12. The challenges of anti-corruption technologies from the grassroots

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INTRODUCTION

The chapters in this volume investigate several examples of citizens, activists, civil society organisations, and social movements in which digital media have been used to counter corruption. All these examples might be grouped, as I argued in Chapter 1 of this volume, under the umbrella concept of anti-corruption technologies (ACTs), a heuristic that allows us to appreciate the various elements that come into play when anti-corruption from the grassroots digitalise. Taking into account these elements and their configurations, the chapters presented in this volume show why ACTs come to have the shape they have, evolving across time in unforeseen directions, and having to take into account also the sometimes troubled interactions among the digital technologies, the expectations of anti-corruption activists and other social actors, and the actual usages of digital technologies that happen when an ACT is brought into the world and becomes fully operative. Through the investigation of different cases of ACTs across the world, the chapters in this volume also suggest that it is necessary to go beyond a universalistic understanding of digital media and their use in anti-corruption activism. Indeed, digital media might have distinct roles for anti-corruption from the grassroots depending on the country in which activists use them and for the scopes that activists want to fulfil when employing them. Deciding to use digital media in a hybrid regime to fight grand political corruption schemes requires activists have a different strategy than the one necessary to support citizens voicing their anger as a reaction to yet another corruption scandal in their democratic country. This means that the symbolic, material, and social elements that come together in ACTs might also be extremely varied according to the situation and context in which anti-corruption activists use them. They combine in different ways and it is by taking into account such a process of combination and the resulting socio-technical assemblages, with their peculiar configuration of material, symbolic, and social elements, that we can eventually also appreciate the chal-

lenges that ACTs pose. In the first chapter of this volume, I talked about some of these challenges and the impact they might have on the struggle against corruption.

In this concluding chapter, I offer a more structured reflection on four main aspects that characterise ACTs. First, in the next section, I consider a feature that is strictly linked to the symbolic elements of ACTs: their ability to evoke and, in some cases, put into practice different imaginaries related to democracy. More specifically, I consider three types of imaginaries and show how each of them is connected to one of the three types of ACTs that I introduced in Chapter 1 of this volume: monitoring democracy, for ACTs that expose corruption; agonist democracy, for ACTs that support the organisation of mobilisations against corruption; and deliberative democracy, for ACTs that sustain citizens' participation connected to anti-corruption. Second, I focus on the material elements that anti-corruption activists include in their ACTs, and how they often combine one with the other, bringing together different types of features that might be difficult to reconcile. At the same time, I also explain how the availability of certain material elements, like for instance a solid internet infrastructure in the country, is not a sufficient condition to see civil society organisations embrace digital media as an anti-corruption leverage. Third, I discuss the recombination of social elements that occurs in ACTs, in which a number of social actors need to find their ways to put together their different aspirations, capabilities, and understanding of anti-corruption efforts. Fourth, in the final section of this chapter, I summarise the main points that emerged in the previous sections and conclude with a reflection on a more complex issue, which touches upon the configuration of symbolic, material, and social elements in ACTs: the durability, over time, of anti-corruption initiatives from the grassroots that make use of digital media and technologies to sustain their efforts.

THREE IMAGINARIES OF DEMOCRACY THROUGH ANTI-CORRUPTION TECHNOLOGIES

As discussed in Chapter 1 and illustrated in many of the other chapters included in this volume, ACTs come with some relevant symbolic elements. Amongst other things that happen at the level of signification in ACTs, activists start from and render concrete specific interpretations of the causes of corruption and, consequently, of the type of actions that might be good to eradicate them. In other words, they envision how democracy should work so that the risk of corruption is also minimised thanks to the employment of digital media and technologies. In what follows I briefly discuss three imaginaries of democracy that ACTs might embed, which are also presented in Table 12.1, considering their main target of intervention in the political realm.

Exposing Corruption and Monitory Democracy

A relevant type of ACT is the one whose scope is to expose corruption in societies, hence augmenting citizens' awareness of corruption and making its consequences more immediately visible. In this regard, anti-corruption from the grassroots occurs through the coordinated engagement of several activists, their allies, and those citizens who decide to participate in the activists' initiatives with a more active role. It is a form of engagement that does not necessarily involve protests in the streets, but it rather goes in the direction of civic actions that increase knowledge on corruption to reduce the asymmetry of information between elected officials, public servants, and citizens that support corruption. Such initiatives are a relevant intervention at the level of policy because they seek to enhance the transparency of the implementation of public policies and the related acts, for instance concerning public spending, a factor that plays an important role in hindering corruption in societies.

