

6 Planning education with self-organised initiatives: a case study of societal impact using online education

A PhD thesis develops by aiming to answer specific research questions. However, despite the quality of the research, the translation of scientific knowledge into societal impact can be challenging. This thesis not only aims to contribute to the academic debate concerning urban planning but also to have a societal impact beyond the realms of academia and recommendations for public policy. In achieving this aim, the work developed here was mainly limited in two aspects. Firstly, doctoral research has a natural difficulty in generating societal impact due to its dependence on third parties outside academia. In planning research, the dependence is mainly on public authorities. Some doctoral theses result in the development of a set of policy recommendations covering a large urban area, which is also the case with the present research, but which might never be followed up by public authorities. The implementation of these recommendations depends on the access that the researcher has to public planning institutions and the openness of public authorities to implement the ideas. Secondly, the doctoral research was developed in the Netherlands, while the study areas are located in Brazil. Although the research definitely benefited in many aspects from the knowledge and resources located at TU Delft, the distance added a challenge to the work successfully connecting with the Brazilian context. Academic research in urban planning can have a societal impact not only by producing policy recommendations but also by making a stronger contribution to education. Despite the distance being a challenge, online tools can help to bridge this gap by connecting the researcher with local stakeholders, in this case in Brazil. Through these connections, this doctoral research aimed to become a useful tool for public authorities, while also contributing to planning education through its application in online courses. With this in mind, a Massive Open Online Course (MOOC) was developed during the third year of the doctoral research, with a second edition following in the fourth year of the research. The course worked as a case study of how doctoral research can generate societal impact through planning education. In this case, the course created a channel by which to maintain a close connection with international practitioners, in particular local stakeholders in Brazil, while giving back to Brazilian society part of what was being developed at TU Delft. The experience of the course is discussed in further detail here in Chapter 6, while the main results are presented in Chapter 7.

The case study of the Rethink the City MOOC, as presented in Chapter 6, has been accepted for publication in the journal, *Transactions of the Association of European Schools of Planning (AESOP)*.

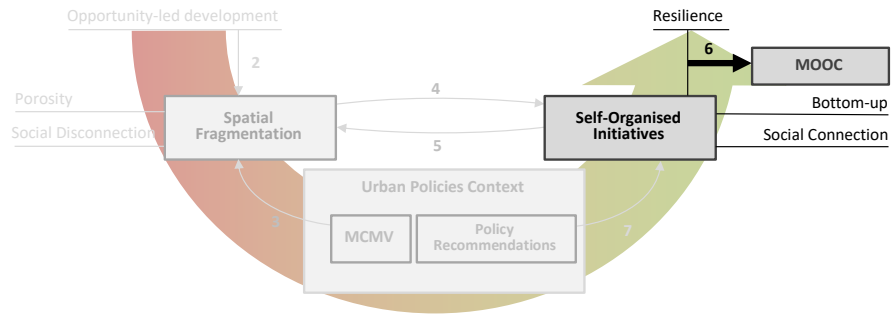


FIGURE 6.1 Conceptual relation of Chapter 6

Rethinking planning education using massive open online courses: the case of Rethink the City

Abstract

Massive Open Online Courses (MOOC) are becoming a popular educational tool on different disciplines. Urban planning education is no exception and new MOOCs are being released every year. Nevertheless, it is still not clear how this new learning experience is being developed, delivered and impacting planning education. This article sheds some light on this issue using the case of the Rethink the City MOOC organised by the Faculty of Architecture and the Built Environment of TU Delft. The course received the AESOP Excellence on Teaching award in 2017 and can serve as an example of how planning education is facing these changes. The article briefly introduces the course and develops on the challenges and results of it. Based on the course team experience on preparing and delivering the course, the article aims to contribute to the debate about online education and to support fellow academics involved on the creation of new MOOCs.

Keywords: MOOC, urban planning education, Global South

§ 6.1 Introduction: Learning About the Global South

The world has become predominantly urban in the last decade (UN, 2015). However, this fascinating change is not being led by traditional urban centres in Europe and Northern America, but by the extremely accelerated urbanisation process in emerging economies of the Global South. Several researches have pointed out the implications of this change on planning theory and practice (Miraftab, 2016; Roy, 2011, 2016; Watson, 2016). Nevertheless, not only planning practice and research will have to adapt to this new reality, but also planning education. In this sense, it is imperative to debate how planning education is dealing with this change. The same way that traditional planning tools may not be suitable to address the urban challenges of the emerging world, educational strategies will also have to change in order to better address and reach the Global South. Even though the urban challenges of the Global South have a clear global aspect, the aim is to impact locally. In this regard, a traditional classroom approach is not suitable to connect lecturers and researchers based in Europe with local students and practitioners based in the Global South. Therefore, this paper explores the opportunities and challenges of online education by presenting and making some reflections on the process of developing and delivering an online urban planning course focusing on the Global South.

