

## 7 Conclusion

The thesis aimed to develop strategies to increase resilience in Brazilian metropolises. Resilience is currently a trendy concept in urban planning, and is appealing due to its capacity to deal with uncertainty as well as complex systems comprised of people and nature (Eraydın & Taşan-Kok, 2013; Folke et al., 2004). Nevertheless, resilience is a broad concept that is at risk of becoming just another buzzword (Davoudi et al., 2012). To avoid this pitfall, the thesis attempted to contribute to one specific aspect of resilience, that of self-organisation, based on the resilience thinking in urban planning framework (Eraydın & Taşan-Kok, 2013). The capacity of a system to self-organise is indeed fundamental for resilience, but it becomes quite challenging to promote self-organisation in a spatially fragmented urban system. While the two phenomena seem incompatible, many fragmented cities in the Global South have witnessed the rise of self-organised initiatives, including Brazilian metropolises. The contradiction between self-organisation and spatial fragmentation triggered an interest in taking a closer look at the relationship between the two phenomena.

During the thesis research, it became clear that the spatial fragmentation of Brazilian metropolises goes beyond the disconnection of physical spaces. It also depends on the degree of social disconnection imbedded in the socioeconomic inequality of the country. Connecting spaces in Brazilian metropolises does not mean that new social connections will be created between disconnected groups. Creating good-quality public space between a gated community and an informal settlement is not sufficient to connect the people from each environment. Even great quality urban design is not sufficient on its own to break down the social walls between groups with strong socioeconomic inequalities. Walls in Brazilian metropolises are not only physical but also social.

The thesis reveals that self-organised initiatives can be very effective in fostering social connections and increasing the level of integration in such contexts of inequality. The premise of the thesis was that urban planning can play a role in promoting resilience in fragmented and unequal cities of the Global South by incorporating the work of self-organised initiatives. With this in mind, the recommendations presented here focus on the improvement of urban planning strategies to incorporate the positive elements of self-organised initiatives when working in fragmented and unequal urban contexts. The responses to the research questions move in the direction of providing tools to understand the two phenomena and their relationship with urban planning.

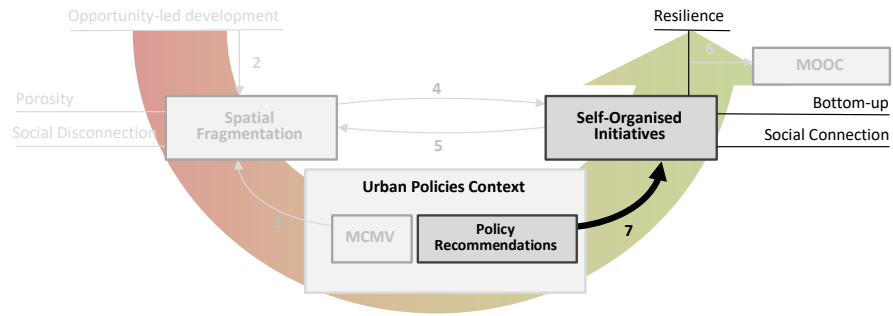


FIGURE 7.1 Conceptual relation of Chapter 7

As regards the aim of increasing the resilience capacity of Brazilian metropolises, the thesis only partially achieved its purpose. It is important to clarify that the set of policy recommendations presented here mainly promotes the development of social connections in the renewal of public spaces through the incorporation of the work of self-organised initiatives. This does not mean that the resilience of the urban system as a whole will be improved only by fostering the work of self-organised initiatives. What the thesis reveals is that incorporating self-organised initiatives into planning strategies is an effective way to counteract one of the main underlying forces of fragmentation specific to Brazilian metropolises – the disconnection between groups due to socioeconomic inequality – and on this basis will contribute to increased resilience. There are still many avenues for research to contribute to the development of a more comprehensive strategy on how to foster the resilience capacity of Brazilian metropolises. Self-organisation is only one dimension of resilience.

The case study examining how the doctoral research project can generate societal impact through online planning education produced interesting results. The research showed that the connection with practice can be achieved through the open publication of academic articles, but also through open education. The Rethink the City MOOC had a greater effect than expected, with more than 17,000 participants in the two editions of the course. The content of the research was made available to a broader and diverse audience, which received and replicated the knowledge presented. Although it is difficult to precisely measure the impact of this experiment, Chapter 6 nonetheless revealed that the MOOC generated a truly global impact.

