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The final definitive version in Case Studies on Transport Policy is available online at:

<https://dx.doi.org/10.1016/j.cstp.2020.04.006>

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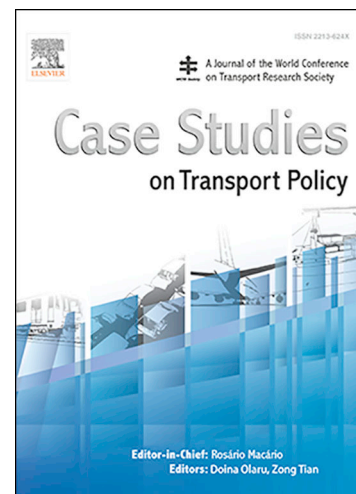
Re-enacting the mobility versus accessibility debate: Moving towards collaborative synergies among experts

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PII: S2213-624X(19)30094-X
DOI: <https://doi.org/10.1016/j.cstp.2020.04.006>
Reference: CSTP 442

To appear in: *Case Studies on Transport Policy*

Received Date: 28 March 2019
Revised Date: 19 February 2020
Accepted Date: 16 April 2020



Please cite this article as: A. Ferreira, E. Papa, Re-enacting the mobility versus accessibility debate: Moving towards collaborative synergies among experts, *Case Studies on Transport Policy* (2020), doi: <https://doi.org/10.1016/j.cstp.2020.04.006>

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Re-enacting the mobility versus accessibility debate: Moving towards collaborative synergies among experts

Abstract

The benefits of the accessibility approach in transport planning are well-known and widely documented in the literature. However, in practice, most transport planning processes are focused on improving mobility and not on improving accessibility. Recent research has made it clear that what is blocking the accessibility approach are not the technological dimensions of transport planning, or the lack of knowledge about how to perform accessibility planning in practice. This approach is being blocked instead by institutional barriers. This article critically identifies some of these barriers. Adopting a cross-disciplinary and international perspective, two rounds of in-depth interviews with accessibility experts were conducted. This allowed gathering insights not only about the institutional barriers to the adoption of the accessibility approach in transport planning practice, but also about possible pathways to make accessibility a more central concept in decision-making.

Keywords: accessibility; institutions; barriers

1. Introduction

This article informs the *accessibility approach* to transport policy, planning, and investment (Cervero, 1996, Bertolini et al., 2005, Handy, 2002, Lucas et al., 2016, Gutman and Tomer, 2016) by means of critically analysing some of its institutional implementation barriers and how to overcome them. This approach will be referred to either as the ‘accessibility approach’ or as ‘accessibility planning’. Planning practices based on this approach are concerned with improving the extent to which places, events, activities and social contacts are within range for as much people as possible. In line with this understanding, accessibility is defined as the capacity to reach a place, event, opportunity or social contact *in a way that fulfils what people need*. For insights see Capron (2002), Ferreira and Batey (2007, 2010), and S.E.U. (2003).

Conversely, practices based on the ‘mobility approach’ primarily focus on the extent to which individuals move and how they do it. In our view, there is nothing logically flawed about adopting this approach (as sometimes implied by some authors), if the assumption that more mobility means more accessibility is not made. In many instances it is assumed that if there is more travel mobility, there is more accessibility, and so mobility can be seen as a proxy variable for access. Research shows that this assumption is misleading, as these two concepts are not interchangeable and can lead to different consequences when put into practice (Levine et al., 2010, Grengs et al., 2010). Placing emphasis on mobility instead of on accessibility can lead to the paradox of people spending more time, money and energy travelling while experiencing decreasing accessibility levels (Ferreira and Batey, 2007, Handy, 2002, Litman, 2003).

The potential benefits of accessibility as a guiding concept for planning are significant (Litman, 2003, Straatemeier and Bertolini, 2008, Bertolini et al., 2005). Implementing accessibility-based performance measures can allow decision-makers to pursue more coordinated objectives around economic development and environmental justice, social equity and urban form (Lucas, 2004, Lucas, 2012, Lucas et al., 2016, Lucas, 2006). It can play a key role in supporting job markets as well (Zhao and Lu, 2010, Levine, 1998).