From this perspective, ACTs are clearly related to an imaginary of monitory democracy (Rosanvallon, 2006; Keane, 2011) in which people actively monitor the conduct of those they entrusted with power to see if they are not betraying their confidence. ACTs to expose corruption indeed enable democratic practices that entail many forms of monitoring activities, putting at the centre of the democratic process people connected through digital media and technologies, like in the case of crowdsourcing platforms that allow citizens to come together to monitor the otherwise hidden corrupt behaviours. In the framework of such an imaginary, the harvesting, curation, and transformation of data about the practices through which public policies are implemented becomes crucial for activists and movement organisations. As it is also clear from the chapters presented in this volume, ACTs allow for this to happen in different ways. Some ACTs track instances of corruption and proof related to it by collecting information from concerned citizens thanks to specific digital technologies, such as secure whistleblowing platform, as is the case of *ALAC-Allerta Anticorruzione* discussed in Chapter 7, or crowdsourcing information platforms, as we can see through the example of I Paid a Bribe (IPAB) presented in Chapter 5. Other ACTs allow for the gathering of information related to potential corrupt behaviours thanks to specific software and algorithms, like *Operação Serenata de Amor* discussed in Chapter 2. Finally, there are some ACTs that make data about potential instances of corruption available to the broader public, making it accessible and intelligible through interactive websites that can arrange and visualise content about corruption in a user-friendly manner, like the wide array of initiatives promoted by *Openpolis*, discussed in Chapter 9.

Table 12.1 Types of anti-corruption technologies and imagined forms of democracy

Type of ACTs	Imagined Form of Democracy	Main Target of Interventions	Initiatives Discussed in the Volume
ACTs to expose corruption	Monitoring Democracy	Policy, through the monitoring of policy implementation	Observatório Social do Brasil (Chapter 2); Operação Serenata de Amor (Chapter 2); Operação Política Supervisionada (Chapter 2); Tá de Pé (Chapter 2); Financiamiento de campañas en Uruguay (Chapter 3); ¿Qué Sabés?(Chapter 3); I Paid a Bribe (Chapter 5); ALAC - Allerta Anticorruzione (Chapter 7); GlobaLeaks (Chapter 7); Misión de Observación Electoral (Chapter 8); Pilas con el Voto (Chapter 8); Openpolis (Chapter 9); Open PNRR (Chapter 9); Transparency Watch (Chapter 10)
ACTs to organise mobilisations	Agonist Democracy	Politics, through the emergence of new political actors	Movimento de Combate à Corrupção Eleitoral (Chapter 2); Movimento Contra Corrupção (Chapter 2); Movimento Brasil Livre (Chapter 2); Vem pra Rua (Chapter 2); Facebook group of Manish Msamah (Chapter 4); Twitter hashtag #WinouelPétrole (Chapter 4)
ACTs to sustain participation	Participatory Democracy	Polity, through the restructuring of procedures and norms for participation	Facebook group 22 Février 2019 pour une Algérie Meilleure et une Démocratie Majeure (Chapter 4); Facebook group ‘écris ta constitution. Project citoyen pour un transition en Algérie’(Chapter 4); Estonian Citizens’ Initiative Portal (ECIP) rahvaalgatus (Chapter 6); Ficha Limpa Campaign led by the Movimento de Combate à Corrupção Eleitoral (Chapter 2)

Despite being different in some respects, all these ACTs work in the direction of increasing citizens’ ability to see at work an otherwise hidden phenomenon and to understand its magnitude. This is in line with what Pierre Rosanvallon (2006) notices about the more recent developments of democracy, as both

an ideal system and a concrete project, which has been characterised by the expansion of the power of oversight by the people, along with the development of institutions for electoral accountability. According to Rosanvallon, the elective place in which citizens exert the power of oversight today is the Internet, with its blogs and websites that render more common practices of evaluation, supervision and surveillance coming from the bottom-up (ibidem). In this volume, it is clear that there are even more sophisticated ways to employ not just the Internet but more broadly digital media and technologies to exert the power of oversight for civil society organisations, social movements, and citizens: the many ACTs discussed in the previous chapters often point to a combination of different digital media, integrated usages of online and offline interactions, and technologies that allow multiple forms of engagement to make corruption visible. Furthermore, Chapter 11 also points to current and future development in monitoring democracies due to the employment of AI-based ACTs that might augment, in an exponential manner, civil society organisations' capability of scrutinising wrongdoings related to corruption starting from the automated analysis of large quantities of data.

Organise Mobilisation and Agonist Democracies

The creation and employment of ACTs might also support demands for changes to happen in relation to situations of corruption by coordinating mobilisations directed at politicians, public administrators, business chief executives, and others involved in corruption scandals or suspected of being so. In this volume, examples are the employment of digital media to support massive protests that occurred in Tunisia, in 2010, and Algeria, in 2019, as well as the continued employment of digital media to counter corruption after these protests reached their peak, as discussed in Chapter 4. But also a number of social movements that developed in Brazil over the years, covered in Chapter 2, including the *Movement to Combat Electoral Corruption*, which emerged in 2010 and was one of the first to develop an online strategy and use social media to both mobilise supporters and put pressure on politicians, and the other movements that emerged between 2013 and 2014 and are heavily based on social media platforms, such as the *Movimento Contra Corrupção*, *Movimento Brasil Livre,* and *Vem pra Rua.* Indeed, thanks to the connecting affordances of social media platforms, online spaces that allow otherwise unrelated individuals to gather and vent their frustration, discontent, and anger concerning corruption, might be the starting point of online or offline mobilisations against corruption.