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## § 7.1 Fragmentation, Resilience, Self-organised Initiatives and Online Education

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All of these findings comprise responses to the main research question and the research sub-questions that are presented individually in this section. The answers to the sub-questions are presented first. They are divided into three themes: fragmentation and resilience, which presents the results from Chapters 2 and 3; fragmentation and self-organisation, which presents the results from Chapters 4 and 5; and planning education and online tools, which focuses on Chapter 6. They are divided into these three topics because they represent the three main phases of the research, the exploration of fragmentation and resilience; the study of self-organisation initiatives in Brazil and their relationship with fragmentation; and the main strategy adopted to generate societal impact – the use of online education. This division does not mean that the analysis followed these three steps precisely, as there was some overlap during their development. This structure, however, makes it easier to see how the results of these three phases were built up to respond to the main research question.

### § 7.1.1 Fragmentation and Resilience

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**Fragmentation generates opportunity for resilience; however, urban policies, such as the MCMV, based on market structures that reinforce fragmentation, are not able to translate this opportunity into resilience.**

The results from Chapter 2 revealed that the spatial discontinuities found in Brazilian metropolises are a double-edged sword, which can generate negative or positive impact with respect to resilience. In the specific case of the metropolises of Manaus and Belém, Chapter 3 showed that the MCMV social housing programme is not generating opportunities from local spatial fragmentation but is actually reinforcing it. The two chapters focused on this theme and answered the following research sub-questions.

#### **Do spatial discontinuities create opportunities for resilience?**

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Yes, it is possible to generate opportunities for resilience from spatial discontinuities; however, the study shows that there are several aspects to be considered. Firstly, spatial discontinuities, referred to as porosity, depend on the specific context, which

can generate positive or negative effects on resilience. The local context is fundamental for determining how these discontinuities will contribute to the resilience of the urban system. A closer analysis of each specific case is necessary to an understanding of the particularities, opportunities and risks of each one of them. Secondly, despite the necessary consideration of the local context, the porosity index can serve as a first step in assessing spatial discontinuities in Brazilian metropolises. Although the index can be improved with additional data and further research, it provides an initial understanding of the local context in comparison with other Brazilian metropolises. Thirdly, the chapter demonstrated that the link between porosity and resilience can be established through certain policy instruments that promote territorial as well as relational approaches to the space; for example, community land trusts (CLTs), community benefits agreements, joint development projects, land readjustment, interim use, business improvement districts, industrial improvement districts, urban agriculture regulations and the *cittaslow* strategy. These instruments increase resilience because they integrate fragmented spaces and communities, while also allowing them the space for self-organisation, flexibility, cohesion and the potential for change.

Areas with higher porosity have more potential to develop such instruments to trigger resilience opportunities. Moreover, in order to transform porosity into resilience, it is imperative to identify the main challenges imposed by these spatial discontinuities in each context, since they can vary from city to city. While porosity in Rio de Janeiro is based on the high number of slums and gated communities, this is not the case in Brasília, although they have similar porosity indexes, 0.13 and 0.14 respectively. To conclude, as mentioned in Chapter 2, porosity has a direct impact on resilience, since fragmented urban environments also tend to be more socially disconnected and tend to respond less efficiently to economic, social and environmental changes. Porosity can increase or undermine the capacity of a metropolis for resilience, depending on whether it constitutes a treat or a threat. In this sense, when used strategically, porosity represents an exceptional opportunity for improving resilience in the built environment.

### **To what extent is the MCMV programme reinforcing existing spatial fragmentation in Manaus and Belém?**

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Belém and Manaus are the two metropolises with very high porosity indices and it is important to understand their local context. In both cities, fragmentation is being reinforced by the social housing programme of the federal government (the MCMV). The maps reveal the particularities of each pattern of spatial fragmentation. Manaus has fewer social housing projects, but they are on a larger scale and concentrated in the northern area of the city, while in Belém the projects are a little more scattered and on a smaller scale. Nevertheless, both cities show an imbalance in the location of the MCMV programme, with a concentration on the periphery and almost no development

closer to the central areas. This demonstrates that the programme implementation is following strong market dynamics, prioritising the development of houses in locations where land prices are low. This has generated a strong push towards urban sprawl and it is reinforcing the fragmentation pattern in both cities. The average travel time for a resident in an MCMV programme dwelling to the Belém or Manaus city centre is 91 minutes in off-peak hours using public transport, which makes access to services and opportunities more difficult. This strengthens isolation and the necessity of developing the autonomous capacity of these communities. Based on the findings of Chapter 2, it is possible to conclude that the MCMV programme is not using the spatial fragmentation of Manaus and Belém to trigger resilience opportunities. On the contrary, the programme is emphasising the spatial and social division that was already present in both cities.