Even though the accessibility approach is acknowledged as fundamental for planning, practitioners still struggle to implement it. As we will see, several implementation barriers exist. As a result,

mobility-oriented transport planning tends to be more dominant than accessibility-oriented planning in local authorities, government agencies, and consultancies. This has been depicted as a global phenomenon (Levine et al., 2017, Boisjoly and El-Geneidy, 2017a, Proffitt et al., 2015).

This article proposes that mainstreaming accessibility planning is possible and can lead to significant benefits. To achieve this, the adoption of evolutionary principles is recommended: the accessibility approach should not be seen as an alternative to the mobility approach, but as a step forward based on it. The accessibility approach includes all the merits of the mobility approach while building strength on new theoretical understandings and technologies that have been emerging in the recent past. The classical battle between pro-mobility and pro-accessibility experts would benefit from being replaced by a cooperative interaction between them, as these two approaches are in fact synergistic. To achieve this cooperative interaction, we propose that it is necessary to consider the institutional barriers that prevent the implementation of the accessibility approach.

We define institutions as the formal and informal rules and organisational structures that guide both collective and individual actions within a given professional and political environment. As such, institutions are key to understand how transport planners understand their roles, how they act, and how decisions are made by them (Williamson, 1994). These rules and structures also influence the nature of transport systems in place and how they are managed (Rietveld and Stough, 2005, Levinson and King, 2019).

The article is structured as follows. Section 2 discusses the relevance of the research in view of the literature on accessibility planning and its barriers. Section 3 briefly describes the methodology used. Section 4 identifies the institutional barriers to the implementation of the accessibility approach in planning practice and section 5 discusses pathways to mainstream accessibility planning. Both sections 4 and 5 are based on the empirical work explained in section 3. Concluding remarks are drawn in section 6.

2. Theoretical background: the accessibility approach and its institutional barriers

The mobility and the accessibility approach differ in very important and even critical ways. In practical terms, the traditional mobility approach is primarily aimed at promoting physical travelling. It places its focus on the enhancement of transport infrastructures, services and technologies. Increased transport network speed and capacity are a common result of its initiatives. Conversely, the accessibility approach is aimed at increasing the ability of people to engage with social contacts, participate in activities, and reach services; as well as increasing the ability of organisations to engage with institutional and business partners, markets, and resources. An increase in accessibility can be achieved by means of enhanced *mobility* conditions, but also by means of *proximity* by reducing the physical distances between where people and organisation are located and what they might need or want (Bertolini, 2017). As a result, accessibility planning tends to encourage mixed land uses and other strategies capable of reducing both travel distances and the frequency of trips (Ferreira and Batey, 2007, Handy, 2002).

The second key distinction to be made between the two approaches concerns the logic behind their respective measures of success. The mobility approach is focused on determining the extent to which people travel and the impedance associated with travelling. For this, it uses indicators such as number of travellers, travel time, travel length, speed and cost of travelling. As a result, the success of transport schemes is likely to be measured in terms of increased number of travellers, reductions of travel time and travel-related monetary costs, among other possibilities. Conversely, accessibility is an attribute of people or places. The accessibility approach measures the effective ability of people to reach what

is needed or desired by them or, conversely, the extent to which important places, organisations and service providers (e.g. hospitals, schools) are sufficiently easy to reach by the people who need them. In this sense, the accessibility approach is more directly focused on promoting and measuring the effective satisfaction of needs and aspirations. In contrast to this, the mobility approach is essentially focused on promoting mobility per se.

Due to these two major differences, the accessibility approach is widely recognised as being particularly suitable to facilitate sustainable integrated transport and land use policies (Preston and Rajé, 2007, Handy, 2008, Geurs et al., 2012, Ingram, 1971, Hansen, 1959, Pirie, 1979, Pirie, 1981, Wachs and Kumagai, 1973). Nevertheless, many studies demonstrate that the accessibility approach still plays a rather secondary role in transport and land use planning practice and that the so-called 'implementation gap' remains significant (Halden, 2011, Levinson and Gillen, 2005, Proffitt et al., 2015, Straatemeier, 2008, Curl et al., 2011). A relatively large body of literature has been produced with a specific focus on barriers to the implementation of sustainable transport (Banister, 2005, Curtis and Low, 2012), land use and transport policy integration (Hull, 2008, Curtis and James, 2004), and Transit Oriented Development (Thomas and Bertolini, 2015). However, only a limited number of studies explicitly address accessibility planning barriers. Their main insights are presented below:

- Accessibility is a concept that can be defined in several ways and measured using a range of different indicators. These indicators can display significantly diverse levels of complexity. This can lead to some confusion and potentially to lack of understanding, and even conflicts, among stakeholders;
- There is a mismatch between the skills that transport planners typically have (as they tend to be focused on models, technologies, and physical developments) and those necessary for conducting accessibility planning processes (particularly understanding people and their needs). It is therefore likely that some technically-oriented transport professionals develop at least some resistance to the accessibility approach;
- Promoting certain urban developments (consider for example profitable enterprises in peripheral locations) might conflict with enhancing accessibility levels and therefore invite dismissing the accessibility approach;
- Promoting accessibility might conflict with promoting economic growth because there is no contribution to economic growth when people walk while there is when people use motorised means of transport;
- The accessibility approach is better aligned with redistributive economics while the dominant economic tradition in (transport) planning is typically more focused on facilitating economic growth than on facilitating redistributive justice (Halden, 2014, 2011, 2009);
- A disconnection exists between the accessibility tools that developers tend to create and the tools that users tend to want (te Brömmelstroet et al., 2014, Hull et al., 2012, te Brömmelstroet et al., 2016b, Silva et al., 2017, Papa et al., 2017). Final users are asking for transparent and user-friendly tools, instead of complex black-box tools (te Brömmelstroet et al., 2016a, te Brömmelstroet and Bertolini, 2008, te Brömmelstroet and Bertolini, 2011, Papa and Coppola, 2019);
- There is a lack of the required datasets to assess and monitor accessibility levels, without which conducting accessibility planning processes becomes difficult (Boisjoly and El-Geneidy (2017b);
- The separation of urban and transport planning organisations is a common feature and constitutes a major barrier for the implementation of the accessibility approach, which

requires coordination among these entities (Gutman et al., 2017, Papa et al., 2016, Levine et al., 2019);

- A large disconnect between capital intensive transport infrastructures and high-level urban planning affects governmental capacity to pursue accessibility policies at the local level (Rode and da Cruz, 2018).

These insights offered by previous studies about why the accessibility approach is struggling to become more established are highly valuable. However, they have some limitations as they are based on specific national perspectives and contexts. Additionally, most of them are not specifically focused on mapping out, critically analysing, and exploring how to overcome the barriers to the accessibility planning approach specifically resulting from institutional issues. Their focus was typically broader and not exactly focused on this aspect. The present study aims at partially filling this knowledge gap and stimulating debate on the topic, and for that it adopts an international and cross-disciplinary perspective.

3. Brief notes on methodology

As explained, the aim of this study was twofold. First, to map out the major institutional barriers to the implementation of the accessibility planning approach. Second, to identify possible strategies potentially capable of (at least partially) removing these barriers. As a result, the present study was not aimed at generating some form of consensus. It was, instead, a study of a more exploratory nature where gathering a rich and stimulating body of creative opinions was the desired outcome. After critically analysing possible methodological options, the authors adopted a qualitative method loosely inspired on the Policy Delphi protocol (Turoff, 1970, Linstone and Turoff, 2011). The method adopted required the participation of highly qualified experts with deep understanding about the subject area in successive rounds of in-depth interviews. This method is explained below.

Following recommendations from the Policy Delphi literature, we selected a limited number of interviewees. A mix of professional profiles was targeted. In total, eighteen interviewees were included in the final sample. These were people with strong expertise in substantially different national and planning-related organisational contexts: six of the respondents were from North America, two from the Netherlands, two from Australia, three from the UK, one from Germany, one from Italy, one from France, and two from South America. The interviewees work at different planning scales (local, regional and national), sectors (land use, transport and finance), and organisations (private and public). We included academics working in leading universities, and professionals working in consultancies with international experience, but also in local authorities, in research centres, and in non-profit advocacy groups. Importantly, we included budget professionals and transport economists because those professionals are rarely involved in accessibility planning studies. All interviewees currently work in the field of accessibility planning and have an average work experience of fifteen years. The individuals approached were selected from three groups of potential participants. These were, first, highly cited academic authors who were previously identified during the literature review. Second, participants in international research projects on the topic of accessibility planning. Third, noteworthy individuals suggested by the experts already interviewed (snowball technique).