The concept behind the course was to explore educational strategies that would connect the researchers from TU Delft with practitioners and urban enthusiasts from the Global South. Already from the beginning it was clear that to be able to reach a great number of participants from the Global South, the course had to be online and affordable. The option to go for a Massive Open Online Course (MOOC) seemed the best fit. The result was the creation of the Rethink the City MOOC, which attracted more than 10.000 participants.

The idea to develop this course emerged as a bottom-up initiative. PhDs candidates focusing on research about the Global South within TU Delft wanted to expose and discuss their work with students and professionals working abroad in the field. The aim was to generate a platform to connect the frontline of on-going research within TU Delft with people working in Africa, Asia and Latin America. This first idea developed into an open online course proposal, which fitted best to make this connection between researchers in TU Delft and (prospective) planners in the Global South possible. This bottom-up structure with young PhDs presenting their research made it possible to have a stronger connection between participants and lecturers. In this sense, it was easier for the participants to debate about the urban challenges of China when the lecture and discussion was led by a young Chinese researcher working in TU Delft. This model was repeated in the other cases discussing urban challenges, such as, in

Ghana, Chile or Malaysia. A bottom-up initiative lead by the PhD candidates suited very well to trigger this level of interaction and debate.

The paper is structured as follows. The first section discusses the benefits and challenges of online education in urban planning in comparison with traditional education. The second section describes the course Rethink the City in terms of learning objectives, pedagogical approaches and assessment tools. The paper finalizes with the discussion of the results regarding critical thinking, theory and practice integration, student's engagement and challenges to overcome.

§ 6.2 Online Education in Urban Planning: Benefits and Challenges

What is the Rethink the City MOOC?

A MOOC, as the name points out, aims to reach a large audience and provide open education. It was based on these two principles, great impact and affordability, that the course team started to design the course. The idea was to connect to a large audience in the Global South, trigger a critical discussion and receive feedback from the participants. Additionally, as will be later discussed, the course was also able to activate some local initiatives, which generated a local impact greater than previously expected.

The Rethink the City course was developed during a year and it was delivered on 7 weeks of intensive work. The content was divided into 3 modules based on the thematic expertise of the team in Delft. The majority of the course team is made of PhD candidates developing research on the Global South. The course was an interesting opportunity to enhance the link between the researchers in Delft and the habitants of where they conduct research. Therefore, the course focused on three urban themes relevant to the Global South: Spatial Justice, Urban Resilience and Housing Provision and Management.

As aforementioned, academic expertise from TU Delft was used to trigger debate around these thematic modules and was presented in a range of challenging case studies from Ghana, Brazil, Malaysia, Chile, and China, among others. In order to have a comprehensive understanding of the challenges in the Global South, the course provided a combination of theoretical lessons, presentation of case studies and testimonies from practitioners. On the other hand, students were requested to deliver

practical assignments in which they connect theory with their own local challenges. The aim of the course is that students develop a critical perspective about their urban environment and how to translate this knowledge into analytical tools and innovative urban solutions.

Even though the course had a high percentage of experienced practitioners, which shows the interest on the topic between more advanced professionals, the course was originally targeting undergraduate, master planning students and young planners. We considered that the open and online format would allow the participants and the staff members to be part of an inclusive educational experience in which students from the Global South could really implement in their own local realities what they learned in the course.

View of TU Delft Online Education

Rethink the City is part of a greater TU Delft strategy to improve the quality of education around the world throughout online learning. In 2014 the university presented their innovation program, which included open and online courses. Since 2014, more than 750,000 students have enrolled in TU Delft online courses (Nelson et al., 2016). The development of TU Delft courses is supported by the pedagogical model called Online Learning Experience (OLE), which strives for increasing quality. The OLE is an important guideline that serves all TU Delft online courses and generates the opportunity for knowledge and experience sharing between course teams. The OLE model has 8 course design principles that guide the development of TU Delft online courses: to be flexible, diverse, inclusive, supportive, interactive, active, contextual and innovative.

The Rethink the City team followed these principles in every step of the construction of the course. The principle of flexibility involved that students received all the 3 modules of the course at once and could choose in which order and pace to take. The course had not only a diverse team, but the activities and assessments were developed in a creative way to keep the participants motivated. Besides being free, the course also invested on the inclusion of non-english speaking communities, since it was also subtitled to Spanish and Chinese. Naturally this is a great opportunity for TU Delft to increase its internationalization and enhance its voice on the Global South debate and education. The high amount of participant from the Global South and especially from Latin America showed that there is a great potential to further develop TU Delft presence there.