## § 7.1.2 Fragmentation and Self-Organised Initiatives

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**Spatial fragmentation has a strong influence over where self-organised initiatives operate. At the same time, self-organised initiatives managed to undermine some of the underlying forces of spatial fragmentation, such as social disconnection in contexts of extreme inequality.**

The results from Chapter 4, based on a case study of São Paulo, show that the city has historical spatial fragmentation marked by a strong polarisation between centre and periphery. This spatial fragmentation is also reflected in the way self-organised initiatives operate, mainly limiting their actions to areas where they have more social connections. Chapter 5 demonstrates that, despite being limited by spatial fragmentation, the initiatives studied are able to integrate people in extremely diverse socioeconomic contexts. This social disconnection in the context of inequality is one of the underlying forces of spatial fragmentation in Brazil. In this sense, this integration capacity of self-organised initiatives is an important resource to tackle fragmentation in Brazilian metropolises and has been attracting the interest of urban planners. The two chapters developed on this topic were responding to the following two research sub-questions:

### **To what extent does spatial fragmentation influence self-organised initiatives?**

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Although making intensive use of digital communication tools such as online social networks, self-organised initiatives are highly dependent on the physical context. While social media was used to spread the word about their work, to schedule meetings and

to encourage more participants to be involved, the self-organised initiatives studied in São Paulo demonstrated that the connection to a physical place where they could gather and conduct their activities is paramount. However, only using a physical space did not seem sufficient as the only channel of dialogue. The initiatives rely heavily on both realms, digital and physical, as important realms in which to conduct their activities. In the specific case of São Paulo, as already indicated by previous research, spatial fragmentation is based on an extreme polarisation pattern, with the city centre, or '*centro expandido*', as the main pole. This polarisation has a strong influence on how self-organised initiatives operate. Just as the city is divided between centre and periphery, so are the actions of self-organised initiatives. The interviews show that although many initiatives in the city centre wish to expand their actions towards the periphery, they face several difficulties in doing so. As a result, they end up concentrating their operations mainly in the local context of the '*centro expandido*'. The reasons for their inability to circumvent this polarised structure are the lack of social connections with residents of the periphery, difficult access and violence. Indeed, based on Sabatini and Salcedo's framework, the integration between residents of the periphery and the city centre is mainly functional.

**To what extent can self-organised initiatives promote social connection in highly fragmented and unequal urban contexts?**  
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It is of fundamental importance here to understand the modus operandi of self-organised initiatives and the impact they can have on connecting groups in highly fragmented and unequal urban environments. Firstly, it is remarkable that young urban planners are assuming active roles in these initiatives. It is difficult to establish why this phenomenon is occurring. However, as already pointed out by other researchers, this can be related to the current frustration of young planners with planning practice today (Taşan-Kok & Oranje, 2017). What is clear is that young planners believe in the capacity of these initiatives to change the urban environment. The planners not only justified their participation in self-organised initiatives based on a belief in their potential to tackle urban challenges on a neighbourhood scale, but also because they believe self-organised initiatives can play a role in solving macro urban problems on a city scale. Despite the lack of a precise measure of the impact of these initiatives at the city scale, the perception and interest of planners in these initiatives already indicates that they might play a greater role than on the local scale.

Moreover, planners working in self-organised initiatives are assuming different roles compared to traditional planning practices. Planners in self-organised initiatives are working as mediators with technical knowledge to implement the aspirations of the local community. The connection between planners and the local community was the first indication that self-organised initiatives are able to connect a diverse group. Self-

organised initiatives were able to work closely with civil society and function even in a context of extreme social and economic inequality. Based on Sabatini and Salcedo's integration framework, self-organised initiatives raised the level of integration from functional to symbolic and in some cases to community integration between extremely diverse groups. The increase in the level of integration between the people participating in the initiatives has a significant impact on the local social dynamics and particularly in the space where these initiatives occur. The initiatives managed to create unexpected social connections while renewing public space. This capacity to create social connections between extremely diverse groups is positive because it undermines the logic of spatial fragmentation in Brazilian metropolises, which, as discussed, is not only based on the disconnection of spaces but also on extreme social division.

### § 7.1.3 Planning Education and Online Tools

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**MOOCs are a powerful tool to disseminate research and have a strong societal impact.**

The experience of the Rethink the City MOOC, addressed in Chapter 6, demonstrates that online planning education is an interesting outlet for research. The results show that the societal impact of the course was much greater than expected. In this sense, this platform should not be ignored as an efficient channel to trigger societal impact, especially when focusing on planning education. Chapter 6 delved into this topic by answering the following research sub-question:

**How is this new learning experience being developed, delivered and impacting planning education?**

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The case of the Rethink the City MOOC reveals the benefits and challenges of using doctoral research for educational purposes in an online environment. Although MOOCs are a recent phenomenon, there is no doubt that online education will continue to increase its presence in planning education. The use of the internet made it possible to break the boundaries of the local context and connect on a global scale, which fostered a stronger diversity of perspectives and knowledge exchange. Additionally, the change of scale potentialises the impact of a planning education course. The fact that 10,959 students registered for the first edition of the Rethink the City MOOC and accessed the course platform from 160 different countries, already indicates that the societal impact of such a course is much greater than a regular on-campus planning classroom. The course aimed to develop critical thinking and to provide examples of theory and practice integration.

