only two exceptions, Cascina2012 and Faenza2014, can be explained as follows: (a) in Cascina2012, the support action in phase 2 was very strong thanks to the widespread distribution and collection of ballot papers, which did not take place in phase 4; moreover, many online votes were cancelled for irregularities; (b) in Faen-
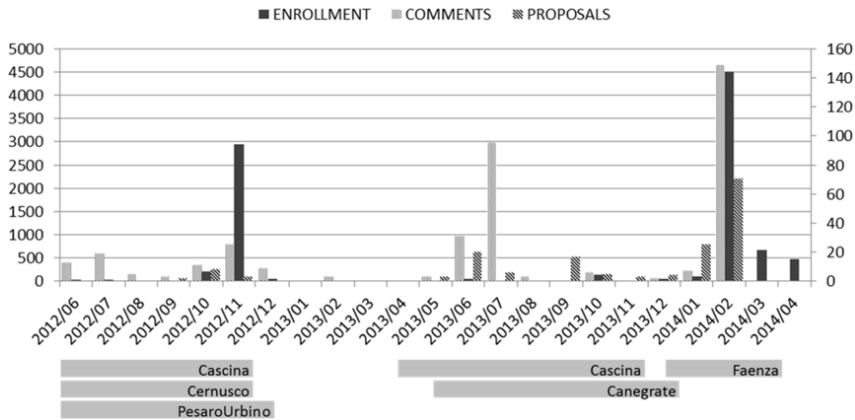
Figure 1. Online (monthly) activity in BiPart and running PB initiatives.

za2014, the high number of supporters was due to the long phase duration (76 days) and to the absence of the authentication procedure, introduced in phase 4.

A positive trend from phase 2 to phase 4 can be observed also considering the online participation over the total participation. Canegrate2011 and Cernusco2012 are two exceptions as they decided to use the massive distribution and collection of ballot papers to make the participation as easy as possible. This of course favoured offline participation. Faenza2014 is beyond consideration as phase 2 was ony online.

Cascina2012 and Faenza2014 deserve further attention to explain the two deviations from the average in the online participation: Cascina2012 has the lowest rate in phase 2 (4.13%) and the second best rate in phase 4 (57.35%). The very low rate of online participants during phase 2 can be attributed to the shortcomings of the BiPart v1.0 (after that abandoned) and, as we said, to the choice to balance this problem by collecting proposals and supports through the widespread distribution of ballot papers. In phase 4, in fact, not only citizens enjoyed the most usable BiPart v2.0, but they found easier to vote online rather than offline, because such method were no longer used.

Let's now consider the case of Faenza, the largest city of the sample. The figures show that, even if the phase 2 was developed only online, the overall participation rate (4.14%) approaches cases in which citizens have been involved also with massive offline actions. In the voting phase, Faenza exhibits the lowest rate of overall participation rate (2.33%) but the highest online voting rate (90.10%). This may due to the shortest duration (16 days) and to the weak support to offline participation.

To complete the picture, Fig. 1 shows the data (number of enrolments, scale on the left; number of proposals and comments, scale on the right) from the last versions of BiPart (v2.0 and v3.0) used since the phase 4 in Cascina2012 and Cernusco2012. The enrolment peaks (with the associated activity), at the edges of the Figure, correspond to the voting phases in Cascina2012 and Cernusco2012, and to the supporting phase in Faenza2014, while the online activity in June/July 2013 comes from Canegrate2014. It is worth noting the lack of activity outside of these time periods. This may depend on the fact that BiPart community space is still missing functionalities (such as a dashboard with a timeline and comment notifications) that could enable a broad and continuous public debate. Moreover, people still focus more on voting – and presumably on promoting the vote – rather than debate and build proposals in a collaborative way.

To conclude the analysis, the actual impact of the PB processes must be considered by assessing if the municipal administrations fulfil the commitment taken with their citizens to finance and implement the winning proposals. All the four Municipalities are in some way carrying on the decisions, despite the recent financial crisis has unexpectedly shrunk the municipal budget and postponed the implementation of some projects. This is what happened in Cernusco and Cascina. In Canegrate, the 2010 winning project has been fully implemented, while in 2011 this occurred only partially, and the outcome of Canegrate2013 and Faenza2014 are going to be included in the 2014 budget law. Despite these delays, what matters is the high public commitment of the Municipality to implement the outcomes anyway, and their resulting effort to explain to the citizens the reasons of any possible hurdle.

5. Conclusion

The paper outlines BiPart, a software platform for supporting PBs, and presents its application in seven instances of hybrid (offline and online) PB in four cities in Italy along five years. Despite the difficulties in comparing initiatives which differ in many parameters, some general outcomes can be drawn. Compared with the trend, mentioned in the Introduction, that settles participation in offline PBs between 1–2%, data from the seven cases show that citizens' participation rates was higher in both phases almost everywhere, although they are still far from the best practices of DPB, such as in Belo Horizonte, Lisbon and Cascais.

These encouraging results can be finally explained by two main design choices: the "participatory contract", which strengthens the mutual commitment between citizens and institutions, and the interplay between offline and online venues, which aims at making participation simpler and more accessible. The basic idea behind all the field cases described so far is to overcome the hindrances of the face-to-face meetings, typical of the traditional PB, bringing the participation to people's homes. This is has been achieved by making PB "shareable" by and among citizens, through the distribution of ballot papers and the online facilities, enabled by BiPart. However, this kind of offline activity is (more) feasible in small towns. As the community becomes larger, it turns to be too expensive and even more hard manage to participation. The digital solutions are therefore more sustainable, as it maintains a good degree of participation according to the available resources. This is what happened in Cascina2012, where the online participation assumed a more prominent role than the offline, and in Faenza2014, where the last version of BiPart was mature enough to support almost the entire participatory process, balancing the lack of offline actions.

The exception among the seven cases is Canegrate2013. The low rates are probably due to the decision to experiment a new and more complex PB process which, together with other contingencies, created a severe hindrance to citizens' participation, so interrupting the quite well-established process built in the first two years. However, the winning proposal – "providing support to families in economic difficulties" – suggests that the quantitative drawbacks are balanced by the quality of deliberation in terms of social cohesion.

In summary, a carefully-designed interplay between the offline and online is therefore still necessary. On the one hand, the absence of offline procedures could question the PB as non-democratic, because of the well-known "digital divide". On the other hand, digital technologies are nowadays spread enough to be widely used and to help

overcoming the symmetric – although less recognized – "physical divide". This conclusion fits quite well with the just published chapter by Cardoso Sampaio and Peixoto [4] when they claim: "*Finally, we agree that, given the current experimental phase between the PB and technologies and access issues in developing regions, mixed processes with online and offline phases may be the best solution, though not in an automated way*"; and "*Despite its experimental nature, there is concrete evidence that the relationship between PBs and technologies can be beneficial to participatory processes and that there are still good opportunities that have not been taken*".

In this open scenario, the seven cases presented in this paper do not constitute a statistically significant sample, but the opening of new PB initiatives will provide further data and more resources to implement software facilities. PB is now running in two large cases: in a district of the city of Turin, the capital of the Piedmont region, (around 90.000 of 870,000 inhabitants; torino.bipart.it), and in the city of Monza (120,440 inhabitants; monza.bipart.it), in the close neighborhood of Milan. They are enjoying some improvements to BiPart, inspired by the former experiences. Among the others: the implementation of the personal space (dashboard, timeline and notification system), the improvements of the community space (groups management), log files and web analytics to get richer participation statistics.

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