Commoning the City, from Data to Physical Space: Evidence from Two Case Studies

Usion forging is the practice of harvesting etibles from plants and trees mostly in urban settings. Coved-sourced colline mapping such as the Berlin based grassroots initiative Mundruh provides an entry door for anyone, making the locating process easier. It chains over 40 000 registered users Germany vide. In Brooklyn, New York, the grassroots organization 596 Acress relatively, remixed, and opened to the erood data about vacant lots through the Living Lets Map[1]. By deveryb bringing that information directly in the physical urban space and activating local communities 596 Acress activists managed to spar the creation of 36 community spaces on previously vacant platic land.

vocuments junces to previous y name you can uncertainty appears that y limit net one phenomenon: commoning the city. Commoning is understood as the co production of new common or the process by which existing resources (public or private) are reclaimed as commons: this is to say urban resources managed by groups of ears: in the absence of prevention management management and without privatation of the resource (Dictabendup of *ed.*, 2015, Stotet, 2011). In the cases we propose, data about the urban space is being collaborarisely produced or reclaimed and crimed and efficient on a second sequence of a second sequence of paties in the absence of prevention of the process by which existing resources (public or reclaimed and crimed and efficient on a second sequence of a second sequence of paties (management of the absence of paties) in the absence of city and as a second sequence of the process by which existing resources (public or reclaimed and efficient on a second sequence of the absence of the paties (management of the absence of paties) in the existing and as a second sequence of the second sequence of the absence of the paties (management of the absence of the paties). The absence of the paties (management of the absence of the absence of the paties) and absence of the absence of the absence of the paties (management of the absence) of the second second as a second sequence of the paties (management of the second second dimensis) in paties (management of the second second dimens is parti

an energy appear to many power of semicondex and the set of the semicondex and the set of the semicondex and the set of t

With this context, we attempt to situate the analysis of a hybrid urban commoning process involving tangible and intangible resources in an academic landscape that has theorized the emergence of urban commoning (arban commoning) as a fundamental transformation in the way we think urban governance (Dellenhaugh *et al.*, 2015; Footer and Jianoz, 2015). In terms of methods, we turn to the landiturbant Analysis and Development framework (UD) as it has proved to be well associated for approaching the governance of both, although separately, antural (i.e. tangible) and knowledge (i.e. intangible) resources (Heas and Development framework (UD) as it has proved to be well associated for approaching the governance of both, although separately, antural (i.e. tangible) and knowledge (i.e. intangible) resources (Heas and Development framework (UD) are phases on the rots glueged by infrartistering methods and (I.g. UD) explasions on the rots glueged by infrartistering methods.

Theory

From urban commons to commoning the city

While it originates in the study of the organization of state services in American metropolitan regions (Ostrom, 2010), very lintle work has applied the IAD framework to urban resources (Mincey *et al.*, 2013). Explorative work has confirmed the relevance of using the IAD to analyse urban solid waste as an urban co (Pires Negriso, 2014), Similarly, the framework is seen as suitable for analyzing the governance of urban forests and understanding why individuals and their collective associations add or remove trees (Mincey *et al.*, 2013).

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agreements for cooperative management of public resources are hundred in lines in order to prevent risks of sourchands, a process where commons industrians or and become takes and rapid the base of a changing environment (bytes), 2011, pp. 130–122. Mandial of dots multiplication have thematication commons in the than sourcests are alternative to budgetay anatority (Stell Carnet), 2011, pp. 201–202. The line strained (Stell Carnet) have the second commons in the than sourcest are hundred by their a sparanosts innovation changed the finction and alternity. 2013 (Stell Carnet), 2011, pp. 201-201. The line strained (Stell Carnet) have the strained for the prevent risk of a sparanost innovation changed the finction and alternity. 2013 (Stell Carnet), 2011, 2012 (Stell Carnet), 2013 (Stell Carnet), 2013 (Stell Carnet), 2013 (Stell Carnet), 2013 (Stell Carnet), 2014 (Stell Carnet),