During the delivery of the course, it was soon possible to witness students attempting to reproduce lessons and examples from the course in their local context. The exposure of the work of one self-organised initiative, for example, made it possible for students worldwide to learn about these initiatives as a way of collectively transforming neighbourhoods. Connecting the work of researchers in Delft to a global community, the Rethink the City course successfully generated a strong impact in local regions throughout the world.

This has a special meaning in the Global South, where access to low-cost and good-quality higher education might be a challenge. This success also points to a possible change in the role of higher education institutions, from being less centres of knowledge production and more moderators and virtual hosts of a collective knowledge-exchange process. Despite it being difficult to accurately determine the societal impact of exposing planning research to an online planning education platform, the experience of the Rethink the City MOOC revealed that this doctoral research has the potential to generate high societal impact, not only through academic publications or policy recommendations but also by developing open access education content on online platforms.

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## § 7.2 Answer to the Research Question

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The thesis investigated the capacity of self-organised initiatives to counterbalance spatial fragmentation in Brazilian metropolises as a possible resilience mechanism. In order to address this, the concept of spatial fragmentation, especially in the Brazilian context, was studied.

### **To what extent can resilience towards spatial fragmentation be enhanced by self-organised initiatives?**

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As presented in Chapters 2, 3 and 4, spatial fragmentation in Brazil not only refers to the development of walls or the creation of left-over spaces due to uncoordinated urban growth, but also the social disconnection between different socioeconomic groups. In other words, spatial fragmentation in Brazilian metropolises goes beyond the disconnection of physical spaces, it also involves social aspects, due to barriers created by inequality within the country. Traditional planning tools can break down physical walls and connect spaces, but it has more difficulties disrupting social walls. It is in this regard that self-organised initiatives become vital. Although they have



limited legal and financial capacity to change the built environment, they are extremely efficient in breaking down these social walls and connecting diverse groups, as demonstrated in Chapters 4 and 5.

From a resilience perspective, social disconnection is a threat, as it undermines the capacity of an urban system to respond to an impact. The ability of a system to self-organise in the face of threats is one of the pillars of a resilient system. Applying resilience thinking in urban planning, the conceptual model (Figure 1.1) argues that self-organised initiatives have a positive impact on the resilience capacity of Brazilian metropolises. The research demonstrated that self-organised initiatives cannot completely counterbalance the spatial fragmentation of Brazilian metropolises, but that they do overcome some aspects of it, particularly the social disconnection present between different groups in an unequal society. The self-organised initiatives studied demonstrated the capacity to connect people even in contexts of extreme inequality, while implementing urban renewal projects on a local scale. Furthermore, the research described in Chapter 5 revealed that urban planners are taking active roles in self-organised initiatives as a recognition of a desire both to work closely with civil society and to tackle urban challenges on the neighbourhood and city scales.

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### § 7.3 Limitations of Planning with Self-Organised Initiatives

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Self-organised initiatives are useful in developing urban renewal projects, while also promoting social connections between diverse groups. Urban planning could definitely pay more attention to the dynamics of self-organised initiatives and include them as partners in urban renewal projects. Nevertheless, it is imperative to point out that self-organisation has its own limitations, and including such organisations in planning strategies will have its challenges.

Firstly, working with self-organised initiatives may be an attractive idea from the perspective of public administration, since it gives society the work that would traditionally be the responsibility of public authorities. It reduces the amount of labour and resources that municipalities would otherwise spend doing what self-organised initiatives achieve. Nevertheless, just as public authorities can fail, so can self-organised initiatives. As pointed out by Uitermark (2015), self-organisation can also fail to deliver the expected results. There is no guarantee that civil society will perform any better when dealing with urban renewal. There are many challenges for self-organised initiatives to overcome in order to be successful, such as a lack of financial,

legal or technical support. Planning strategies should be aware of these challenges when working with self-organised initiatives.