The method used to gather data entailed two rounds of in-depth interviews. The first round focused – and mirroring the research objectives – on identifying institutional barriers to the accessibility planning approach and on exploring possibilities to overcome such barriers. An extensive review of the literature about accessibility planning and its barriers was conducted in preparation for this first

round of interviews. Note that, prior to the interviews, a demographic survey was e-mailed to the experts who agreed to be interviewed. The survey requested information about their academic experience, employer organisation characteristics, and experiences on accessibility planning. This made sure that we were recruiting individuals with detailed knowledge about and experience with accessibility planning. We then analysed the qualitative data obtained through this process, while gathering data about the participants' specific experience and involvement in accessibility planning. This analysis focused on systematising the data so that it could be coherently and effectively used in the second round of interviews.

The second round of interviews adopted the following general structure. The interviewees were presented to the overall insights gathered during the first round. This allowed them to react and build upon those insights. In a limited number of cases, and when considered relevant, the same interviewees were approached a third time so that they could inform and react upon new insights obtained during round two itself. The purpose of this second round of interviews, therefore, was to provide panellists with the opportunity to reflect and build upon their original answers while reacting to new information. The interviews were critically analysed once more when round two was completed. This analysis aimed at converting the body of information gathered in a structured set of ideas organised around a limited number of sub-themes. These sub-themes resulted from a process of grouping ideas by content similarity. The sub-themes were: *i)* linguistic issues; *ii)* the costs of the accessibility-planning shift; *iii)* fragmented administrative and governmental frameworks; *iv)* pro-mobility established powers and traditions; and *v)* the influence of mainstream economics on transport planning. These will be used in the next section to present the results.

4. Barriers to the accessibility approach: An institutional perspective

This section presents the results of the expert interviews. The results were clustered into five sub-themes, as explained in the section above. Note that, in some cases, the inputs offered by the interviewees are supported by academic references to better connect the gathered insights with (and to better build upon) the existing body of knowledge on the topic.

4.1 The linguistic problem

As clearly pointed out by several interviewees, one of the key problems associated with the accessibility approach derives from the meaning of the term *accessibility* itself not being necessarily consensual. First, because there is a diversity of manners through which accessibility can be defined and measured and this is prone to create substantial confusion among planners. Second, because the term accessibility is strongly associated with the ability of disabled people to enter given venues and move about. This is an important concern in the accessibility planning field, but there is much more to it. Previous academic work by Halden (2011) generally supports and gives strength to these findings.

4.2 The costs of the accessibility-planning shift

Most interviewees argued that the benefits of the accessibility approach are well accepted by planners and their employing organisations. However, they were also of the opinion that practitioners understand as easier both in technical and economic terms to adopt the mobility approach. They explained why that occurs: the accessibility approach typically requires more sophisticated skills and more comprehensive and expensive datasets. Indeed, datasets required in traditional mobility-based modelling processes are just focused on relatively simple information about origins, destinations, travel demand, flows, and impedances. Accessibility datasets tend to include not only that

information, but also extra information that is harder to handle, for example (based on Ferreira and Batey, 2007):

- relationship between supply and demand (e.g. whether venues are under excessive demand pressure to accept new clients);
- nature and quality of the services provided (e.g. whether a health centre offers just a few or multiple health care services; or whether restaurants provide poor or good quality meals);
- time-related issues (e.g. opening times of a given shop; or the waiting time associated with a desired delivery service);
- perceptions held by the population or certain social groups of relevance (e.g. whether a given venue or area is considered safe by women);

According to experts working in local authorities, the extra costs of the accessibility approach constitute an important implementation barrier in public organisations (but also in small transport consultancies). Many of these organisations struggle with lack of funding for upgrades on planning tools and for acquisition of comprehensive datasets. In the case of public bodies, any change that requires increasing costs must be legitimated and this can require difficult and time-consuming bidding and political bargaining processes. In the case of small private companies, upgrades of this nature can be even more challenging due to their limited economies of scale.