With 11 PhD candidates on the staff team, the supportive aspect of the course was higher than a traditional MOOC, especially with a daily participation of the staff team on the course platform, on Sketchdrive (a platform for the assignments), on the course Facebook page and Instagram. Regarding the interactivity, the course had a

vivid discussion forum and more than 10.000 images and comments uploaded on the assignment platform (Sketchdrive). Every module had 2 practical assignments plus a final assignment, which made the learner experience quite active while learning by doing. The contextual aspect was achieved by the PhDs presenting their case studies and being complemented by 3 lectures from practitioners working on the ground, which made a balance between theory and practice. The course was so rather innovative. It was created and coordinated by PhDs candidates, which is not commonly seen on MOOCs. Additionally, it focused on alternative approaches for the urban challenges of the Global South, while using innovative tools to do so, like the Sketchdrive platform.

Benefits for Urban Planning Education

A general issue in planning education is to make links between the “transnational flow of planning ideas and practices” (Healey, 2013, 1511) and the local embeddedness of planning in its context. This tension already originates from the movement of modernist planning as a science based approach to urban and rural development and traditional local practices of planning (Healey, 2012), making that “...the worlds within which an idea arrives and has effects may be far removed from the world which generated the momentum in which an idea was given initial shape and meaning.” (Healey, 2013, 1517) This even resulted in a physical separation of modern planned cities for the colonial elite and traditional practices for everybody else (Home, 2014; Siame, 2016; Watson, 2016). As Ratnayake and Butt (2017), indicate.

The internationalization of planning practice and planning education is problematic as it inevitably raises question of the utility of comparison and the embedded nature of local knowledge. Yet these experiences potentially serve three important purposes; by requiring reflection on values, developing cultural literacy and developing a sense of participation in a 'globalized' profession. (Ratnayake and Butt, 2018, 53)

One way to address this challenge is by having local planning schools in which teachers form the linking pin between embeddedness in their local context and being active in academic debate. In a recent review of planning programmes in Europe Frank et al. indicate that almost “...all planning education programmes in Europe are residential programmes” (Frank et al., 2014, 46). Although most of European planning programme have a focus on planning in a national or European context, “a range of institutions still offer international development planning degrees at postgraduate or master level, mostly taught in English.” (Frank et al., 2014, 47) Such a distance between academic institution and local practices, has the advantage that it helps to teach ideas that provide new insights to localised practices, i.e., the “reflection on

values”, the “cultural literacy” and the sense of being part of “‘globalized’ profession” (Ratnayake and Butt, 2017, 3). Many teachers in these programmes have a true commitment to international development issues, ensuring that the courses stay relevant for these localised embedded practices. In some cases, links between international ideas and practices and local embeddedness may be improved as other reasons than professional development play also a role in choosing to study abroad (Kunzmann and Yuan, 2014). An important issue is however, that international programmes may only address a small elite of planners and planning students of the global South. Following a full academic programme is expensive, not only because tuition fees, but also based on costs of living in more expensive environments and the opportunity costs of not being able to make a living locally. These issues can be addressed by a Massive Open Online Course, which can be followed, for free from the home environment with a relatively small investment in time and efforts, but still providing opportunities to develop a reflection on values, develop planning thought and by promoting a sense of being part of a wider, global, community. These courses can be followed by novices to the field, but also by professionals that may consider such a programme, if well designed, as a method of “work-integrated learning” “in which students learn and develop knowledge and skills through a wide range of interactions with people in the workplace, and through the completion of tasks, which may or may not be prescribed by academic supervisors” (Rosier et al., 2016, 489)

Challenges and Differences from Traditional Education

On-line education presents us with several challenges. It is difficult to replace face-to-face interaction between teachers and students: there is a reason why people get together to learn. The main problem seems to be the direction of learning: in a classroom environment, the richness of interactions and the diversity of backgrounds guarantees that students learn as much from each other as from teachers, and that teachers learn also from students themselves. In the MOOC Rethink the City, we tried to cater for shortcomings by creating online environments where students could interact and learn from each other. This also allowed teachers to learn from students’ accounts and experiences. By interacting with students through short assignments based on narratives about urban problems, it was possible to create an atmosphere of mutual learning. This is a fundamental aspect of modern education that needs to be contemplated by online courses.

The diversity of backgrounds was emphasized, rather than overlooked. This is relevant because it contributed to the promotion of alternative visions on urban challenges at the local level, privileging local voices. It was essential, therefore, to find ways to let local voices speak in the course. This was done by creating a platform where students

uploaded pictures and films about urban challenges, which have been commented and discussed by others students.

This makes a fit with contemporary thought about flipping the classroom (Graham et al., 2017), which involves that teachers are facilitators, rather than dispensers of knowledge. The emphasis must be on learning not on teaching. In this perspective, students are not recipients of knowledge, but co-creators. But it also caters to the need to 'de-colonise' planning education. We are aware this is a very contentious subject. However, we believe that planning systems and planning education in Latin America, Africa and Asia follow excessively European-centred models of knowledge and education and local knowledge is generally overlooked in favour of an Anglo-American based literature (compare Paasi, 2005). We were not able to deviate from this literature in its entirety, and we cannot claim to have 'de-colonised' our planning views, but the inclusion of students' and practitioners' voices in the course gave us the possibility to expand the discussion.