Additionally, one of the reasons self-organised initiatives are extremely efficient in connecting with the local population is because they are very spontaneous and do not have much of a bureaucratic structure. Public agencies working with self-organised initiatives should be aware of the importance of keeping these two characteristics as intact as possible in order not to jeopardise the positive effects to be gained from them. Although it is to some extent a paradox to have self-organised initiatives working as partners of public authorities while maintaining their spontaneity and non-bureaucratic approach, this is possible if municipalities do not impose too many constraints on the modus operandi of such self-organised initiatives. Limiting their capacity to make decisions about where to work and how to work, for example, will definitely impact on the connection that they have with the local residents. Furthermore, imposing overly bureaucratic procedures on self-organised initiatives conditioning how they perform will hinder their flexibility and efficiency. Nevertheless, these challenges can be overcome by developing a closer relationship with self-organised initiatives and establishing efficient channels of communication between them and public authorities.

Moreover, the fieldwork demonstrated that self-organised initiatives have difficulties in financing their activities and depend on the support of members, other donations or sponsorship from private companies. As a result, their activities can be quite limited due to financial constraints, meaning that the self-organised initiatives cannot invest in large infrastructural changes. While private and public developers can work on large-scale projects, self-organised initiatives work on small-scale projects. They mainly focus on the creation of activities in public space as a strategy to improve the space itself or in the development of small-scale changes, such as the introduction of new urban furniture or the renovation of existing fixtures. In this sense, it is important to be aware of the financial and scale limitations of self-organised initiatives. Municipalities might also help self-organised initiatives financially, as well as providing technical support through their planning departments.

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## § 7.4 Recommendations

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The thesis led to the formulation of some policy recommendations based on the challenges revealed by and findings of the research. The recommendations are divided into two categories: for policy development, focusing on public agents; and for

educational purposes. These recommendations do not aim to be a recipe or a one-size-fits-all solution. They are based on common challenges witnessed in different cases analysed in the research; however, they need to be adapted to the dynamics and particularities of each context. The recommendations aim to foster the work of self-organised initiatives in collaboration with public authorities, increase resilience in Brazilian cities and have a stronger societal impact throughout planning education. Nevertheless, it is important to note that the recommendations are just a starting point on the basis of which action strategies might be drawn up, and they should be further explored.

### § 7.4.1 Policy Development

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These policy recommendations are aimed at public institutions responsible for the management and redevelopment of public space. In the cases studied here, these are the Secretaria Municipal de Desenvolvimento Urbano (SMDU) for São Paulo, the Secretaria Municipal de Urbanismo (SMU) for Rio de Janeiro, and the Secretaria de Estado das Cidades for Brasília. The implementation of these recommendations might involve other divisions within the municipal authorities. Despite the administrative differences between the three departments, the recommendations were developed based on general challenges faced in all cases, in an attempt to develop a productive relationship between public authorities and self-organised initiatives. As such, the recommendations can be used as a reference for other municipal bodies in other cities that do not have a productive relationship with self-organised initiatives..

#### **Provide strategic support for self-organised initiatives that are already generating positive results:**

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None of the municipalities studied had a programme to specifically support self-organised initiatives that are already generating positive results. Municipal programmes tend to classify all initiatives without any distinction, without considering factors such as how long they have been operating, how many events or actions have they have already organised, and the results of these projects. To support initiatives without a strategic vision of their capabilities is inefficient. It is more productive to develop special working groups within municipal planning departments to create strategies to better evaluate self-organised initiatives and work closely with them. This could be done initially in partnership with a few selected self-organised initiatives and be expanded at a later stage. The Institute of Architects of Brazil from São Paulo, for example, gives an annual prize for initiatives that they have described as ‘urban

activism'. The winners of the prize could be a starting point for partnerships between such initiatives and the municipality of São Paulo.

**Develop a constructive relationship with self-organised initiatives and maintain their independence:**

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Municipalities have more to gain by working with self-organised initiatives as collaborators than as regulators. Self-organised initiatives will continue to exist independently of attempts by public agents to regulate or control them. In this sense, it is advisable to open channels of communication not only to understand their wishes, but also to follow their work and facilitate collaboration whenever possible. This can be done, for example, by rewarding initiatives that have generated positive outcomes for the city and thus set a positive example for other initiatives. Moreover, municipalities could offer technical support to self-organised initiatives that are generating positive change in the urban environment. During the fieldwork, it was observed that some public servants already work as volunteers in self-organised initiatives during their free time, but this commitment is not reflected in better interaction between self-organised initiatives and public institutions. Municipalities should take advantage of the fact that public servants are already involved in self-organised initiatives and invest in developing partnerships with them.