Availability of financial resources is therefore likely to determine which local and national authorities can adopt accessibility planning tools. In other words, accessibility planning can easily become (or perhaps is becoming already) the privilege of wealthy organisations. Confirming this, transport for London has a powerful online accessibility tool platform and runs an accessibility based decision-making process (TfL, 2015), but this is an exception. Poorer authorities or small companies might have to stick to traditional transport planning approaches exclusively based on mobility metrics. According to experts working in South America, the financial strains experienced by many local authorities and small consultancies located in the Global South make this a significant barrier for them as well.

This was perceived by interviewees as an unfortunate situation because accessibility planning, even though typically more expensive and complex in terms of process than mobility-oriented planning, is likely to lead to the development of policies that are not only cheaper both in the short- and long-term, but also more cost-effective. This perception is confirmed by academic research (Yusuf, 2016).

4.3 Fragmented institutional frameworks

The interviewees with expertise on finance-related and governance subjects raised an insightful point about why accessibility planning is frequently underfunded. The accessibility approach requires coordinated actions across departments and units concerned with land use planning, housing policy, transportation planning and regulation, financing of investment and operations, and pricing and cost recovery (Rode and da Cruz, 2018). This is difficult to achieve as it corresponds to a high level of institutional interaction and organisational complexity. As local authorities are unlikely to provide financial support for schemes that are not aligned with policy priorities shared among them (Banister, 2008), organisational fragmentation can therefore constitute an important barrier for accessibility planning (Rode, 2018).

The experts working in consultancies and private companies outlined a similar issue. Small consultancies tend to focus only on specific markets (e.g. traffic analysis). In the case of larger companies, their departmental organisation logic does not tend to allow large-scale cross-sectorial interactions. Often there is no requirement for different departments to collaborate closely on projects concerning transportation, land use, social equity, and budgeting. While transportation

departments tend to focus more on vehicles and traffic flows than on individuals and their accessibility needs, urban management professionals tend to neglect how residential, commercial, and industrial land use policies may impact upon individuals' travel decisions.

4.4 Pro-mobility powers and traditions

Several interviewees pointed out that pro-mobility powers and corresponding traditions constitute a crucial barrier to mainstream accessibility planning. Indeed, contemporary transport planning evolved from a technical tradition based on civil engineering, mechanical engineering, and economics. As a result, important amounts of public funds have been and continue to be allocated to organisations responsible for building transport infrastructures and technologies. These organisations have gained significant wealth, social and political recognition and power to influence public investment decisions. Examples of these organisations are road, railway and airport construction and management firms; and car, trains, ships and airplane manufacturers. Importantly, the success of these organisations is not measured in terms of accessibility, but in terms of mobility. For example, for an airport management firm, a relevant metric is the number of passengers per year passing through their airport facilities – a clear example of a mobility metrics.

4.5 The influence of mainstream economic science in transport planning

Experts in transport appraisal observed that traditional economic analyses of transport investments, such as the Cost-Benefit Analysis method (henceforth CBA), primarily use mobility indicators such as travel time savings to estimate the economic value of alternative transport schemes. This situation might change, as research shows that it is possible to numerically measure accessibility gains and that these can be equated to economic benefits (Geurs and van Wee, 2004). However, there are still unsolved difficulties associated with determining the monetary value of accessibility in ways that can inform CBAs. Once again, adopting the accessibility approach corresponds to a higher level of complexity than using standard mobility indicators. As already mentioned, the calculation of accessibility indicators requires the use of mobility indicators plus a number of extra calculations that have to be added up consistently. In any case, while transport-related CBAs continue to use mobility indicators and travel time savings as their inputs, it is only natural that CBAs continue to be considered by some authors as problematic for accessibility planning (Ferreira et al., 2012, Naess, 2006, Metz, 2008).

The use of travel time savings in transport CBAs is considered problematic because it is based on two potentially problematic assumptions. The first is that time has monetary value (a common assumption in contemporary mainstream economics). Converting time into money is not necessarily positive though as it can contribute to the increasing acceleration of social practices for the sake of economic growth. The resulting *social acceleration* has a large range of negative impacts – an overall issue discussed at length by Rosa (2018, 2015, 2003). The second assumption, which derives from the first, is that travel time savings can be equated to monetary gains. This assumption is also not necessarily constructive because individuals sometimes perceive travelling time as a utility and as a desired feature of mobility (Jain and Lyons, 2008, Lyons et al., 2007). Despite these important shortcomings, equating travel time savings to a monetary benefit somehow continues to be widely accepted in most transport planning circles. As expressed by one expert from the USA:

'The economic language used by transport planners has a universal appeal. Accessibility planning does not speak in terms of economic values or prosperity, while everyone wants to be prosperous.' [...] '[First], accessibility is not always a form of quantifiable consumption while mobility typically is. Second, willingness to pay is not a suitable concept for accessibility planning where accessibility is typically seen more as a human right than as an economic service'.