Although the topic of transcultural understanding was not explicitly addressed during the course, we were surprised by the lack of friction in open forums. These forums were moderated, but we did not feel the need to intervene in the conversations that students from very different backgrounds were having in the open platforms. In short, interaction and diversity formed the basis of this course and this translated in a rather cooperative stance from participants.

The great advantage of online education is its reach, and when it comes to education about and for the Global South this is very relevant. We heard several accounts of students in Africa and Latin America who follow MOOCs regularly and hence have access to education that would be difficult to obtain in their home countries. In this sense, MOOCs have the potential to foster transnational understanding and collaborations, if they allow for participation and mutual learning. It is important to highlight that the local practitioners invited to give interviews in the course also work as academics in local institutions. Moreover, the majority of the PhD candidates presenting built their educational career in the Global South and are financed by an institution from the Global South. This makes the connection with local academics stronger than in a regular on-campus course.

§ 6.3 Course Description and Pedagogical Approach

Learning Objectives

The focus of the course on today's urban challenges of the Global South was channelled through three themes, that is, spatial justice, housing provision and management and urban resilience. The aim of the course was to contribute to current urban debate which stresses the importance to go beyond traditional strategies and policies. We discussed questions such as: Is the just city framework applicable in cities with extreme socio-economic inequality? Can community-led housing initiatives provide effective solutions for households in need? How can resilience support development instead of perpetuating a disadvantaged condition?

The purpose of the course was to progressively build-up a critical perspective about local urban challenges in the Global South. Through a combination of short theoretical lessons, presentation of case studies, testimonies from practitioners and practical assignments the participants learned how to develop a critical approach to understand their own urban environment and how to translate this knowledge into analytical tools and innovative urban solutions. Therefore, the course had mainly four learning objectives: (i) identify alternative theories in spatial justice, housing provision and management, and urban resilience, (ii) identify urban challenges in local contexts, (iii) develop a critical perspective about their own urban environment, (iv) translate knowledge into analytical tools and innovative solutions to contemporary urban challenges. By the end of the course, it was expected that the course participants were able to learn new perspectives to identify, understand and analyse one urban challenge of the Global South. The learning objectives do not focus on developing a comprehensive understanding of all urban challenges of the Global South, but rather that the participant can identify, criticize and produce solutions for one of their local challenges.

Pedagogical Approaches

TU Delft has been involved on urban planning education for decades. The Faculty of Architecture and the Built Environment is not only an international reference on the matter, but it has a tradition to be in the frontline of innovation in education. In this aspect, it seemed natural to transfer that experience on urban planning education to the virtual world.

Based on the aforementioned OLE educational model in section 2.2, the course has aimed to deliver the same quality of the on-campus courses, but taking advantage of the flexibility of the internet. The course was developed in a manner that it would be possible to debate the urban challenges of the Global South including the people that are on the ground living these challenges. The lectures from TU Delft had direct contact with participants worldwide. Taking advantage of this communication technology, the course connected TU Delft researchers to students and practitioners in 160 countries. Even though we have already been working with online education for a few years, the pedagogical experience created at the Rethink the City course was quite special, since we could extend the scale and impact of the discussions.

The course used two online platforms that were constantly fed during the course and promoted an intensive knowledge exchange experience. The first platform was based on edX and aimed for text discussion and communication between staff members and participants. This platform hosted discussions from varying topics, from fostering development but protecting the heritage to how to plan resilient cities but with low financial resources. In order to have a more vivid debate and because of the technical constraints of edX, another platform was used just to upload images, named Sketchdrive.

The two platforms were the core space for knowledge exchange. The Rethink the City staff⁸ strategically relied on this pedagogical tool as one of the main aspects of the course. In such a large scale it is impossible for the teaching staff to reply all the questions in the forum. Therefore, the team designed and moderated the two platform in order to potentiate this knowledge exchange aspect. Since we had an extremely diverse group participating from different parts of the world, the discussions were very rich and based on the participants' local knowledge.

In this sense it is important to realize some changes on the role of the lecturer on regard to such a large scale course. Besides triggering the discussions with the video lectures, the lecturers had to steer and moderate the discussions promoting this knowledge exchange between students. This differs from the traditional role of the lecturer in on-campus education, where every question or students' observation is addressed by the lecturer. On a MOOC, knowledge is not generated by the lecturer alone, but it is collective construction made by the lecturers and the participants.

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The course was supervised by Prof. Willem Korthals Altes and coordinated by PhD candidates Igor Moreno Pessoa and Luz Maria Vergara. In total 11 PhD candidates and 3 guest practitioners from outside TU Delft gave lectures.

Course Structure

As previously mentioned, the course was structured in three thematic modules (see figure 6.2). This structure offered a flexible setup in which the three modules were simultaneously available from the beginning of the course. This meant that participants had freedom to follow the course according to their own pace but also follow it according to their own thematic preference. Nevertheless, workload estimations and fixed deadlines for assignments were incorporated in order to ensure appropriate allocation of time per module and define main stages in the course.