**Create efficient channels of communication with self-organised initiatives:**

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It is important to develop efficient channels of communication with self-organised initiatives, since traditional channels such as contacting an ombudsman or calling hotlines are not sufficient. Self-organised initiatives intensively use social media tools as their main communication platform. In order to cultivate continuous and productive communication with self-organised initiatives, it is imperative that public agencies develop the capability to use the same language and access these forums. To have more efficient communication with self-organised initiatives, municipalities should invest in strengthening their capacity to operate in the social media environment in a more professional and structured manner. This is not only important for establishing more efficient communication channels, but also to enable genuine access to the debates and the work of self-organised initiatives in the digital world. Furthermore, beyond interaction in the digital realm, municipalities should support the development of information sessions for self-organised initiatives, where the latter could present and debate their projects.

### **Decentralise processes of collaboration:**

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Especially on the scale of a metropolis, it is difficult for public authorities to keep track of all self-organised initiatives taking place in the city. This might not even be attainable. Nevertheless, municipalities can have more productive relationships with self-organised initiatives if they give more autonomy to sub-municipalities and administrative regions to work with self-organised initiatives on their behalf. These smaller units already have closer contact with self-organised initiatives; however, they do not have the autonomy to directly support initiatives without clearance from the central administration. Investing in decentralising processes and collaborations can substantially increase the cooperation between self-organised initiatives and public authorities. It goes without saying that this should be done following general guidelines from the central office of the municipality.

### **Mediate between the private sector and self-organised initiatives:**

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Some self-organised initiatives already receive support from private companies to implement their activities. This support can have positive and negative results. This kind of partnership can generate win-win outcomes, with self-organised initiatives pushing forward their projects and companies improving their image by being connected to a social cause and developing social responsibility. However, this can also generate negatives outcomes, with the self-organised initiatives being overtaken by the interests of private enterprises. Public authorities should act as mediators to guarantee the public interest and to promote connections between sponsors and self-organised initiatives. This also depends, naturally, on the size of the private partner involved. Local business owners have more access to initiatives that influence their business activities and can take part in such initiatives; however, for medium and large-sized business, it is important that public authorities are present to guarantee that the public interest is preserved in such partnerships.

## **§ 7.4.2 Planning Education**

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These recommendations are aimed at urban planning universities and technical schools that wish to increase their societal impact through education. The experience of presenting this doctoral research in an online learning environment faced some challenges, but also demonstrated that doing so has great potential for societal impact. Although online education has been growing exponentially over the last decade, it has not been fully explored by urban planning schools. It is hard to believe that there

will be a retreat, with online education tending to have more presence each day in higher education. The recommendations presented below are part of an attempt to collaborate to ensure urban planning education is ready for this educational revolution. These recommendations consist of different steps which can be used to develop an educational programme that fosters education with societal impact based on research.

#### **Adapt programmes for online planning education:**

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Online education has grown exponentially in the last decade and planning is not spared from this educational revolution. There is no sense of a retreat in this phenomenon, and planning education needs to be prepared for it. The Rethink the City MOOC experience, as part of a first batch of well-recognised planning courses, already suggests that there is a lot to learn and to improve. Contemporary planning curricula are not yet adapted to accommodate this change and this could cause difficulties in the future.

#### **Include more cases of self-organised initiatives in planning education:**

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Self-organised initiatives may generate various insights and have greater societal impact. For example, one self-organised initiative from São Paulo participated in the Rethink the City MOOC and talked about their work on renewing public space. Although it is difficult to measure the impact of this kind of educational experience, the course opened the opportunity for knowledge dissemination and also triggered new local initiatives based on lessons learned from the case presented. One student in Brazil, for example, based on a collective action, presented his final assignment project to a local congressman, who expressed interest in supporting his idea. This is a small example of how the inclusion of self-organised initiatives in planning education can trigger other initiatives and generate greater societal impact.

#### **Diversify the debate with more cases from the Global South:**

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The Global South is the frontline of the urban agenda. Urban planning education can benefit from a broad and open international debate. Although solutions always need to be local, problems are global and we can definitely learn from different approaches. Increasing the spectrum of different planning practices can substantially enrich the debate in planning education.

#### **Invest in blended learning:**

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Despite the challenges of combining online education with traditional methods of on-campus education, the benefits are great, including online courses as tools in on-campus classrooms. The inclusion of on-campus students in MOOCs could, for

example, connect students in Delft directly to practitioners. As the results of the Rethink the City MOOC have shown (more than 40% of the participants in the MOOC were working professionals), this can generate a higher level of knowledge exchange and develop a broader professional network. According to Ratnayake and Butt (2017), the gap between theory and practice is one of the biggest challenges in planning education, and can partly be improved through blended learning. Moreover, blended learning manages to bring the incredible diversity of perspectives that are available to the on-campus classroom. This international contact enriches the debate and raises the standard of work produced in on-campus education.