In all these cases, ACTs become crucial to support citizens' engagement against corruption as political contention, in which grassroots conflicts are a relevant leverage to increase accountability in societies. The presence of protest disrupts the ordinary unfolding of events and is a strong expression of

disagreement according to which citizens demand answers and change from the power holders that are considered corrupt and hence unable to represent the general interests of the citizenry anymore. In such a context, ACTs might sustain contentious politics on corruption, allowing the convergence of multiple grievances that coalesce around the same contentious issue through different kinds of digital media and technologies. When this happens, ACTs are tied to an imaginary of democracy that considers the engagement with conflict and the experience of agonism in politics as a vital component of democracy (Scudder & White, 2023; Honig, 1993). In this regard, then, ACTs become crucial in aggregating discontent in societies, somehow ordering it into broader processes of mobilisations thanks to which conflicts against the corrupted are brought to the fore. Even more importantly, this is done seeking to unsettle, through collective or connective actions in the framework of contentious politics, the corruption settlements that frequently see the involvement of institutional political actors, as well as of state actors and their public administrations. Therefore, ACTs become relevant in that swing between 'a politics of settlement and a politics of unsettlement' that characterises the idea of agonism in democracy (Honig, 1993) so that those that are treated unequally due to the presence of a politics settled around corruption malpractices might become visible through their conflictual political agency, with the aim of disrupting the existing patterns of political corruption and of keeping those responsible for such patterns accountable. From this perspective, ACTs that evoke the imaginary of agonist democracy tend to make an intervention in the realm of politics, since they allow for the emergence of novel, conflictual political actors as interlocutors for those that are already present, who thus enter into different types of relationships with the new ones, either as allies, opponents, or even targets of protest.

Furthermore, ACTs employed to organise mobilisations bring with them the promise of increasing equality in the framework of contention politics, in at least two manners. On the one hand, thanks to the relative accessibility of many types of digital media and technologies, ACTs allow anti-corruption activists with scarce resources to mobilise a large number of citizens and, furthermore, they also permit individual concerned citizens to express their anger and seek out other equally concerned citizens who might join them in their struggles. In this regard, anti-corruption activists and concerned citizens are more equal to power holders considering their chances of becoming visible in the public space. On the other hand, ACTs contribute to the formation of novel political actors that enter the political scene in the name of demanding accountability through disruptive means, positioning themselves almost as equals vis-à-vis those political actors and institutions against whom they are lashing out. In this regard, the legitimacy gained through the logic of numbers and of bearing witness through the use of protest (della Porta & Diani, 2020)

supported through ACTs, makes the viewpoints (and demands) of these novel political actors worth the attention of the more established ones. Such a promise of increased equality that ACTs bring with them is also in line with a certain understanding of agonism in democracy, ultimately seen as a 'political commitment to equality' (Maxwell et al., 2019) in societies, so that those who are left behind can gain centre stage and have their voices heard.

Sustain Participation and Deliberative Democracy

In other cases, anti-corruption activists decide to develop ACTs that tackle corruption in a more indirect way, favouring citizens' participation in the policy-making process so that they can have their voices heard also concerning issues like transparency, integrity and, of course, corruption. These are online platforms built to favour the equal participation of all those interested, promoting hopefully constructive dialogues about specific contentious issues with the aim of proposing new pieces of legislation after a process of online deliberation. For anti-corruption activists and their civil society organisations, then, it is a matter of encouraging people to participate in those decision-making processes that are normally delegated to elected representatives in parliaments and other local assemblies, such as regional or city councils.

The resulting ACTs seek to favour the direct participation of people in the political process and they undoubtedly evoke an imagery of deliberative democracy, which focuses on people's ability to collaborate to find solutions to the problems they face as a collectivity. From this perspective, ACTs support knowledge sharing and informed debate, and provide tools to select the best proposals together. They are often platforms with a high level of sophistication that in some way reproduce (or flank) city assemblies aimed at making decisions together on relevant issues. While positioning citizens, and their collective interests, on the input side of politics, this type of ACT is a clear intervention at the level of polity and has a procedural effect in that they create from scratch, or expand, spaces where citizens can debate and make concrete proposals to the State and its agencies, through the use of digital media and technologies.

A telling example in this regard is the case of the *Estonian Citizens' Initiative Portal*, discussed in Chapter 6, in which the employment of open-source code to create the e-petition platform was translated into the somewhat utopian idea of 'open-source legislation' according to which citizens could not only see the legislative process when it happens, hence increasing transparency, but also directly participate in it through the crowdsourced recombination of already existing pieces of legislation, so as to improve it also through deliberation. In this case, the creation of ACTs is linked to a rethinking of the social contract that would revolve around practices of political participation where citizens

have a highly active role, being deeply ingrained in the policy-making process not because policy-makers simply consult them on some topics but rather because citizens exert their agency along the whole policy-making process. This process evokes other recent experiences of so-called 'crowdsourced constitutionalism' according to which citizens participate in the development of their countries' constitutions, like what happened in Iceland, between 2009 and 2012, and in Ireland where in 2012 citizens actively contributed to revising their constitutional chart (della Porta, 2020). Interestingly, especially in the case of Iceland, the crowdsourcing of the constitutional process was entrenched with the employment of digital media and was also triggered, at least in part, by a widespread perception of corruption in the country, especially concerning the private business sector (Bani, 2012; Vaiman et al., 2011).