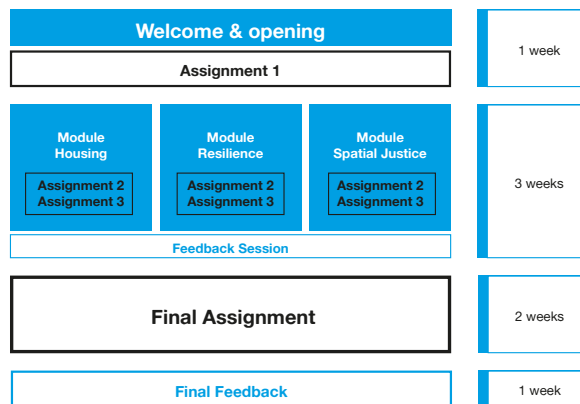


FIGURE 6.2 Course structure

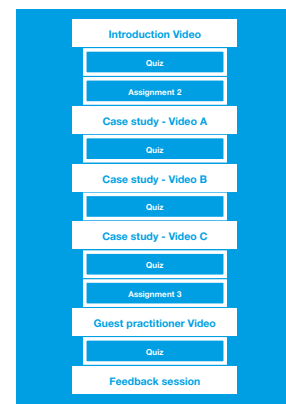


FIGURE 6.3 Module structure

Therefore, during the 7 weeks the course was chronologically ordered in four stages, starting with an introduction and opening section (week 1), the three modules (weeks 2 to 4), the final assignment (week 5) and the closure of the course with the final feedback (week 7). Apart from the general structure, each module of the course followed the same structure: first a more comprehensive theoretical presentation was given by a professor from the faculty; following that a series of three lectures presenting cases studies were given by PhD candidates; the third part of each module would be the lecture of a local practitioner exploring the challenges faced when implementing the theory and research presented. Additionally, during the modules, the students had to do practical exercises, where they would have to engage in their local context exploring an urban challenge mentioned on the lectures (see figure 6.3).

The thematic selection of the modules was based, firstly, on the inclusion of topics that address the most contingent urban planning challenges for the Global South, and secondly, on the academic expertise of TU Delft lecturers. This led to the creation of three modules addressing spatial justice, housing and resilience. The module of spatial justice analysed concrete cases of spatial justice and injustice in the Global South and discussed how contemporary theories apply. It aimed to address issues of spatial justice in the booming metropolises of the South, where spatial fragmentation and inequality are extreme (Pessoa et al, 2016), which emphasis is different from the issues of spatial justice in the Global North.

The module of housing discussed the role of the State, the society, the market and third sector in housing policies, exploring opportunities for ownership and rental models in different contexts. Some topics of interest were social innovation in housing, collaborative housing approaches and the role of third sector organisations. In the module two different angles of the topic were discussed. On the one hand the relevance of alternative models that have flourished in the last decades to solve the increase demand of new houses for specific groups in the society, and on the other hand, the new challenges in the management of the increasing housing stock in order to avoid quick neighbourhood deterioration and devaluation (Vergara et al, 2015).

Finally, the module of urban resilience introduced students to the concept and shed some light on case studies of resilience and risk management that apply alternative approaches to the topic. The module aimed to go beyond the simplistic notion of resilience as a struggle for survival, which is based on the idea that communities in the emerging world are more resilient since they have more complex social, economic and environmental challenges than the Global North. In contrast, this module explored the possibilities of the Global South as a fertile ground to conduct research on how to use these complex threats as an opportunity to build better urban environments. Table 6.1 provides an overview of the lectures per section.