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## § 7.5 Societal Impact

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The thesis serves to support the development of policies and programmes that aim to work with self-organised initiatives. Municipalities have a lot to gain from working in collaboration with self-organised initiatives. In addition to being an important channel to implement the wishes of local communities, self-organised initiatives are able to tackle urban challenges while connecting diverse groups, even in unequal environments. As a result, self-organised initiatives can have a positive impact, and this is especially the case with the spatial fragmentation of Brazilian metropolises, which is due to the social disconnection created by an extremely unequal urban environment. Nevertheless, it is not an easy process to have municipalities and self-organised initiatives working together. In developing the above-mentioned policy recommendations, this thesis responds to the insights gained concerning how public institutions can develop more constructive relationships with self-organised initiatives. Improving these relationships breaks down the social walls that urban planning cannot demolish with design-based solutions. Nevertheless, implementing these policies depends on the open-mindedness of public authorities in supporting such initiatives.

Moreover, exposure to the Brazilian context can provide a useful example for other cities that are experiencing the rise of new self-organised initiatives. The direct participation of citizens in the development of the urban environment is a global phenomenon and public institutions still lack experience in how to better deal with them. Even in the Global North, where planning departments are more active in responding to the general needs of the urban population, self-organised initiatives are emerging. The challenges and lessons presented in this study can be helpful, not only for understanding the motivations and modus operandi of self-organised initiatives,

but also to provide examples for other cities on how to develop a constructive relationship with these initiatives from the beginning.

Nonetheless, producing a doctoral thesis that is relevant to contemporary problems is not sufficient to generate societal impact or to avoid the research being relegated to a university repository. In addition to the production of the manuscript itself, the strategy of this research was to also invest in other channels to generate societal impact. This approach is not meant to undervalue the impact of the publication of the thesis, but to offer other possibilities beyond the release of the research into the academic realm. The first channel was to use an online platform to increase the exposure of the work developed during the research in a more systematic manner and in an accessible language. Working with other doctoral researchers from the Faculty of Architecture and the Built Environment of TU Delft, who also conduct research into the urban challenges of the Global South, a website was created to unite this academic production in one place and in a user-friendly way. The aim was not only to disseminate the content of our individual research, but also to increase our potential societal impact by combining different academic perspectives on one platform. It was in this context that the Global Urban Lab was created. The final findings of this research are available on the Global Urban Lab webpage.

As a product of this collaboration between doctoral researchers in the Global Urban Lab, the massive open online course (MOOC) Rethink the City was created. The experience of the Rethink the City MOOC made clear that planning education, especially if combined with online tools, can generate a stronger societal impact. The MOOC served the purpose of exposing the research to a larger audience so as not only to receive feedback from people located in the areas of the case studies, but also to offer analytical tools to a larger audience. The two editions of the course attracted 17,278 participants in total, of which 2,179 were from Brazil. The MOOCs presented the research of 14 PhD candidates. The presentation of theories, analytical frameworks and case studies of doctoral research in a massive open online course increased the societal impact of the work developed.

In the specific case of this research project, the introduction of the idea of planning with self-organised initiatives, as well as the participation of one initiative in the course, triggered several participants to attempt to reproduce the work of this initiative in their local context. The initiative that took part on the course was *Cidade Ativa*, which promotes collective actions to renew public space in São Paulo. They were linked to participants in the course via video, in which they described their work. This triggered debate and inspired participants. Additionally, the course was an opportunity to engage in a debate with local practitioners, with 42% of the active participants declaring themselves as such. The connection of the research with a large group of professionals



has the potential to generate impact beyond their education and have a direct effect on their daily professional practice. Although it is not easy to measure the societal impact of presenting the research in an online environment, it is irrefutable that the Global Urban Lab and the Rethink the City MOOC substantially increased the societal impact of the study.

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## § 7.6 Avenues for New Research

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Spatial fragmentation is an important challenge for many metropolises in the Global South because it has implications for different levels of human wellbeing. It affects such issues as housing, service provision, mobility, resilience and security. Understanding its causes, underlying forces and consequences is paramount to being able to tackle it with effective public policies. The relationship between fragmentation and self-organisation fits within this context, and can be further explored beyond this research. Comparative studies looking at other cases from the Global South would add information concerning the dynamics of different types of fragmentation and self-organisation. Issues could be explored in relation to questions such as: To what extent are other cases of self-organised initiatives generating strong social contact between diverse groups, or is this a particular aspect of the Brazilian self-organised initiatives studied here? The local dynamics of fragmentation and self-organisation are important and each context can generate valuable insights. Just as the lessons learned from the Brazilian cases have been shown to be useful elsewhere, the understanding of other contexts would also generate a more nuanced view of this relationship.