THE DIVERSE MATERIALITY OF ANTI-CORRUPTION TECHNOLOGIES

The material elements are an important part of ACTs that, as seen in the chapters presented in this volume, might range from commercial social media platforms where critical communities against corruption forms to websites, crowdsourcing information about bribery occurrences, from global secure whistleblowing platforms to local online tools to monitor electoral corruption. In many cases, ACTs combine high-tech and low-tech solutions: even when AI-based applications are at the forefront of ACTs, they are seldom alone as exemplified by the case of the *Operação Serenata de Amor* in Brazil discussed in Chapter 2, where different technological layers combine into a multifaceted ACT (cfr. also Odilla & Mattoni, 2023). What seems to count, when considering the material elements of ACTs is not so much the employment of the latest, most innovative digital technology available to anti-corruption activists, but rather the latter's ability to select the digital media which is more consistent with their needs, to appropriate it in the best way possible given the anti-corruption initiative at stake, and to combine the digital media effectively with other types of material elements. The development of an ACT that combines a wide array of digital media and technologies, some more high-tech while others more low-tech, is a complex and yet necessary strategy that allows civil society organisations to take care of the multiple challenges that the gathering, curation, and diffusion of data about corruption entails when crowdsourcing mechanisms are at stake.

For instance, Chapter 7 on the whistleblowing platform *ALAC-Allerta Corruzione* developed in Italy shows how important it is to combine highly sophisticated technological solutions with much more simple ones to enhance the security of potential whistleblowers. The presence of a basic online form to gather information about the context of the whistleblowing activity allows for

increasing the security of the whistleblower. At the same time, this arrangement gives more information to *Transparency International Italy* to decide on the best course of action to be followed. In this specific case, security is not granted just through high-tech material elements but rather thanks to the complementary use of low-tech material elements that allow for adding a layer of operational security to the whistleblowing platform. Similarly, Chapter 10 presents the case of *Transparency Watch* in North Macedonia and illustrates how a combination of digital technologies might be the way to go, instead of just relying on one specific digital media. The initiative and its multiple entry points for citizens to deliver their reports on corruption should be secure concerning the protection of citizens' privacy. After the data verification and validation occurs, often through low-tech material elements, the initiative makes available the data in a curated manner on a website, but then also makes it accessible even beyond the online environment, through a television programme based on cases of corruption discovered thanks to *Transparency Watch*. In a similar vein, the civil society organisation *Mission of Electoral Observation* in Colombia, addressed in Chapter 8, also shows how digital devices are often not the only type of material element present in ACTs, that frequently exceed the digital realm and the most high-tech solutions. In this case, the *Mission of Electoral Observation* was able to successfully combine the offline contributions of its volunteers present at the ballot boxes at the moment of voting with the online reports that citizens who had first-hand information about electoral corruption filed through the platform. Finally, a further combination is possible of more established digital technologies with those that are emerging to quickly spread anti-corruption messages from the grassroots. In this regard, Chapter 11 suggests that some ACTs making use of AI-based applications can automatically transform the detected red flags on corruption into calls to action to be circulated through social media platforms. In this case, the information asymmetry that usually characterises the relationship between citizens and the public officials they elected can be lowered. At the same time, citizens are offered a way to activate themselves and counter corrupt behaviours, for instance by signing a petition.

Another relevant reflection that emerges in this volume is that the presence of a good Internet infrastructure and the widespread employment of digital media in a country, including social media platforms, might be an important condition for the development of ACTs that heavily revolve around digital media, but it certainly is not a sufficient one. Other elements should be there, one being the civil society actors' willingness and capability to embed digital media in their anti-corruption initiatives. The case of Uruguay, discussed in Chapter 3, makes this point clear and shows that the material elements of ACTs are certainly important, but they are less so when considered in isolation from other elements, like the social ones. It is indeed the encounter between the

material elements and the social elements, between the technological devices and the activists who manage them, that seems to count more in determining the emergence of ACTs.

Finally, another relevant aspect that characterises ACTs is their capabilities, through specific material elements, to produce data related to corruption. It is not rare that, nowadays, anti-corruption activities revolve around the production, elaboration, and dissemination of data about corruption, and that activists use digital media to enhance people's ability to capture information, aggregate and transform it in meaningful ways, and disseminate it beyond the inner circles of movement organisations that struggle against corruption. In this regard, data becomes a valuable resource for activists, who use digital technologies not only as sources of such data, but also as venues in which diverse data can convene, become homogeneous, and connectable, allowing activists to combine the dots into a meaningful, more understandable story about corruption. This was clear in Chapters 9, 10, and 11 in this volume which addressed the issue of data about corruption from different angles: the presence of data that can reveal the existence of corruption in societies becomes central, hence giving data a strong performative role in keeping democracy alive. The availability of good data able to make corruption visible, or the ability to produce it, seems to be vital for those ACTs that put the creation of information about corruption at their core. Indeed, when civil society actors interact with digital media and technologies (either to employ or create them) they need to have, or to develop over time, digital media literacy, and, even more importantly, digital data literacy. Knowing how to harvest data, work on them, and render them accessible is crucial for monitoring and participatory initiatives. This becomes increasingly more important when considering AI-based ACTs, as discussed in Chapter 11: for them to work the availability of data on which machine learning techniques should be used to prevent the possibility of corruption or to detect corrupt behaviour when it has already happened is vital. Beyond the fact that such data is often not available, another concern is that even when it is available, it is often not ready to be used by machines because it needs to be polished before being employed. A slight change in the way data is made available by the public administration might put at risk the proper function of the whole ACTs, as it happened for instance in the case of *Operação Serenata de Amor* (Odilla & Mattoni, 2023) also addressed in Chapter 2.