There is consequently a difficult alignment between the accessibility approach and transport economics that has so willingly adopted travel time savings as a key assessment indicator. This misalignment was emphasised in several interviews. The accessibility logic poses with this a number of questions to transport economists that remain without consensual answers.

5. Establishing pathways to mainstream accessibility planning

This section reports the answers to the second issue discussed in the interviews, which was focused on identifying pathways to promote a shift from mobility- to accessibility-centred planning. In line with this, the section aims to inspire stakeholders wanting to promote the accessibility approach.

5.1 To make accessibility part of the common sense language

One of the interviewees noted that accessibility tools for daily and corporate use are already available and being widely adopted. Many real estate companies, food delivery services, transit systems companies, and public facilities management organisations have launched their accessibility-based tools. These tools include mobility metrics (e.g. food delivery distance and times), but include as well more comprehensive metrics such as the extent to which previous clients were satisfied with the overall experience provided by the company (e.g. quality of the food, overall satisfaction with the delivery). As a result, people are getting used to base a growing number of daily decisions on metrics that depict their effective ability to have access to what they need. For some of the interviewees, these applications are paving the way to make the accessibility logic more mainstream. Some interviewees added that – precisely due to linguistic issues – it is crucial to develop a well-articulated understanding about what the word accessibility is supposed to mean and to somehow make it clearer for the broad public what is the difference between mobility-based and accessibility-based policy choices (a point also explored by Gutman and Tomer, 2016).

5.2 To increase the economic appeal of the accessibility approach

One of the strong points of the mobility approach is that it is associated with a clear economic logic, as stated in the previous section. This logic is alluring to many stakeholders. Considering this point, some of the interviewees argued that the same needs to happen to accessibility if this approach wants to succeed. They recommended increasing the 'accessibility planning appeal', by making evident the financial gains resulting from it and who benefits from them. One of the interviewees from the UK working for a private consultancy stated that:

'If the accessibility approach wants to succeed in economic-oriented policy making circles, it must be able to propose a reasonable way to convert accessibility gains and losses into financial gains and losses. We (practitioners) need an equivalent of the 'saving time' thing. We need an appealing way of selling our accessibility projects, dealing with influential people and politicians.'

There is work done that is paving the way towards this goal, as already mentioned (Geurs et al., 2006, Geurs et al., 2010), but more of this would be needed so that the accessibility approach can rival the mobility approach when it comes to econometric project assessment. This raises some disagreements though, as we will see on sub-section 5.5.

5.3 To develop and disseminate open access software and data for accessibility planning

Several interviewees affirmed that – in order to reduce the high costs of accessibility planning – it is necessary to fund at an international level the development and dissemination of open access software and data. They added that this will obviously have costs, however these might not be as high as it seems in the first place. The confluence of open data, data standardisation, and mobile computing, sensing and communication technologies has driven numerous technical innovations for measuring, modelling and representing accessibility at low prices. User communities of open access software could provide technical support, guidance, and updates, and help accessibility pioneers to develop or apply accessibility tools. The relative ease of access to new software and datasets means they have the potential to be a standard tool used by both professional planners and community groups.

According to these interviewees, such initiative could potentially have significant implications in terms of communication between people and planners. Online collaboration tools, open source mapping projects, GIS and other data visualisation devices are leading to the fusion of the data collection, analysis, and representation steps of project planning. This represents a considerable reduction in costs. Nevertheless, one of the interviewees pointed out that open-source tools can meet some resistance in governmental settings, due to a combination of established procurement procedures, perceived security concerns, and low reliability (a point explored by Stewart and Zegras, 2016, Stewart, 2014, but see also the alert against "cybernetic urbanism" by Krivý, 2016). To effectively address these concerns might represent a major step forward, she argued. In any case, these interviewees argued that investing funds in the development of open access accessibility tools could be very promising. One of them highlighted that such initiative would fit particularly well the philosophical perspective of accessibility planning (as linguistically expressed by the term "open access accessibility tool").