Furthermore, self-organised initiatives do not seem to be a phenomenon that is exclusive to the Global South. Cities in Western Europe are witnessing a rise in these types of initiatives (Healey, 2015). In the Netherlands, for example, initiatives such as *Wijkwandeling*, or neighbourhood walks, are spreading around different cities. Nevertheless, although these self-organised initiatives also seem to mainly occur in highly diverse neighbourhoods, the emergence of self-organised initiatives in the Global North does not seem to be connected to spatial fragmentation and the lack of service provision from public institutions. There are other motivations behind the emergence of self-organised initiatives, and it is interesting to note that these bottom-up movements occur in these different urban contexts, responding to different kinds of local social dynamics and focused on different local challenges. Despite these differences, developing a general understanding of how self-organised initiatives form and develop the capacity to address urban challenges in different urban settings may be

particularly interesting for planning practice. The comparison between self-organised initiatives in the Global South and the Global North could generate new insights into the development of this phenomenon and its connection with urban planning.

Additionally, planning with self-organised initiatives is a relatively new topic. Although self-organised initiatives have been active in Brazilian cities for decades, there is much more to be explored. The increasing participation of urban planners in these initiatives, for example, is something worth shedding light on. Young planners, especially, are becoming active in these initiatives and applying their technical knowledge. This indicates a change in the role of planners, which requires the development of a new set of skills and knowledge. In this regard, a whole new set of questions emerge. First, why are planners joining these initiatives? When even urban planners working in traditional planning departments are joining self-organised initiatives as volunteers, it is important to better understand what their motivations are. Second, what are the challenges of working in self-organised initiatives? Being part of such initiatives definitely creates different challenges for planners and this has not yet been further studied. Third, what role are planners taking inside these initiatives and how this is creating the necessity to learn new skills? This can also have implications for planning education, since traditional planning curricula might not include the tools required for this new practice. In this sense, planning education can benefit from a closer investigation of the contemporary practice of urban planners involved in self-organised initiatives.

The institutionalisation of self-organised initiatives is also a topic that deserves further investigation. Organisational diversity has already been pointed out as a necessary condition for community vitality (Barrett et al., 2011). However, the level of institutionalisation has varied a lot between the initiatives studied here. It would be interesting to analyse the reasons behind the decision of self-organised initiatives to further institutionalise or not. In Western Europe, there is a historical tendency for these initiatives to undergo an institutionalisation process whenever they start to collaborate with local governments. In Britain, for example, there has been a tendency for continuous cooperation with public planning institutions, even when there are conflicts between the government and local civic associations (Hewitt & Pendlebury, 2014). Nevertheless, it is hard to imagine such a scenario in Brazilian metropolises in the short-term, as there is still a lot of mistrust between public authorities and self-organised initiatives. In this regard, it would be important to understand what the consequences are for self-organised initiatives and for public authorities with regard to the institutionalisation of these initiatives.

## § 7.7 Final Remarks

Brazilian metropolises are extremely complex. They have many challenges to overcome in order to improve the urban environment and, consequently, the wellbeing of their inhabitants. Public authorities have been struggling in the last half century to manage rapid and uncontrolled urban growth that followed strong opportunity-led development. This process, added to the historical concentration of wealth in the country, led to the contemporary urban context, in which a high level of inequality occurs in all Brazilian metropolises. This poses a dramatic challenge to urban planning institutions: how to develop public spaces that will serve a public that has such extreme levels of inequality. It is in this area that this thesis hopes to have contributed. Traditional urban planning strategies do not seem to be sufficient to overcome these challenges, and this thesis demonstrated that some planners have already seen a possible ally in the work of self-organised initiatives. In this context of inequality, self-organised initiatives have demonstrated an outstanding capacity to build strong social connections based on their work redeveloping public space.

Nevertheless, it is important to clarify that self-organised initiatives should not be seen as infallible as a strategy to integrate extremely diverse groups. They are only part of the solution, and public authorities must continue to address the structural inequalities present in their country. Nonetheless, academia and public authorities should definitely pay more attention to self-organised initiatives as drivers of urban change in unequal environments. Although there is still a lot to be learned regarding the initiatives and their limitations, the results of this thesis already point to encouraging possibilities for cooperation between public entities and self-organised initiatives to break down the social barriers that are inherent in Brazilian public spaces. There is a long way to go, but it is hard to imagine a different strategy than improving collaboration between civil society and public authorities.

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