But there is more to that: the engagement with specific material elements within ACTs might also bring with it a performative aspect and has the potential of transforming the social actors engaged in anti-corruption initiatives. Such an aspect is discussed at length in Chapter 9 when presenting the experience of the civil society organisation *Openpolis* in Italy. This case study makes it clear that the technological skills to design and develop ACTs strongly revolving around the creation and diffusion of data about corruption might be

paired with the ability to engage with those social elements, and professional abilities, that are more immediately related to the realm of journalism. Overall, the chapter also illustrates how ACT initiatives might even shape the very collective identity of the civil society organisations that develop them. While this may not always be the way, in the case of *Openpolis* the design and development of a large number of ACTs led the civil society organisation to first try to change its relationship with journalists and other actors, by positioning itself as a reliable source of information (and data). Then, when realising that it did not have the visibility it had hoped for, *Openpolis* decided to reposition itself to protect its ACTs, becoming a storyteller rather than just a source of information.

THE RECOMBINATION OF THE SOCIAL ELEMENTS IN ANTI-CORRUPTION TECHNOLOGIES

As discussed in several chapters included in this volume, amongst the social elements in ACTs there are individual and collective actors that decide to engage in anti-corruption initiatives through the use of digital media and technologies. One aspect that stands out as particularly important in this regard is the creation of collaborative interactions between different types of social actors when engaging in the creation and adoption of ACTs in anti-corruption initiatives. Amongst others, Chapter 7 on whistleblowing platforms stands out as a relevant tale concerning the creation of alliances between different types of civil society organisations. In the whistleblowing platform *ALAC-Allerta Anticorruzione*, the material elements related to the digital technologies used in the platform are the outcome of the collaboration of two civil society organisations. One, *Transparency International Italy*, the Italian branch of the transnational civil society organisation *Transparency International*, which is more traditionally connected to the anti-corruption sector while not having the technological skills in-house to develop a whistleblowing platform by itself. The other one, *GlobaLeaks*, a civil society organisation that operates globally, but is strongly anchored in Italy where it took its first steps, precisely because of its ability to develop whistleblowing platforms characterised by the highest security standards. Another relevant example in this regard is the case of *Uruguay Trasparente* discussed in Chapter 3, a civil society organisation for which the use of digital media did was not the most immediate, and natural, choice, mainly due to the lack of resources and the reluctance of its members, also for generational reasons, to employ digital media to sustain their anti-corruption activities. Despite this, the civil society organisation at a certain point decided to embrace digital media thanks to a collaboration with a higher education institution, a news organisation, and a foreign non-profit

foundation when engaging in the campaign *Financiamiento de Campañas en Uruguay*.

The establishment of this kind of collaboration allows civil society organisations to acquire the necessary resources to employ digital media, although these experiments might be short-lived as in the case of Uruguay. In both cases, it seems quite clear that a necessary element was the expansion of the civil society organisations' network through the inclusion of new social actors (sometimes even collective but not necessarily so) that brought with them the necessary technological skills to design and develop the ACTs. The decision to go digital, indeed, seems to be paired with the identification of potential partners that have the necessary skills to deliver the ACTs and make it appealing to its imagined end users. The enlargement of the civil society organisations' network seems, therefore, a necessary condition that might, however, also create some frictions especially when it comes to translating the symbolic elements of the ACTs (for instance, the values of the civil society organisation and its understanding of political participation) into some material elements, like the technological affordances the ACTs come with. This is even more relevant, as Chapter 11 suggests, in those cases in which civil society organisations consider the employment of AI-based applications. Indeed, the designing, creation, and maintenance of AI-based applications and platforms require high-level technological skills that not all civil society organisations might have and that are difficult to acquire.

In this regard, a relevant skill to be developed for the creation of ACTs is the ability to combine in a fruitful manner the different understandings of the role(s) that data might have in anti-corruption initiatives. Anti-corruption practitioners, software developers, and the final users of these digital media platforms understand digital media technologies and what they can do in different ways. There is hence the need to develop listening skills so that these differences in comprehending data related to corruption become a richness and not an impediment. Even more so, there is the need to translate these different understandings into a common language of anti-corruption through ACTs that is able to keep together the technological affordances with the political agendas of activists, the software developers' understanding of corruption and the expectations and needs of end users. The end users seem to be particularly important in ACTs that, most of the time, find their raison d'être precisely when actors other than the initial creators appropriate and utilise it. If this utilisation does not take place, ACTs risk remaining sophisticated empty boxes. For this reason, another relevant pattern of collaboration, mediated by the material elements in the ACTs, is the one between the ACTs' designers and creators, that often are collective actors, and the citizens, hence individual actors, who decide to engage with the ACT, either to know more about corruption or to create data about corruption. In ACTs, indeed, a profound

tension is always present between collective and individual political participation against corruption, that ACTs somehow seek to recombine in a whole anti-corruption initiative in which there is a virtuous circle between collective and individual actions. However, the encounter between the collective and the individual actions that happen in ACTs is not without consequences for the ACTs themselves.