TABLE 6.1 Lectures outline

Section	Lecture title	Content description
Introduction	Rethink the City: an introduction to the content	- Introduction presenting the main goals of the course and the approach towards the Global South.
	Rethink the City, but with care	- Discussion of methodological and ethical problems of exporting ideas about planning, especially in countries of the Global South
Spatial Justice	Spatial Justice. What is it and why should we discuss it?	- Introduction to the concept and its theoretical underpinning. - Presentation of spatial justice as a framework for decision-making and action
	The relevance of human rights for planners	- Definition of human rights and their relevance for the practice of urban planning. - Discussion of the differences between negative and positive rights and how this impacts on the built environment
	Diversity in the city. Promises and pitfalls	- Definition and analysis of the concept of diversity through a critical lens. - Relevance of diversity in urban policy, identifying promises and pitfalls.
	Public space and Spatial Justice	- Interrelation between digital media and physical spaces in contemporary societies, focusing on social media as tool for demonstration. - Presentation and analysis of the Bersih movement in Malaysia.
	A practitioner's view: Quito, Ecuador	- Interview with a housing planning and advisor for the Municipality of Quito, Ecuador. - Discussion of main challenges to achieve a more sustainable and just city such as participation, inequality, housing provision, informality and gender unbalance.
Housing Provision and Management	Housing in the Global South. An introduction	- Background elements to understand the main issues that countries in the Global South are facing with regards to the provision and management of social and affordable housing today. - Presentation of main challenges and description of the elements needed for a comprehensive housing policy.
	Affordable housing in China: the role of public and private sectors	- Evaluation of the trends of housing development in China between 1949 and 2015, introducing the dynamic roles of the state, the local municipalities and the real estate developers - Presentation of three current initiatives: Governmental developers, Urban villages and Housing rental companies.
	Challenges of public housing management. The case of local authorities in Ghana	- Description of the State role in the production and management of affordable housing in Ghana and presentation of major weaknesses in Ghana's public housing management. - Discussion and analysis of opportunities for reform of the sector in order to achieve improved quality.
	Social Housing in Chile. Lessons from a homeownership perspective	- Description of housing policies based on ownership, presenting the new challenges regarding the quality, maintenance and management of this housing stock. - Discussion of opportunities for bottom-up approaches and the inclusion of new actors in housing policies.
	A practitioner's view: Co-housing project in Delft, The Netherlands	- Case of community-led initiative of housing provision presented by the architect of the project. - Visit to the building complex and conversations with residents.

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TABLE 6.1 Lectures outline

Section	Lecture title	Content description
Urban Resilience	Introduction to Urban Resilience	<ul style="list-style-type: none"> - Urban Resilience definition, origin and theoretical approaches - Discussion of the implications for urban planning and management
	Resilience thinking when planning in the South	<ul style="list-style-type: none"> - Theoretical perspective on resilience thinking in planning for the Global South. - Discussion of common challenges related to planning for resilience in the Global South.
	Exploring resilience possibilities	<ul style="list-style-type: none"> - Use of mapping as a tool to understand complex spatial problems and to help populated regions to be more resilient - Analysis of the spatial development of the Pearl River Delta in China using mapping techniques.
	Resilience in transition. Changing water values in delta cities	<ul style="list-style-type: none"> - Discussion of resilience in the context of urbanizing delta cities and the integration and balance of diverse values of water. - Relevance of resilience thinking with the understanding of history and the local context by using a Chinese case study. - Discussion of elements for future planning strategies in changing contexts
	A practitioner's view: Santiago, Chile	<ul style="list-style-type: none"> - Interview with the Deputy Resilience Officer of Resilient Santiago, a project created to improve the resilience capacity of Santiago, Chile. The project is part of the programme 100 Resilient Cities from the Rockefeller Foundation. - Presentation of the challenges faced in the creation and implementation of such a comprehensive resilience project.
Closure	Reading the City	<ul style="list-style-type: none"> - Overview of the process of understanding and representing an urban environment. - Presentation of four-steps process of design thinking: description, interpretation, reduction and abstraction.
	The New Urban Agenda: a roadmap for fair and sustainable cities around the world	<ul style="list-style-type: none"> - Presentation of the New Urban Agenda 2016-2036 - Discussion of the role of planning professionals, academics and urban activists in implementing the new agenda.

Assessment

Assessment of student's work is one of the challenges that remains unsolved in MOOCs, especially with regards the value of using automated grading software, the validity and consistency of the peer assessment and how to avoid fraudulent practices (Hew & Cheung, 2014).

Acknowledging these limitations, we highlight two main challenges regarding assignments and assessment that were frequently discussed during the planning of this course. First, it is important to acknowledge the impossibility to offer individual assessment to students given the high number of participants. Second, the design of a fair grading system was needed, which establishes a cutting line for those participants

who approved the course and wanted to pursue a certificate. Furthermore, the grading formula should be clear enough to avoid misinterpretations. Therefore, assessment and assignments were carefully planned considering that the course page should incorporate these requirements beforehand.

The course had two main types of assignments: quizzes and practical assignments. The quizzes were placed right after the lectures and had the purpose to check the understanding of the videos. Quizzes were automated graded and the participants could immediately check if they answered correctly. The practical assignments had the goal to help students to understand the main topic discussed by presenting applied examples. Each module considered two theme-based practical assignments in which participants had to upload a combination of visual content and an explanatory text on Sketchdrive. These assignments were self-assessed by the participants using either a checklist or a rubric. Besides the theme-based assignments, the course considered an introductory (and optional) assignment and a final assignment. While the first one was designed to foster the participation at the beginning of the course, the latest one consisted on a visual essay which had to offer a critical perspective on the theories and challenges explored during the course. The assessment of the final assignment was through a peer-review process using a rubric. In order to successfully pass the course participants had to fulfil three requirements: approve two out three modules, do the final assignment and have a final grade equal or more than 60%.