Knowledge commons

The IAD framework has been vastly used to understand the collective governance of natural common-pool resources - a specific sort of commons - from forests and fisheries to irrigation systems (Datrom, 1990). More recently, its use has also been successfully extended to intangible commons such as open-source software (Schweik and English, 2013), online creation communities (Fuster Morell, 2014), or genomic data (van Overwalle, 2014). Indeed as Christine Hess and Elinor Ostrom hernell argued:

(The HD) framework seems well wind for multistic of resources where new technologies are developing at an extremely regul pore. New information technologies have been dedined howerd by any discover and inform providers, have made to devolve many of the existing norm, mixed, and hower and more thange is occurring at every tree of the howerdeed commons. Heat and hower any of the existing norm, mixed at a flow more thank on a conserve. Institutional during to courting at every tree of the howerdeed commons. Heat and hower any of the existing norm, mixed at a flow more thank on a conserve. Institutional during to courting at every tree of the howerdeed commons. Heat and hower any of the existing norm, mixed at a flow more thank on a conserve. Institutional during to courting at every tree of the howerdeed commons. Heat and hower any of the existing norm, mixed and hower any of the howerdeed commons. Heat and howerdeed the howerdeed commons. Heat and howerdeed howerdeed the howerdeed commons. Heat and howerdeed howerdeed the howerdeed howerdeed

The most prominent adaptation of the IAD to knowledge/information commons is to be credited to Madison, Frischamma et al. (Madison, Frischamma and Strandburg, 2010). They define constructed commons in the cultural environment – in contrast to the natural environment for developing and distributing cultural and scientific knowledge farmagh institutions that support providing and sharing that knowledge in a managed way" (Madison, Frischamma and Strandburg, 2010). They define constructed commons in the cultural environment – as "environments for developing and distributing that knowledge in a managed way" (Madison, Frischamma and Strandburg, 2010, p. 659). In a more recent definition, Frischama, Madison et al. (2014, p. 3) adopt the terminology "Knowledge common" defined as "information, recience, knowledge, data, and other types of intellectual and cultural resources." In this article, in order to avoid confinsion we use prefer to speak of a commoning process to describe this community governance and resource as it is often the custure (Hess and Ottorn, 2007, p. 3).

[FIGURE1]

Figure 1 The knowledge commons framework by Frischmann, Madison et al. (2014)

Figure 1 The knowledge commons framework by Friedmann, Mation et al. (2014) In the present study, we nere or own adjustation of the LO adjusted from the framework for knowledge commons in its has version by Friedmann, Mations et al. (2014). Yet, an apparent difficulty in applying to are hybrid cases characterized by the presence of both a tangble resources. In the fact that the closes framework has been adjusted through two main medications specifically for intragible resources. These medifications and to be facilled, On the community, this granteed and through versions and medications specifically for intragible resources. These medifications and to be facilled, On the community, this granteed and through versions and mediated through versions. The facility of the intragible resources has not been adjusted for the version developed and through versions. The medifications model to be facilled, On the community, this granteed and through versions. The medifications are constructed to the version version statement of the community of the present and through versions. The medification is the version developed and through versions and developed and through versions. The version developed and through versions are developed and present and excited as present and excited by arrows thereas developed and excited by arrows thereas developed and excited by arrows thereas excitentes and and as a present and excited by arrows thereas excitentes are developed as present and excited by arrow terms and as a present and excited by arrows thereas excitentes are developed as pre

At this stage, it is important to make an addition to be framework developed by Frischmann, Madione et al. (2014), Indeed, they pay little attention to the issue of provision of an online collaborative infrastructure in enabling digital co-production (Schweik and English, 2013, p. 238). Emphasizing this aspect, Fixet Morell (2014) argues that infrastructure provision (far our case studies, the provision of a online mapping platform) is not neutral for online creation communities and should therefore be integrated as part of the governance process and net in resource characteristics as in Schweik and English, 2013). This provides a thoretical areame for extending our understanding of the provision of a panticipation infrastructure byood the digital reach tacking into account the classing into account the classing into account the classing the distribution transformation on the space (Fiver, 2011). As a result we propose in Table 1 an adapted framework for bybrid unhan commoning processes that combines an intangible resource with a tangble one. It is a condensed version of a mapping transmitter presentative research questions proposed by Firickmann, Madison et al. (2014) completed with Finance Morell's (2014) framework for bybrid unhan commoning processes that combines an intangible resource with a tangble one. It is a condensed version of the first week and the space (Firick 2014) framework for bybrid unhan commoning processes that combines an intangible resource with a tangble one. It is a condensed version of the first week as a condensed version of the first week as a condensed version of the first week as a condensed version. Table 1. Proposed framework for hybrid urban commons. Adapted from (Frischmann, Madison and Strandburg, 2014)

