Smart Ambivalences
Social Economy and Capitalist Rationalities Intersecting in the Field of Sharing

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Digital technologies increasingly have been discussed in terms of their potential to raise the quality of life and make cities more sustainable. This discussion and related political initiatives have usually been framed as attempts to create smart cities (Toli/Murtagh 2020), which have been criticized with regard to the role of capitalist interests, a bias toward technological and managerial solutions, and the problematic social, political, and ecological effects of hegemonic smart city policies (Bauriedl/Strüver 2018; Elwood/Leszczynsky 2018; Elwood 2021; Richardson 2020). While smart city imaginaries often emphasize innovations in digital technologies while neglecting social processes, some have included the idea of social innovation (Exner et al. 2018; Exner/Cepoiu/Weinzierl 2018). The term *social innovation* denotes social initiatives that respond to new societal needs. An example often cited among such innovations is sharing, which promises to offer economic opportunities, ecological benefits, and social value as a result of efficiency gains (Martin 2016). Many see sharing economies as closely connected to digital platforms, for which reason sharing platforms have become prominent examples of both the sharing as well as the platform economy in general (Sutherland/Jarrahi 2018; Bauriedl/Strüver 2020).

However, their outcomes have been discussed critically (e.g., Rong et al. 2017; Jin et al. 2018; Geissinger et al. 2019). Sharing economies denote a motley array of various types of economic organizations and strategies (Albinsson/Perera 2018) that often reproduce the rationality of capital accumulation (Scholz 2017) but also include non-capitalist practices and enterprises (such as cooperatives). Sharing economies do not necessarily use digital technologies. However, they are often understood as techno-capitalist

initiatives that digitally mediate the sharing of different resources for the sake of generating profit. This latter type of initiative, i.e., the digital sharing platform as a capitalist undertaking, exhibits a specific rationality, which is oriented toward profit maximization through wage labor or contractual arrangements between powerful corporate centers and petty producers who are put into the former's service. Uber is just one, but enigmatic, example of this type of economy. The capitalist sharing economy reproduces or even deepens social inequalities and may contribute to the growth in resource consumption that sustainability seeks to curb. It may also undermine political regulation on the urban scale, since capitalist sharing businesses operate on a global level and thus do not necessarily take into account local economic structures, social needs, or problems. Furthermore, they may disrupt local markets through exposing established enterprises to world market competition and associated pressures to reduce costs and create and be able to exploit novel business opportunities without being the subject of local regulations or a partner of local policy initiatives. However, marginalized within the mainstream of sharing economies, certain initiatives deviate from the capitalist type of economic organization (Martin 2016) either in analog or digital space. These sharing economies constitute commons (with or without digital technologies) and manage them through democratic procedures. In this sense, sharing economies also encompass food co-ops, repair cafés, or similar types of non-capitalist initiatives. Non-capitalist sharing economies are social economies (Chaves-Avila/Gallego-Bono 2020; Social Economy Europe 2021) insofar that they put social needs and ecological concerns center stage and work democratically (Birchall 2011). Members or participants freely cooperate and negotiate their different needs. Following this understanding, all social economies are sharing economies (because they share resources, such as organizational infrastructures, as well as responsibility by taking joint decisions through democratic procedures), but only some sharing economies are social economies. This helps to clarify the notion of *sharing economies*, which, by including capitalist as well as non-capitalist initiatives, conceals substantive differences within this economic field. Understood in this way, the social economy draws inspiration from the notion of solidarity economies on the one hand (Exner/Kratzwald 2021), and social entrepreneurship (Teasdale 2011) on the other. It is an attempt to build a conceptual bridge between various sorts of economic organizations that share a concern for social needs and societal challenges and that are self-managed (Fraisse et al. 2016). Consequently, we, in the following, will distinguish *social sharing economies*

from *capitalist sharing economies*, which diverge regarding rationalities, social mechanisms, and societal outcomes.

The relation of digital technologies to these two types of sharing economies differs according to the respective social and economic characteristics of the capitalist and the social sharing economy. These characteristics, rather than any inherently technical feature of technologies, shape their meaning and outcomes. This, however, does not imply that technologies, such as digital platforms that are used for sharing goods and services, are completely malleable and subordinate to social ends.

Starting from this premise, we, in the remainder of this article, will present a case study of a project on developing a new urban neighborhood as a smart city that uses digital technologies to enhance the social benefit of sharing economies. In this analysis, we will especially reflect on the intersection of capitalist and social economy rationalities and how they shape digital platform development. Finally, we will draw conclusions on how digital platform development may be shifted toward social economies.