In some cases, such consequences are quite evident because ACTs transform, even at the level of their material elements, to accommodate the way in which individual actions happen. This is the case of the Estonian Rahvaalgatus platform discussed in Chapter 6, according to which the platform developers had to tweak it after they realised that using certain terms to label one specific function was diminishing individual actions within the platform. In other cases, individual actions are less impactful but, nonetheless, tell about citizens' engagement with anti-corruption and their interpretation of what this means. For instance, in the case of the IPAB website developed in India and discussed in Chapter 5, it is clear how those who denounced a bribe through the platform also did it in a confessional way, to seek relief for something they did wrong, and not simply as an act of anger against the corrupt public officials. In yet other cases, like the development of the *Transparency Watch* initiative in North Macedonia, discussed in Chapter 10, there is careful planning at the level of platform designing. This allowed the civil society organization behind the initiative to think things through concerning the contribution of individual actions in the initiatives, hence engaging in some kind of predictive work about the target audience of *Transparency Watch*.

The recombination of the collective and the individual engagement in the struggle against corruption stands out as one of the relevant challenges that civil society organisations have to face when they decide to embrace digital media and technologies to include them in their anti-corruption initiatives. This is because most of the digital media and technologies employed in the framework of ACTs support individual acts of engagement often based on the logic of crowdsourcing: through multiple interactions between digital media and individuals, the necessary information is obtained to compose a mosaic concerning the perpetration of corruption-related behaviours. However, this myriad of information, data points on corruption, only acquires meaning when reassembled through the presence of a collective actor that is able to illuminate the patterns and qualities in simple terms, also through the help of digital visualisation experiments. In short, the very existence of ACTs seems to depend on the ability to balance and harmoniously combine the efforts of civil society organisations with those of citizens who interface with them through ACTs.

THE DURABILITY OF ANTI-CORRUPTION TECHNOLOGIES AND SOME CONCLUDING REMARKS

So far in this chapter, I have discussed more at length aspects related to the symbolic, material, and social elements of ACTs in a separate manner. First, I explained how the creation and employment of ACTs are connected to certain ways of understanding democracy, the role of citizens in them, and the relationship between citizens and political institutions that they want to hold accountable in the attempt to decrease corruption and augment integrity in societies. Designing ACTs, hence, is also an exercise of imagination about the future rather than a simple technological effort and, at the same time, allows for the experimentation of such future in the present moment, when ACTs are eventually there in their concreteness, ready to be used to expose corruption, to organise mobilisations against it, and to expand citizens' capabilities to counter corruption through grassroots participation. In other words, as already said above, ACTs might be rightly included amongst the many experimentations with prefigurative politics that are quite common in the framework of grassroots political engagement. And, as often happens when experimenting with something new while looking straight towards the future of societies, the imaginaries that ACTs at first let emerge might change also in unexpected ways. This happens when actual users start interacting with them, opening up unforeseen possibilities that exceed, or even go against sometimes, what their creators had imagined for them. In this regard, the struggle against corruption through digital media comes with a layer of indeterminacy in relation to the meanings of political action, participation, and democracy when these are connected to the desire and need to live in societies that are less corrupt, more integral, and ultimately more just.

Then, I considered how the inclusion of digital material elements in ACTs is not necessarily linked to the availability of an internet connection in a country. What seems to be needed, instead, is the capability and willingness of anti-corruption actors to embrace the opportunities that digital media and technologies would give to them if included in their initiatives to expose corruption, enhance mobilisations and contentious protests, and support citizens' participation with regard to policy and politics. Sometimes, such capability and willingness are simply not there, for various reasons, including generational ones. Furthermore, it should be noted that the material elements that characterise digital media and technologies come with specific affordances because they allow those who interact with them to do some things and not others, to engage against corruption in one way and not in others. At the same time, the decision to engage with certain material elements, like for instance platforms generating data about the activities and expenses of elected

Members of Parliament, might also bring with it broader consequences for anti-corruption activities and hence reveal an even stronger performative function of digital media and technologies that often remains in the background. That is to say, the possibility of transformation for those social actors that employ certain types of digital media and technologies, which change their role and responsibilities in the framework of their anti-corruption efforts. That said, it is important to notice that not all digital media and technologies bring with them this broader transformative potential and, also, that their availability alone does not automatically means that civil society organisations decide to employ them to counter corruption. As a matter of fact, the material elements become alive, so to say, in their encounters with the social actors who decide to create and employ them.