[TABLE 1]

Research questions

ticle we use the IAD in its refined version by Fritchmann, Madison et al. (2014) and structure our results along their representative research questions (Table 1) in order to clucidate the main intercopation. How does the hybrid commoning process of (1) data and the related (2) public space take place? In part to understand the role of the participation infrastructure providers (mainly the grassoots initiative) in the creation of a scoremanni of your dust is both a pattern of interaction in and an outcome of the commoning process. This main research questions is further detailed through the so-called representative re-is Table 1. Eventually, this line of investigations is pattern processes - to evaluate the commoning of hybrid undigative therefore, and the combined of hybrid undigative therefore, and the combined of hybrid undigative theorem of the commoning of hybrid undigative theorem of the technologies.

Materials and methods

The data was collected between 2014 and the beginning of 2017. We rely on a limited number of semi-directed interviews with the founding members of each initiative, with a key executive member in each of the local administrations, and with some participants. This was completed by addition as extensive documentary research that was facilitated by the vast digital self-documentation of the initiatives, in addition, we have also used ourselves both mapping platforms to gain first-hand knowledge of the online collaborative process and could observe the way they evolved over

The LAD has been designed as a systematic framework in order to conduct case studies of the governance of resources situated in very different institutional contexts. Is bread adaption has allowed the consolidation of empirical studies of common pool resources at the heart of the work led by Eliner Ostrom and the Workshop of Daties allowed Daties and Daties. 2010; p. 413, in addition, he LAD was designed to machematic antexts. In bread adaption has allowed the consolidation of empirical studies of common pool resources at the heart of the work led by Eliner Ostrom and the machine are bried distinged by mining heart of informations spreading information spreading information spreading informations preading information spreading information preading information preases. The constraints of information of an alternation of the case in this study. On the other hand, it is derived that common preases information of an alternation of information and preases integrated and anytore conceptual and and preases integrated and anytor conceptual and and preases integrated and anyto integrate and alternation enders and and alternation enders in the case in this study. On the other hand, it is determined in the presented has researcher prefer to focus on successful examples and because failures may result in non-action and be individual cases present bianes, in particular towards success stores. Indeed, account of failures of commons governance are probably underspresented as researchers prefer to focus on successful examples and because failures may result in non-action and be hard to because failures on the store in the case in this.

(process), and control of the start of the two case studies presented are not in any way representative of maintenam practice. On the contrary, their documentation is itself as at that is not neutral. In line with the 'diverse economica' research agonda and beyond a panely positivity position we understand tech as a performative actions by documenting alternative and emergent precisions (a. the synergivic commoning of data and them pable space) we hope to involve the integration of the single faster as a diverse documenting alternative and emergent precisions (a. the synergivic commoning of data and them pable space) we hope to involve the single faster as a diverse document to a sufficient and the single document tech as a performance as a gradient document tech as gradient document tech as a gradient document tech as a gradient document tech as a gradient tech as a gradient document tech as a gradient document tech as a gradient document tech as a gradient tech as a gradient document tech as In this study we transparently acknowledge the fact that the two research as a performative action: by documenting alternative a