The case of MySmartCityGraz

The Austrian city of Graz is a typical Central European medium-sized town with about 300.000 inhabitants and substantial new urban development areas. The development project SMASH – Smart Sharing Graz (2020-2023) illustrates the ambivalences and the contentious character of social economy innovations in the context of smart city projects and in view of public value through non-profit platforms. The project is financed at a 60 % rate by the Austrian Climate and Energy Fund (KLI.EN 2021) within the program Smart Cities Demo – Living Urban Innovation. KLI.EN interprets the smart city primarily as a means for sustainable development. This emphasis corresponds to KLI.EN explicitly not funding software development projects within this program. SMASH aims to strengthen and further develop social economies in which people or organizations share or exchange objects (e.g., tools, food, books, bicycles), services (e.g., tutoring, taking care of plants, pets, or flats during vacations), knowledge (e.g., for repairs), spaces (e.g., communal spaces that are part of new buildings in MySmartCityGraz) and responsibilities. For this purpose, SMASH pursues a twofold approach. First, it establishes several analog social economy initiatives at concrete physical places that are collectively organized and managed by local residents. Sec-

ond, it develops a digital social economy sharing platform that facilitates bilateral sharing and the exchange of activities among residents. Both types of actions take place in a new neighborhood called MySmartCityGraz and its surrounding areas. Social economy initiatives and the digital platform are developed together with citizens, civil society organizations, and commercial enterprises. SMASH aims at fostering eco-efficient, socially integrative, and economically smart social economies and thus attempts to integrate neighborhood support, volunteer organizations, and commercial enterprises to create effective synergies. MySmartCityGraz is established on a former industrial area that is in the process of being transformed into an urban, mixed-use district with (in the final stage) over 5.000 new residents, 2.000 new jobs, and a school campus. Residential, commercial, and office space is being developed on an area of 8.2 hectares as part of an overall concept that combines sustainable technologies, flexible mobility solutions, and renewable energies with ideas for promoting neighborhood relationships. The project consortium consists of the Regional Center of Expertise Graz-Styria (RCE) of the University of Graz, StadtLABOR, and Bravestone Information-Technology GmbH. StadtLABOR operates the on-site district management it has set up in MySmartCityGraz and maintains a dense network of stakeholders and residents in the area, while the RCE is linked with civil society groups and social economy initiatives on various scales. These stakeholder relationships are essential for the success of SMASH, together with the practical expertise of the project partners.

The development of the digital social economy platform was prepared by a survey of the sharing practices and needs of residents, supplemented by the systematization of already existing knowledge about local actors and resources as well as targeted inquiries into local organizations. Additionally, workshops with representatives from social economy initiatives served to include external expertise. These activities provided initial ideas for a SMASH Future Conference. To illustrate the possibilities of social economy initiatives, the project team developed ideas for the project area. Motivated by the Future Conference, working groups were founded for analog social economy initiatives, which intend to establish a food co-op and a repair café as physical places that are managed and organized by local residents. Such initiatives are classical examples of social economy initiatives and are also recurringly understood as sharing economies. Regarding our terminological perspective (see above), they are social sharing economies. Furthermore, SMASH started

to cooperate with activists of the local exchange trade system STYRRION, which also belongs to this type of sharing economy.

These activities aiming at establishing analog initiatives in physical space are the immediate context for the development of the digital social economy sharing platform within the project. Neither the food co-op nor the repair café is connected with the digital platform yet, and probably will not be integrated, since members of these initiatives have not voiced a need for it. In fact, the food co-op is already fully operating without any connection to the digital platform. At the moment, it seems doubtful that the platform will be able to contribute added value to the food co-op and the repair café. Usually, this type of initiative does not use digital platforms. However, the analog social economy initiatives are crucial for SMASH in political terms. They are the most concrete outcome of the project so far and, as such, embody best the project's understanding of social economies and demonstrate how social economies can be implemented in the neighborhood. In comparison, the functionality of the digital platform, which is important to SMASH's central goal to strengthen social economies also on the level of bilateral sharing and exchange among residents, is as yet less clear and has been fraught by ambivalences that are connected with the actors involved in the development of the platform, and with its technological structure, as we will explain further on.