Finally, I reflected on the relevance of nurturing collaborative interactions amongst the different types of social actors involved in the designing and creation of ACTs. As complex, multi-layered socio-technical assemblages, ACTs are never, and cannot ever be, the result of one activist or one civil society organisation. Even in those initiatives in which this seems the case, for instance when a citizen concerned about corruption decides to open a social media profile to vent anger against corruption, there is always some other social actor involved: not only other concerned citizens that choose to express their frustration as well by interacting with the social media profile, but also the algorithms running it, which become of course yet another social actor to be taken into consideration. In other cases, such collaborative interactions are quite evident: civil society organisations partner to develop a highly sophisticated whistleblowing platform, whole groups of citizens come together in online critical communities, civil society organisations actively engage citizens to produce further information about corruption. In all these cases, collaboration is a necessary feature of ACTs: not only do they enable interactions based on mutual help amongst different social actors, but would not last long without such interactions. At the same time, such a coming together of different social actors is not without its problems and presents at least one challenge that I discussed above: the recombination, within ACTs and more in general in the framework of anti-corruption initiatives, of individual and collective actions. This is not a banal recombination, because it is connected to two forms of involvement in the fight against corruption, which have different viewpoints of what being active against corruption means. On the one hand, there are the motivations, beliefs, and acts of engagement of concerned citizens from their personal life experiences and specific situations. On the other hand, there are the motivations, beliefs, and acts of engagement of civil society organisations, activist groups, and grassroots collectives that fight corruption from a collective viewpoint. The ability to listen to each other and, through that, develop

a shared language about anti-corruption seems to be a viable strategy to face such a challenge.

These three aspects point to valuable lines of research that should be further explored to better understand the potential of ACTs and their consequences for anti-corruption activists, civil society organisations, and social movements alike. But also, these lines of research would allow for appreciating ACTs' effects on the overall anti-corruption sector and the more general understanding that activists and citizens have of democracy, its institutions and the related practices of participation in the polity. However, there is yet another aspect to be considered, which emerges at the intersection of the symbolic, material, and social elements of ACTs. This is the challenge of becoming durable, in the medium and long term, of ACTs themselves. Across the world, indeed, there are a wide array of ACTs that continue to exist online although they are not really operative anymore: while at first sight it hence might seem that ACTs that counter corruption are numerous worldwide, as a matter of fact, those that are able to survive across the years number only a handful. The achievement of durability, in this context, touches upon three different aspects. A first relevant feature is the ability of ACTs to be used on an ongoing basis by the users for whom they are designed, often citizens who are asked to take action themselves to fight corruption, as well as to keep involved those social actors that should maintain the ACTs' activity over time, like for instance its original creators. Moreover, durability also means the ability of ACTs to remain functioning, from a technological point of view, even beyond the moment immediately following their creation. Finally, by durability it is meant the ability of ACTs to continue to produce information and, ultimately, meaning in relation to corruption and anti-corruption through their use. These three aspects of durability, as can be guessed, are each related to one of the elements we find in ACTs. They are, in short, the ability to continue to do three basic things: to engage its creators and users, and here we refer to the social elements of ACTs; to function properly, and here we refer to the material elements of ACTs; and to produce knowledge and meaning in relation to corruption and anti-corruption, and here we refer to the symbolic elements of ACTs.

Interestingly, these three aspects are deeply tied to each other. For instance, when social actors decide not to invest any further in ACTs, usually there are also difficulties in keeping the ACTs up and running. At the same time, when an ACT stops working properly for technical reasons, users might distance themselves from it and stop contributing to it. This disengagement might also occur in those cases in which ACTs stop producing knowledge that resonates with concerned citizens and other types of social actors. Furthermore, the malfunctioning of the ACTs at the technical level can also create serious problems in their ability to continue to bring forward relevant, informative data about corruption. In a nutshell, these three aspects of durability often go hand in hand

and, as such, ACTs' designers and developers should curate the three of them in parallel, devoting the same attention to each. This is because, as I stressed in the introduction, ACTs are not mere digital technologies in the hands of activists, but more complex socio-technical assemblages in which different types of elements mutually shape each other.

A telling example of the relevance of such entanglements is the anti-corruption initiative IPAB, developed in India and discussed at length in Chapter 5 of this volume. Despite the fact that the online crowdsourcing platform was able to engage a number of citizens, obtained international recognition in the anti-corruption sector, and also started to be replicated in other countries across the world, a few years after its creation the civil society organisation that created it decided to focus its attention towards other initiatives, not linked to corruption in a direct manner. The web-based anti-corruption initiative was therefore somehow dismissed, despite still being online and apparently functioning. In other words, it did not prove to be durable. The trigger, in this case, seemed to be the disinvestment of the civil society organisation that initially invented the web-based crowdsourcing anti-corruption initiative: it decided to focus on other issues altogether, hence putting aside its initial project despite its recognition within and outside the country. Such a change at the level of the social elements involved in the ACTs brought with it the malfunctioning of the crowdsourcing website around which the initiative revolves: not being moderated anymore, it became full of messages unrelated to bribe payments in public offices. In short, the material elements in the ACTs are also creating some issues concerning durability, because the technological core of IPAB is not properly maintained. This also has repercussions at the level of the symbolic elements of the ACTs in question, since the contents published, again without moderation, in the website create a lot of noise and obfuscate the still present information about corruption, making the production of knowledge about the issue at stake difficult, to say the least. In short, there is an entanglement of the social, material, and symbolic elements in ACTs that undermines the very basis of the durability of IPAB.