Results

Mundraub in Berlin

Background

We used in the standard of public space are maintained by boroughs administrations and theoretically accessible to the public upon request ("we have no scrett to hide" asys a Berlin administration executive[3]), they are in practice and historically not freely accessible. The reasons advanced by public actors maps from liability issues, ecconomic argumentation, to technical difficulty: "goe are instantically on the proper software" says the same personal[4]. The status goe in the physical space is that citizens are supposed to file a request to their borough's administrations and theoretically goe public trees while pruning remains the exclusive domain of multiplications for for any accessible to the borough's administrations seem to show so particular concern about it. There is regulatory dipage. Generally finate trees while pruning remains the exclusive domain of multiplications to harvest fruits and borough's administrations seem to show so particular concern about it. There is regulatory dipage. Generally, finit

Goals and objectives

Mandramb started in Berlin in 2009 from an individual initiative. It is the digital dimension – the crowd-sourcing of data about growing edibles – that really gave to urban foraging in Germany a renewed visibility – though apple picking for jaice cold-pressing is a relatively common practice of the motivation of co-producing a data commons in the form of a collaborative map is to make the practice of urban foraging more visible, to enable people "to discover the secret finits in public space and [eventually] to collectively shape the edible landcage. Or hadron the outparts, it is seen by the Mandraho finitiative as a constitutive tool of one wider process of public a-appropriation. One central dilemma arising is to re-collective acids manufactual process of a berlin urban forager: practice i date). The ility and spark

"I would be worried to add [on the map] trees growing in the neighborhood. Trees with some tasty fruits, and I add them and they are immediately fully harvested. [...] I also think there should be something left for birds and so on. I am not sure that people share this kind of notion."[5]

Historically, trees and greenery in cities are only valued for their assthetic value, and managed accordingly, top-down by the municipal administration. The narrative proposed by Mandraub is to bring awareness to citizens about urban nature by re-conceptualizing it as an edible resource they can directly get engaged with through harvesting, care and finther planting.

Resources

However, the respective commoning of data and the related physical urban space are facing different types of challenges due to the different nature of the resources in queetion: unrival and intangible for data, and rival and tangible for data, and trival has damply being added as a result of the advecces of Mandraha and its waiter community to goal can also constructive growing with people adding new points, resivening existing ones. Since 2016, manicipal data is also doney being added as a result of the advecces of Mandraha and its waiter community to keep data and provide trave data. The initiative constructing the initiative construction growing with people adding new points, see development of the advection on the provide set of the advecces of Mandraha and Its waiter community to keep data and provide by the Mandraha and its more. The development and antimisence of this collaboration: and provide provide by the Mandraha and its results. Constructing the maje that and constructive provide by the Mandraha and its constructive may its advective provide provide provide by the Mandraha and the provide provide provide provide by the Mandraha and the provide provi

Community members

at all (1) to sepalyces) of the Mandranb initiative is employed formally by the non-profit enterprise (gUG in German) Terra Concordia. In Jays a key role as infrastructure provider maintaining and developing the online portal built around the map. This staff also dedicates a considerable amount of its t ing across Germany with municipations and clutters in propagating the practice of urban foraging and in local acceptance among local governments. Anyone can independent on the map. This staff also dedicates a considerable amount of its t flocations provides. So for evel 3000 people, how trajectored main to map. This staff also dedicates a considerable amount of its t flocations provides. So for evel 3000 people, how trajectored main to map, and visitons need to register to contribute to a or to flocations provides. The row exploration people is the register demands on the row trajectored and the register. This staff also dedicates a considerable amount of a statistical flocations provides and the register demands and the map. This staff also dedicates a considerable amount of a statistical flocations provides and the register demands and the map. This staff also dedicates a considerable amount of a statistic flocations provides and the register demands and the register demands and the register demands and a statistic and the register demands and a statistic and the register demands and a statistic demands and a statistic and the register demands and a statistic and the register demands and and the register demands and the register demands and and the register demands and the register demands and a statistic and the register demands and the register demands and the register demand and the register demands a The small staff (3 to 5 employ engaging across Germany with