Some measures were taken to deal with the challenges mentioned. First, automated grading was confined only to the quizzes, limiting their weight in the total grade of the course. Second, the rubric was consistently used first for the self-assessment and then for the peer-assessment, reducing mistakes when it was applied to evaluate the peers. Third, the use of a multi-criteria requisite to pass the course in order to reduce fraudulent practices. Finally, a higher weight of the final assignment in the total grade, which created a natural filter for those students who were auditing the course and the students that wanted to obtain a certificate.

§ 6.4 Results

Critical Thinking

The course encouraged learner's critical thinking through the lectures, assignments and instructor's feedback. Students were progressively guided from the theory to the real-life challenges and from a descriptive perspective to an analytical perspective, preparing them to analyse their own realities with critical lenses. One of the main goals was to tear down prejudices and general approaches which do not contribute to a comprehensive perspective about the urban challenges of the Global South. One example is the inclusion of the term Global South at the beginning of the course, as the umbrella to refer to regions and countries that face, to some extent, similar urban, social and political challenges. It was a deliberate decision of the course team to avoid terminology such as developing countries or third world, in order to provide a concept richer in terms of political and empowerment connotation as well as less hierarchical than its predecessors (GSSC, 2015).

Similarly, the course reflected on the relationship between global theories and local embeddedness as two different layers to understand the challenges and the solutions. The students were confronted with different case studies as examples of problems and opportunities of regions in the South. They were encouraged to learn and extract lessons from these cases, but also to be aware about local realities and contextual variables. The subsequently step was to make students get in touch with their own realities regarding spatial justice, housing and resilience. To do so, practical assignments encouraged them to systematically analyse their own city or neighbourhoods from different topics, understanding the complexity of their urban challenges, but at the same time, foreseeing solutions from the planning perspective. At the end of the course, students were more aware about the nature of the urban challenges selected but also about the solutions to tackle them. These solutions were conceived from the local perspective, transforming the available resources into opportunities and thinking 'out of the box'.

Other important elements on the development of critical thinking were the peer review process and the spontaneous interchange between students in the two platforms of the course. These discussions referred to more complex issues while the course was in progress confronting the theory with their own questions. The staff participated in the discussions, answering the questions and opening new debates, but the same students were able to provide valuable and relevant feedback for their peers. An interesting example was the discussion started from a male student from Egypt about the

meaning of gender discrimination in the use of the public space. The discussion which started as a question, evolved to a rich debate in which female and male students from different countries contributed with their own perspective, interchanging their own understanding and experiences about the topic. At the end of the course, the student that started the question did his final assignment on this topic, opening from him a new perspective to understand the right to the city and the use of the public space.

Theory and Practice Integration

The course combined the presentation of the most up-to-date theoretical debate and the academic research that were using these theories with testimonials from practitioners that were implementing on real cases this debate. The course tried to not only have a balance between theory and practice, but also to connect them in each thematic module. This combination provided an interesting learning path in which participants could understand main barriers and difficulties but also successful elements when frontline theories are used in practice.

Additionally, the practical assignments requested a real engagement of the participants to apply the theories in their local context using a critical lens. After the course, students were more aware about the complexity behind the urban challenges in the Global South. They as future and, as many working professionals followed the course, actual urban planners, urban designers or architects, have learned the risk of adopting foreign solutions without questioning the impacts at the local level or using general and standard approaches to solve local problems.

As aforementioned in the introduction, surprisingly we had a large group of working professionals taking the course (41% of the participants). One of the positive outcomes of this high number of working professionals was the knowledge exchange between them and the undergrad students. It was possible to observe constant discussions on the online platform between more experienced professionals and bachelor students. We believe that this connection with planning professionals was extremely fruitful to the students. Additionally, we also had lecturers given by practitioners on the field showing real case studies. As witnessed in some testimonials after the end of the course, the practitioners' lectures were very well received by the students.

Student's Engagement and the Creation of an Online Community

In the field of Online Education, scholars have pointed out the relevance of establishing a collaborative learning community between students and instructors as one of the 'essential components for improving the quality of online courses and students outcomes, satisfaction, and learning' (Kurucay & Inan, 2017). The role of building a learning community is relevant in order to address elements of the traditional education such as face-to-face classroom engagements or fieldworks which are difficult to replicate online (Shapiro et al., 2017).

In this sense, the great impact of the course attracting more than 10.000 students represented a positive starting point for this purpose, but it also entailed new challenges to the course team with regards the management of this community. By the end of the course, it had between 15% and 20% active students, a high number for Massive Open Online Courses. This definitely required a closer support of the whole team to give feedback and moderate the online forum. In total, we had 11 staff members replying and solving daily issues on the platform. This not only required an extensive coordination, but also some personal dedication, since the forums were extremely active especially on the weekends.

The course forums and Sketchdrive provided the platforms to consolidate an online community. They represented the main space of knowledge exchange and interaction with the course team, but also between participants, which intensively used the course platforms to discuss their local urban challenges with peers in different parts of the world. While 1500 students participated in the forum, 10.000 visuals were posted and commented on Sketchdrive. This exchange was one of the strengths of the course, which was highly appreciated by the participants in the post-course survey. Students highlighted 'the connection between students and the feedback videos', the existence of different platforms 'to give our opinion to others work and to have so many people of the course concerned on the different assignment and our comments', and 'the exchange of opinions between people who lives around the globe in very different circumstances and conditions'.