That said, the case of IPAB also adds another relevant layer to understanding the issue of the durability of ACTs, which is more related to the country contexts in which they emerge. In this case, the overall context of India certainly did not help in keeping the civil society organisation's focus on anti-corruption: indeed, the reason why the civil society organisation decided to dismiss IPAB is also to be found in the change of its political agenda in connections with more restrictive rules for the activities of civil society organisations, the shrinking of spaces for contentious grassroots participation, and the strong politicisation of the issue of corruption in the country. The civil society organisation hence decided to focus on the broader, and more politically neutral, issue of civic participation with the development of other

types of digital platforms. ACTs, as socio-technical assemblages which make interventions in the realm of politics, might indeed be heavily affected by the overall political context in which they develop. And this is yet another reason why they cannot be considered as simple, and neutral, tools in the hands of anti-corruption activists. The relevance of the situations and contexts in which ACTs develop, is to be taken into serious consideration to assess not only their durability but their longer-term outcomes in the effective reduction of corruption.

Indeed, while the digitalisation of anti-corruption from the grassroots is a process that looks set to last, there are also some points of attention to consider. Some scholars suggest a more cautious approach to the role of digital media to fight corruption: instead of facilitating collective action against corruption, the presence of high transparency in highly corrupt countries might lead to a more widespread resignation among citizens, who will decide not to mobilise to address the social problem (Zinnbauer, 2015; Bauhr & Grimes, 2014). Furthermore, there is the risk of excluding the most vulnerable parts of the population who lack the access or the literacy to employ digital media, creating asymmetries in citizens' participation in social accountability mechanisms (Grönlund, 2010). Additionally, the use of digital media alone might not be enough: desk research on digital media employed in top-down initiatives to curb corruption across the world shows that administrative reforms are also needed to render digital media effective (ibidem). Other works that deal with accountability mechanisms beyond social accountability, similarly suggest more cautious interpretations of the potential that digital media has in supporting social accountability. For instance, a study on water delivery supplies in rural Africa, Asia, and Latin America underlined the cultural aspects, like citizens' lack of confidence that governments would respond to their demands, but also the way in which digital media platforms are conceived and designed and why this might be decisive (Welle et al., 2016). Another investigation on initiatives to improve health systems and services in Africa and Asia claims that digital media does not work in promoting accountability if not supported by other offline actions, like developing positive relationships with governmental institutions (Hrynick & Waldman, 2017).

Taken together, these studies hence suggest that the issue of durability should be connected with the broader social, cultural, and political context, also taking into consideration specific situations that some parts of the population might leave related to their ability to engage with digital media. Furthermore, Chapter 11 in this volume also suggests yet another crucial context that should be taken into serious consideration, especially considering AI-based ACTs: the legal one. Indeed, another relevant aspect that would be able to determine both the possibility of existence, and also the durability of ACTs which are heavily based on the use of AI-based applications, is the related legal framework at

the national and transnational level, which is often unclear when not lacking. This often prevents access to the relevant data in a timely manner, but also has consequences for how the detection of potential corrupt behaviours might then be exposed by AI-based ACTs and for what happens next, once corruption is exposed. Overall, such insights are in line and support further the idea that for ACTs to have an impact on corruption, there should be a proper match between the digital media and technologies used in ACTs and the context in which anti-corruption practitioners design, develop, and employ them (see Adam & Fazekas, 2021).

Beyond this general understanding of durability and the warnings that come with it, there are some more specific aspects that depend on the type of ACTs at stake. When ACTs support the organisation of mobilisation, the resulting protests might not be able to become more stable efforts and transform the dispersed and fragmented protest participants into more cohesive movement organisations, which can, hence, become recognised actors in the arena of institutional politics. When activists and civil society organisations instead employ ACTs to expose corruption, hence monitoring, the risk is not being able to curate the data over long stretches of time. Finally, when activists use ACTs to foster the active participation of people in the polity and towards the political process, there is always the risk that deliberation becomes a too long and time consuming process, where rational arguments are not able to prevail. Or, when the participatory process is successful, then no one in the arena of institutional politics is there to listen and embrace the changes that people asked for.

Finally, the feature of durability should be considered in connection with the passing of time: many of the chapters in this volume show that in ACTs the combination of material, symbolic, and social elements is not static and rather their configuration, and the way in which one type of element reshapes the other, might change as the ACTs evolve. Indeed, ACTs are constantly changing because they are developed to be used and when this actually happens, and social actors start interacting with the material elements of ACTs, they quite obviously transform themselves. When designing and then creating ACTs, such possibility of change should be taken into serious consideration as well as the fact that ACTs are always in a dynamic state. Their fate is not given once and for all, and it is up to their designers, developers, and users to take care of them in the medium and long term. This is a relevant challenge that civil society actors who are active in the anti-corruption sector should take into serious consideration so that ACTs might last across time despite their changed configurations of material, social, and symbolic elements.

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