Governance

Governments
Government

Patterns and outcomes

Further and outcomesting are an unmatched knowledge resource about growing edibles in public space across Germany and in particular in Berlin. Through in map, it is an alternative (visual) representation of the urban hardscape as an edible space that is communicated. The map also draws attention to related events which may result in faces to face encounters. The cost of meth a commonic line in providing the infrastructure (pogramming hours, were hours, avery hours), and the symptement of the urban hardscape as an edible space that is communicated. The map also draws attention to related events which may result in faces to face encounters. The cost of meth a common in the infrastructure (pogramming hours, were hours, avery hours), and and the farm municipatities would spin take that the physical resource, the level of interaction, calls avariation of the urban hardscape in the durg is graves. The second participation is a strapents on the commoning of the physical resource, the level of interaction (all is variation of the urban verter as delta part form hardscape while heuring is anoted of the strapest and is is straing be called aparts for all exists of vertex events of each heuring would be at the the they participation and is avariant of the community facilitation. A vertex hours in the community facilitation is explained by a vertex betweet the vertex while and hards are been about the vertex while the level of the interaction and the matching the matching of the matching the resource is formulated by the second term in the existent in events and and the second term in the event would and at the the first hype, and that resources is formulated by the second term in the first constant is existent of the vertex and a strate in event and a visc at infinite second term in the event matching in terms for the taxes in the first participation and the second terms in the resonance and provide second term in the resonance and provides matching the respecting the instant. The map also draw second term in the resonanc

596 Acres in New York City

Background

The first set of the s

Goals and objectives

The main goal of the 596 Acres initiative is to promote community hand access in under privileged neighborhood by reclaiming vacuat land. To realize that vision, an intermediary objective has been the development and maintenance of a comprehensive database of vacuat land including information about ownership in the form of a participative may. Living Lots Map. – where people can ge in boods which each other and get organized. The dilemma is to ensure the comprehensiveness and 'frachness' of data, but also its transitioni into accessible information that is not accessable information into a cossible information that is not accessable information about ownership in the when this endowed data is transitionized in the interaction of a probability in the distribution into accessible information of applicable that is not accessable information of applicable and accissable in the one pole early of the accessible information of a probability in this a functioning and sustainable community space (find a community graded). Dereall, the anarative of 596 Acres is that collective access to had "parts bottom and percleptioned that community appect (find a community graded). Dereall, the anarative of 596 Acres is that collective access to had "parts bottom and percleptioned that community appect (find a community graded). Dereall, the anarative of 596 Acres is that collective.

Resources

The data resource is intragible and unrival. It is derived from open data, completed by the 596 Acres staff and enriched by the crowd when it is networking online. The online participation infrastructure is provided by 596 Acres in the form of a collaborative map designed to enable direct context between users who only need basic dipal literacy. The provision of this infrastructure requires programming skills brough by one of the three members of staff. On the physical level, warm hand is a legacy resource, tangible and invital. Land value is neckening in recent years being highly covered for private real estate development, but also for diretable literacy context between too may being development from NYC Department of Homing. Ganing access to a vacant lot requires understanding of municipal rules and procedures. For successfully organizing a community space (such as an open garden) good scial and organizing skills are required. On both those fronts, citizens can find support with 596 Acres.

Community members

Online, users of the Living Lots map can review data and interact with each other around a given tot – 1882 had done so as of April 2017. Those charts are visible to any online visitor. 596 Acree' staff provides the online participative mapping platform, curates open data from various data sets (including updates), and facilitates online participation. The staff also and foremous activates and aupports visioning are willing to setup and set of egazine a community around 596 Acree's in challengeable. Thus in the words of one of the founder "I think this is much more of a network than availing use do try to feed poole inclusing communities. There is community grades community around 596 Acree's including and the set of the founder "I think this is much more of a network than availing use do try to feed poole inclusing communities. There is community grades community around 596 Acree's the staff also and the set of the founder "I think this is much more of a network than availing and the inclusing community grades community around 596 Acree's the staff and the set of the founder "I think this is much more of a network than availing the inclusing community grades community around 596 Acree's the staff and the set of the founder "I think this is much more of a network than availing the obscingting community grades community around 596 Acree's the staff and the set of the founder "I think this is much more of a network than availing the obscingting community grades community around 596 Acree's the set of the founder "I think this is much more of a network than availing the obscingting community around 596 Acree's the set of the founder "I think this is much more of a network than availing the containing community and community the set of the set of the founder and the set of the founder and the set of the set of