Additionally, the course coordinators used social media to complement the promotion of the course, but also to create informal spaces of interaction beyond the edX environment. The Facebook page rapidly became a key tool to start building-up this community before the course opening. Now, with almost 2000 followers, it is the main communicational channel with the community considering that the course has finished and edX platform is closed. Therefore, one of the main challenges remained is to keep this community captive and engaged in new versions of the course or in future projects of the Faculty of Architecture and the Built Environment regarding urban planning in the Global South.

Challenges to overcome

The course demonstrated several positive aspects, but also some pitfalls. Starting with the more challenging side, already on the development of the course it was visible that the tools offered on the edX platform were not sufficient to promote the learning experience of disciplines that require more visual and spatial content. The use of a second online platform to upload and display the images sent by the participants was fundamental to go beyond the learning experience of watching videos and debating on text. Urban planning even on a virtual environment needs maps and images. Sketchdrive was a positive asset to overcome this technical limitation of edX; however, there is a natural loss to host a course on more than one platform. This limitation will definitely be overcome as edX and other MOOC online platforms develop to better support courses dependent on visual aspects, like for example architecture, urban planning, industrial design and others. Nevertheless, on the platform used, it is important to acknowledge that any urban planning online course will have to reflect on how to manage on the virtual environment the embedded visual aspect of a planning course.

Another point that the experience of the Rethink the City can contribute to understand this educational phenomenon is the lack of control of the participants' profile. Even though the designed strategy aimed for young students and urban enthusiasts, the course attracted many experienced professionals. This is part of being an open course. Nevertheless, the Rethink the City showed that it is important to have a course structure to accommodate this rather unpredictable factor. To stimulate the knowledge exchange aspect of the course was absolutely fundamental on this regard. More experienced professionals can be an important asset on the forum discussions.

§ 6.5 Conclusions

Massive open online education is a relatively new phenomenon. The two major platforms hosting MOOCs in English were founded only in 2012 (edX and Coursera). Therefore, we are still trying to grasp the impact of this new learning method and also trying to identify how to get the most out of it. In planning education this is even more recent. It is still not clear how this step from the physical world to the virtual one will happen in a discipline so connected to spatial references such as in urban planning. Notwithstanding, despite being a novelty and having many uncertainties, it is clear that there is no step back. Online education is here to stay.

Furthermore, on the Rethink the City experience, knowledge exchange was not only a strategic tool to manage a diverse and massive group of participants, but it became the core educational aspect of the course. This is quite unique on planning education, especially in Europe where planning courses are still very “residential” (Frank et al., 2014). The capacity to break the boundaries of the local context and connect it to a global scale is absolutely unprecedented. In this way, the transfer of a planning course from the physical realm to the virtual one is already a step towards a less residential planning education. Nevertheless, it is vital to approach this global scale as an opportunity to promote knowledge exchange and not a unidirectional educational experience from the lecturers to the participants.

Moreover, the change of scale from local to global also brought insights on the possible impact of an urban planning MOOC. Having 10.000 participants from 160 countries gives a completely different dimension of the societal impact of a planning course. A MOOC is not forming new urban planners, but it has the capacity to influence a diverse and broad range of people. The course was designed to foster critical thinking, to provide grounded examples of theory and practice integration and, despite the challenges of the massive participation, to create an online learning community even beyond the edX environment. Throughout the delivery of the course, it was already possible to witness how participants were taking practical steps to implement in their local context the knowledge produced in the course. On this regard, as aforementioned in section 4, the final assignment was the materialization of this knowledge transfer from theory to practice.

As the aim aforementioned in the introduction was to create a local impact connecting the researchers from TU Delft to urban enthusiasts of the Global South, the experience of the Rethink the City MOOC seemed successful. Not only because it manages to extend and enrich the debate being done in TU Delft with a global audience, but also because it demonstrated that a different educational approach with higher exchange and knowledge co-creation is possible. This has a special meaning in the Global South context, since the access to low cost good quality higher education can be a challenge. Additionally, it also points out to a possible change on the role of higher education institutions, from being less of a centre of knowledge production to more of a moderator and virtual host of a collective knowledge exchange process. The broad and open discussions of topics like the right to the city, the access to a good public transport system, gender discrimination or spaces of protest, for example, can have a great local impact in places where these debates are not that disseminated.

Even though it is still hard to measure the societal impact of the Rethink the City, based on the participants’ testimonies it seems safe to affirm that the course had the capacity to influence much more people and places than any other course that the staff team

was involved. The effects of such a massive and open planning education is still not clear; however, the Rethink the City MOOC had the opportunity to experience on first-hand the potential of a truly global urban planning course.

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