The platform will offer specific communication and information channels for different target groups. It is designed to provide diverse means of access to ensure the greatest possible interaction and to present general as well as specific information on sharing offers and requests. Basically, the digital platform is nothing more than a digital 'black board' meant to facilitate the matching of supply and demand in a non-commercial way. The link to further technical systems will be openly specified. While this idea is fairly simple, the design process of the digital tool is less straightforward, for it is established at the intersection of capitalist and social economy rationalities that shape the intended digital platform as a contentious field of urban development embedded in broader social relations. In the following, we will analyze these intersections and ensuing ambivalences.

In general, it is difficult to implement social economy perspectives in urban development in Graz because of the profit-oriented operation of private construction, planning and development companies, the political framework of the city of Graz, which is characterized by austerity, and the lack of re-

sources in the urban planning and development departments.[1] The power of negotiation of the city of Graz with investors and profit-oriented developers is severely limited because of the lack of public land. Since the city does not own building plots in relevant areas, it can only influence urban development through the possibilities of local development and zoning plans as well as by means of implementation agreements or mobility contracts with investors. These, however, are against their interest, as they amount to additional expenses cutting into profits. The city administration therefore occupies an ambivalent position between political agenda setting in terms of the smart city on the one hand – which, at least, may provide some leeway to developing social economy initiatives and perspectives – and a lack of means to actually enforce or implement this political agenda on the other.

StadtLABOR also operates from an ambivalent position due to the commercial character of the urban development regime in Graz. On the one hand, StadtLABOR has generated valuable and far-reaching sustainability impulses on different levels of the city in recent years, including certain social economy initiatives. On the other hand, it is a commercial company creating its own opportunities for economic survival in an environment marked by competition for scarce public resources. It depends on public funding, municipal project contracts, and contracts with private investors and is therefore unable to implement radical approaches in view of, e.g., social economies. These constraints favor activities that do not question power relations and overarching capitalist rationalities.

The ambivalences that result from the intersection of capitalist and social economy rationalities also affect the project lead. RCE has been involved in the co-development and evaluation of participation measures of the city of Graz since 2014. These activities were mainly related to the strategic (administrative) level, which allowed RCE to take on an analytical meta-perspective. Within the framework of SMASH, however, the applied character of the project and the dual function of RCE staff to initiate and accompany social processes as well as investigating them from a critical perspective forces researchers into an ambivalent position. By taking on concrete activities and influencing discourses, RCE is no longer perceived as an independent research

1 After the elections of 2021, the Communist Party (KPÖ) has succeeded the People's Party (ÖVP) in city government (in a coalition including the Greens and the Social Democratic Party, SPÖ). The change in government may result in a transformation of this framework.

institution by the actors involved, especially by civil society, which occasionally leads to criticism from these civil society actors, who question the involvement of RCE in urban development processes.[2]

The IT developer within the project, the Bravestone Technology-Information GmbH, likewise occupies an ambivalent position. Funded by KLI.EN at a 60 % rate (like the other partners), its core business of developing software is sidelined by the program. This is in accordance with the sustainability focus of KLI.EN, which pursues a broader notion of smart city, one not reduced to technological development. However, this focus probably increases the firm's cost pressures, for which reason it may aim at recovering unpaid expenses through marketing the software of the digital platform that is developed within SMASH after the project has been finished. Moreover, the owner of the firm is also the head of the local marketing and service association of developers in MySmartCityGraz and has personally invested in the construction of new buildings in the area. This gives him the advantage of political backup from the city of Graz, a strategic position in dealing with developers and other investors, and a privileged opportunity to foster the business of his technology firm. However, the accumulation of multiple functions in different social relations confronts the owner of the firm with contradictory concerns attached to capitalist and non-capitalist rationalities, which requires him to mediate between social forces with diverging rationalities. For instance, while, as head of the marketing and service association, he is expected to represent developers' general interests, he should contribute purely as a technical expert without commercial interests in the SMASH project. Moreover, he has individual business interests as both a developer and software expert, which may not be in line with the general interests of developers in the area. Finally, he aims for a good relationship with the city of Graz in order to promote the general interests of developers but is also subject to the economic incentive to reduce obligations put on developers by the city administration, e.g., in creating public infrastructure. The articulation of different rationalities renders the SMASH platform politically ambivalent.