On existing community spaces under agreement with the Department of Parks and Recreation (DPR) – this is the case of most cor group is free to restrict and regulate access to the space it manages. anity gardens - access to the public such as non-participating neighbors is guaranteed for a minimum of 20 hours a week during the warm season. Beyond this

Governance

The local community does not participate in the development process itself of the participation platform and, as a matter of fact, there is reportedly no demand for it. Nonetheless, the code of the platform is open source, available on a public repository, understood as a commons and has been replicated in other cities the participation of 59% Acress. User, more flags and the composition of a component in the code of the platform is open source, available on a public repository, understood as a commons and has been replicated in other cities the participation of 59% Acress. User, more flags and the composition of a component in the code of the platform is open source, available on a public repository. User, more flag in regular entries, but in the code of the power to entries according to the website Terms of Use. Online, the focus of the available on a dual tast was at the beginning not open. It have displated to the meshing of the initial data, sets with additional ones and their translation of data into a simple and actionable information avail directly on various data sets, the Living Los Map data is standly post lectured.

directly on vocant picces of land reacking aciphors, when an online map would likely mix. All in all tactual coved-sourcing of data is low and because it is the result of the combinitiantion of various data, sets, the Living Lots Map data is actually not listened. Oddata, there foci of a higger action areas can be observed. One is around the process of a critizen' group paining rights to use a vacant lot and formalize the number an agreement with the concerned municipal dapartment. The had can iterate be accurate the transfer of the and lot formalize the process of a critizen' group paining rights to use a vacant lot and formalize the number an agreement with the concerned municipal dapartment of the process of a critizen' group paining rights to use a vacant lot and formalize the number an agreement with the DNR, transfer of the and lot formation of the land lot formation of the process of a critizen' group paining rights to use exceed to a grantice of the land lot formation of the land lot formation regular to the DNR to be preserve in critican's criticent that cass interess advecaves, lask place and it agreement age compared have to describe of the lob place to be described of the done hol for done right pains regular agreement, to halling advecture. That cass interess advecture that the low regular divers of the done hold regular planting random vectors that regular and the process the management with the DNR, respectively in advecture that the low regular agreement with the DNR, respectively regular agreement. See that the regular random regular agreement with the DNR respectively advector with the DNR respectively regular agreement with the DNR respectively regular agreement agreement with the DNR respectively regular agreement. See that agreement agreement with the DNR respectively regular agreement agreement. There were the management of over 500 community grates across the city without taking part in their governa

Patterns and outcomes

The commoning of data about vacant hard ownership in the form of a map resulted in a comprehensive and open information resource where before there was only an expensive database used by those who could afford it. This is very valuable for citzens in need of such information and also bapefield active anighness to meet each other to enter the commoning of vacant hand. But, it is really the forstoot of 996 Acces based on in treasure trove of information and also bapefield active anighness to meet each other to be submer neighbors on meet and open information and also bapefield active anighness to meet and open information and also bapefield active anighness to meet and open information and also bapefield active anighness to meet and open information and also bapefield active anighness to meet and open information and also bapefield active anighness to meet and open information and also bapefield active anighness to meet and open information and even sometimes for a submer neighbor on meet and open information and meet and and bapefield active anighness to meet and open information and meet and and the set and open information and also bapefield active anight and meet and and back and the resource of the source of the part of the source of the s rce of fresh food - though i

Considering the relevance of the IAD

Constructing uncertainty of a data/information resources made available through a mapping interface is only a tool for the commoning of the physical urban space. It is important to note that both local initiatives are not putting emphasis in involving their community in the governance of the intragible resource (data and platform). In fact, engapting proople in making use of the platform and data, contributing to it and coverring that online interaction in the physical urban space. At in important to note that both local initiatives are not putting emphasis in involving their community in the governance of the intragible resource (data and platform). In fact, engapting proople in making use of the platform and data, contributing to its and coverreting that online interaction in the physical urban space. At in other works, building a community of participants, concertance and effect for the posticipant) access (the specific topests users) in access strategic on where only the initiatives as egnitations (or the participant) access strategic on the proteing platform). In fact, the approximation the specific topests users of the specific topest users and the specific topest users of the specific topests users of the specific topests users of the specific topest users of the specific top

In both cases, the commoning process is accompanied by manicipal administrations that react positively to greater involvement of citizens, whiching from direct management to an enabling role (Foster, 2011) cutionsly in Berlin, with a long track record in New York "With increasing participation of the public, the role of city administrations in charge of public land is changing from being simple managers of streets and park to becoming more facilitators, coordinators." An administration leader in Berlin[12].

We want bruke zure throug partners are studie. But work intervence in any decision making, we provide them with resplaces sometimes [...] They can be intervally. They decide their own rates [...] What we ack them is to have b j-kess or some guidelines, regulations on how they manage the guident_______. To obscirate, which there are conflict to which is able to be some by existing the state and the state is a strategies of the state and the state is able to be some by the state and the state is a strategies of the state and the s

This dimension that seems central to our two cases - the public urban space being traditionally highly regulated - is marginal in the IAD framework adaptation we relied on (Frischmann, Madison and Strandburg, 2014). Yet, under the category provision of a participation infrastructure, it appears in our results: onland, when the local state lets people use public space in unplanned ways; colline, when it releases results/open data.

Discussion

From regulatory slippage to the collaborative state

Forter explains the emergence of common dilemmas (*i.e.*, the commoning of urban resources) by regulatory ulprage resulting in an absence of government management (Foster, 2011). While partly confirming this hypothesis, our results have shown that commoning may also emerge as the result of strategic intervention (*i.e.*, providing actionable information about a tangble resource) that redefine the nature of urban resources that were less subject to receding public management. (Hoster, 2011). While partly confirming this hypothesis, our results have shown that commoning may also emerge as the result of strategic intervention (*i.e.*, providing actionable information about a tangble resource) that redefine the nature of urban resources that were less subject to receding public management. (Hoster, 2011). This has been shown with the soable examples of subject of commoning provides (*i.e.*) approve into a new urban common: free laterate access. Generally, the local state may play a critical to ite (*i.e.*) articulation of public management of the complexity of the state access. The state access is shown in other critics such as Bolgen (Foster ad lations, 2015). This has been shown in other critics such as Bolgen (Foster ad lations, 2015). This has a local emanation of the collaborative state (Foster ad lations, 2015) may be explained by two pleasement encoursed in our pleasement encourses in shown in other critics such as Bolgen (Foster ad lations, 2015). This has a local emanation of the collaborative state (Foster ad lations, 2015) may be explained by two pleasement encourses in the strategic intervention of the collaborative state (Foster ad lations, 2015) may be explained by two pleasement encourses in shown in other critics such as Bolgen (Foster ad lations, 2015) may be explained by two pleasement encourses in shown in the collaborative state and the state (Foster ad lations, 2015) may be explained by two pleasement encourses in shown in the collaborative state and the collaborative state (Foster ad lations participati

Commoning as response to austerity urban policies

In New York City the fiscal crisis of the 1970s let vast amounts of land vacuat where planned public and private developments were abandoned. This led to a strong development of community gardening encouraged by the city through its posyram Green Thumb as a way to avoid the multiplication of waste land in the city and maintaining if not further improving gaulity of life. In Berlin, a cabe strapped local administratice overwhelmed by the existing management duties webcance(while strapping careful) the involvement of citatres in planting as well an animating eddet texes improving the quality of the text improving the quality of the first strapping careful by ite existing management duties webcance(while strapping careful be involvement of animation strapping careful be involvement of citatres in planting as well as maintaine eddet texes improving the quality of he areas may to a provide the involvement of a strapping careful by ite existing as a strapping careful be involvement of animation of a strapping careful be involvement of a strapping careful be involvement of animation of a strapping careful be involvement of animation of a strapping careful be involvement of animation of a strapping careful be involvement of a strapping