Given these ambivalences, the outcomes of the development of the digital sharing platform are as yet unclear. For instance, social economy innovations, such as online platforms, bear the risk that traditionally analog urban forms of sharing and exchange (e.g., libraries, public leisure facilities, or transport infrastructure) will be displaced, rationalized, or commercialized. They could

2 The authors of this contribution are part of the SMASH project team.

also be misused for appropriating personal data by profit-oriented actors. According to Bravestone Technology-Information GmbH, the sharing economy platform should include all MySmartCityGraz residents, who would be obliged to use the platform insofar as their contracts with houseowners and bills are managed through it. In connection with possible further options, such as matching non-commercial sharing and exchange requests and offers among platform users that include both MySmartCityGraz residents as well as inhabitants of surrounding areas (who should be able to register), this would generate a great amount of data that should be used for the benefit of the community and not for commercial purposes. However, since the platform is organized and hosted by investors and developers who are part of the marketing and service association, the risk of further commercial use, e.g., through data mining, cannot be precluded. An additional danger may be neglect of or the crowding out of social relationships. These develop best through personal contact and elaborate processes of getting to know each other face to face (which is particularly effective when a neighborhood is rather socially homogeneous) and require building trust. A negative effect of the digital platform on the development of social relationships would contradict the goals of the project (and KLI.EN), which define the digital platform merely as a tool, even more so because serious and comprehensive sharing and exchange of services, objects, spaces, and responsibilities beyond capitalist rationalities begin where social relationships are created.

Conclusions

Sharing economy platforms are not in themselves conducive or a barrier to social economy initiatives. They may facilitate social processes that can support social economy practices and provide solutions for particular logistical problems affecting them. While capitalist sharing economies appreciate digital platforms mainly because of their potential to establish new markets and reduce financial costs, social sharing economies have another perspective on such platforms. Social sharing economies are primarily interested in overcoming material challenges of fulfilling concrete social needs. Digital technologies may help to achieve this goal, e.g., by matching non-commercial caregivers and caretakers or managing the joint use of resources such as space for storing food or common activities. However, they may also enable the cooptation or misuse of social economy practices through capitalist power rela-

tions. This ambivalence results from the intersection between social economy and capitalist rationalities on the socio-technical terrain of a digital platform. This terrain is pervaded by social relations that are connected with contradictory rationalities and associated with a range of different processes as well as social relations that render the SMASH platform politically ambivalent. On the socio-technical terrain of the platform, the rationality of capitalist urban development therefore intersects with the bureaucratic external regulation of the city administration, which attempts to safeguard overall political development goals; national policies of sustainability oriented smart city projects; the specific rationality of broader social movements and academic trends influencing the project proposal through the project lead and the social networks it is embedded in; corresponding goals, imaginaries, arguments, and strategies of networks of the social economy activists who are mobilized by the project; and, finally, the rationality of the local neighborhood development agency, which operates in an ambivalent social space mediating between capitalist investors, city administration, social initiatives, and smart city goals defined on the national scale.

Navigating such ambivalences is not an easy task. According to our experience, shifting power relations toward social economy perspectives may use two different strategies. First, the political goals expressed in a funding program (established by KLI.EN) can serve as a discursive anchor that helps to move the semantic field, and corresponding development practices, toward social economies. In particular, *social economy* or related terms can be used as identity markers that delimit the realm of legitimate project activities. Second, external social economy actors that are successively included in project activities and take on lead roles for certain initiatives strengthen respective positions within the project team. Such external actors bring in expertise and local networks and create a specific social momentum that cannot easily be contained by other actors. For instance, the push for allowing commercial activities using the euro to take place through the digital platform could be warded off by strengthening the link with the complementary currency STYRRION, which is socially embedded and supports local economies in the sense of a social economy perspective. As was explained above, the analog social economy initiatives (a food co-op and repair café) additionally strengthen the political message and impact of the project and thus counterbalance the more ambivalent activities related to digital platform development. Moreover, the experiences with the SMASH project indicate that action research, as con-

ducted within this project, may be important for strengthening social sharing economies.

It is doubtful that these micro struggles are able to shift overall power relations in a city such as Graz by themselves. In fact, the political sea change of the municipal elections held in 2021, which put the Communist Party in power (together with the Greens and the Social Democrats as minority partners), has poignantly demonstrated the importance of macro political struggles. However, activities of a project such as SMASH may be effective in carving out socio-material spaces for social economy perspectives, and may be necessary to inspire, shape, or operationalize the politics of left-wing city governments. They could also influence national smart city policies through demonstrating that digital platforms are not necessarily at the service of profit-oriented actors and may indeed contribute to a more sustainable way of life in an urban neighborhood.

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