Data commoning as a trigger

Confirming the idea that data makes government more proven (Bollier, 2016, p. 16), our results have down exactly that: when data is available and made actionable for the lay citizen, it may function as a trigger for commoning practices that do not fit is traditional government categories. Based on our results, the further function of the strategories and the practices that do not fit is traditional government categories. Based on our results, the further functional control of the practices of the strategories and the practices and the practices and the practices and the practices that do not fit is traditional government categories. Based on our results, the further strategories and the data is available for the lay citizen is required the categories of non-state action (gravaroot organizations, backers, social/civic enterpracement) that have the data available for the lay citizen is required the categories of non-state action (gravaroot organizations, backers, social/civic enterpracement) that have the data available for the lay citizen is required the categories and the categories of non-state action (gravaroot organizations, backers, social/civic enterpracement) that have the data and practices and the practices. Most increasingly appears as powerful and participation condition makes ensored data within the urban space as aboven in the premoting area aboven in the premoting and aboven in the premoting interpraces. Mass increasingly appears as powerful and participation conditions in the strate data and aboven in the premoting initiatives ways to embrace the power, flexibility of the informal economy" (Moller, ZiO, p. 1).

Departing from a naturalist conception of the commons

Over origing (robust in track that's constrained in the constrained in the digital from the offline, (2) it reads to anticipate of the log in a from the offline, (2) it reads to an organic and multidirectional reality into a linear process, and (3) it is ebilyious to the challenge of building a local self-statiating community. Such concerns find resonance in the literature on commoning and that an common set. The interactive on the multi-alternative on the material atom the interactive on a multi-alternative on the material tand the interactive on the material atom the interactive on the material

This is not just a thetrical argument. For one years now, data is been described by scholars, business and policy leaders as "the new oil" and is systematically framed as a resource in mainstream discourse[17]. Conceptually separating data from the varions realities (physical, social, etc.) in which it is embedded is largely performative of a narrow mechanisal vision of the urban (concom). To hat cettant, we are fully aware of the contradiction of using the IAD framework while we and/ored the motivation of the present research in documenting the adversaries of and the contradiction of using the IAD framework that shows we address the horizont of the hard to contact stage and a systematical period main systematical by ensurements and the origin of the shorts (concom). To hat cettant, we are fully aware of the contradiction of using the IAD framework that shows we address the hand, its egistemotogical intercentions). In the context, we are present with a single adversaries to incommoning the previous ensurement in the previous ensurement and the stage of the contradiction of the using contention intervent that shorts work documenting the previous ensurement in the previous ensurement in the previous ensurement in the context or agare, that short work documenting the previous ensurement in the previous ensurement in the context or agare, that short work document intervent ensurement is the resource of the low of a distance or advectariation of the low and existence or advectariation of the low and low advectariation or advectariation of the low and low advectariation or advectariation of the low and low advectariation or advectariation or advectariation or advectariation or ad

age (1977) to capture the principles and inner dynamics of self-organization that are left unaddressed by the IAD framewor oposes to generate knowledge in a format that is comprehensible by lay people, by the h is all the more con

d on 07/12/2016 [2] We have not found other occurrences of this neologism to convey that very nuance. However "onland" has already been used to oppose "a traditional classroom environment" to an online learning space (Shelley, Swartz and Cole, 2008). [3] Interview in February 2017. [4] Ibid.

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[6] Interview in June 2015. [7] Ibid. [8] Interview in February 2017. (9) Ibid. [10] https://livinglotsnyc.org/, accessed on 05/04/2017. [11] Interview in February 2017. [12] Interview in February 2017. [13] Interivew in February 2017. [14] Guifi.net in Spain counts more than 33 000 nodes. Source https://guifi.net/, accessed 12/05/2017.

[15] Freifunk in Germany counts more than 300 local con ties with some having like Freifunk Münsterland over 3000 access points. Source: https://freifunk.net/en/, ac

[16] https://smartcitizen.me/kits/ accessed on 11/05/2017.

[17] See https://medium.com/twenty-one-hundred/data-is-the-new-oil-a-ludicrous-prop sition-1d91bba4f294 (accessed on 28/04/2017) for a non-comprehensive inventory of scholars, br and policy leaders using that vo

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