5.4 To identify and mobilise implementation niches

Experts based in the Netherlands argued that, when considering the implementation of accessibility policies, it is important to identify the right organisational, geographical, and community niches. Some of these niches will have stronger motivation and will be much more open to the accessibility approach than others. In principle, those already willing to be engaged should be approached first. However, two nuances are relevant to mention. First, some agents might not be able to invest considerable sums of money (or none at all). Nevertheless, they should not be dismissed because of this as they might have strong capacity to mobilise overall public support and media attention. Second, in public organisations some sub-divisions and sub-agencies might manifest the tendency for divergent thinking. These sub-units might be very interested in accessibility even though the umbrella organisation to which they belong is not. In such situations, there is the possibility that they can operate as niches for the development of future accessibility-oriented policies. Even though the importance of niches should not be underestimated (Geels, 2010, Geels and Schot, 2007), accepting their strategic value without critical analysis can in some cases be counterproductive. It is not desirable that accessibility becomes a marginalised concept negatively associated with rogue sub-agencies. So, these dynamics need to be carefully considered and judgments have to be made to assess the extent to which a given niche is indeed fertile ground to facilitate a transition towards accessibility planning.

5.5 To develop a holistic understand of accessibility

Some interviewees mentioned that it is crucial to develop a common framework to account for the diverse institutional dynamics needed to put into action the accessibility agenda. This requires a

holistic understanding of what accessibility is and what promotes or reduces it. Mirroring Cresswell's proposal that mobility should be seen holistically (Cresswell, 2008, Cresswell and Uteng, 2008), that is, taking into account its plurality of intertwined dimensions, these interviewees felt that accessibility needs to be seen in that way as well. Land use and transport interaction, the temporal dimension, awareness of opportunities, mobility skills, cultural constraints and perceptions, severance effects caused by transport infrastructures, health and mobility impairments caused by disability, are just some examples of aspects that should be taken into consideration when thinking in operational terms which projects are likely to promote accessibility and which ones are likely to reduce it, how, where, and for whom.

Second, and more specifically, some interviewees pointed out that economic considerations are starting to become rather central in narratives about accessibility planning. Only through this, they argued, accessibility planning can become holistic. However – and this is a point of contention to be highlighted – other interviewees expressed resentment against the econometricism that has become so deeply rooted in transport planning. Nevertheless, they agreed that the accessibility approach needs to entail budgetary considerations. It would be problematic if accessibility planning would become unable to determine with at least some precision the financial cost of the alternatives under consideration. In any case, it is clear that there is a tension between more econometric-oriented stakeholders and those who consider that an excessive focus on econometricism is already present and is problematic. The authors of this piece consider that to solve this tension is an important step towards making accessibility planning more mainstream. Further research and debate on this topic is clearly needed.

5.6 To adopt an evolutionary understanding of the mobility-accessibility debate

Some interviewees argued that those engaged with the accessibility approach have sometimes the tendency to present it as an alternative to the mobility approach following a binary logic of either one or the other. This is counterproductive and not necessarily correct, they emphasised. In their view, it is better to consider that the accessibility approach is one that transcends some of the limitations and includes most of the strengths of the mobility approach – basically as an evolution of transport planning from simpler and less comprehensive approaches to more complex and comprehensive ones. This means that the former should not be seen as an alternative to the later, but as a development or as an evolution of transport planning towards greater sophistication. As the previous sub-sections have shown, the accessibility approach adds more aspects and dimensions than those exclusively concerned with mobility; it does not, and it cannot, exclude mobility as a concept or as a socio-economic value.

In line with this evolutionary viewpoint, some experts noted that accessibility initiatives do not intrinsically require the support given or the information provided by a purpose-built accessibility tool. Planners can combine the outputs of mobility tools with other forms of analysis to successfully run an accessibility planning process. An interviewee consistently reminded us that several accessibility digital tools are in fact mobility tools that were expanded so that they could perform extra functions.

We believe that this insight is important, as it paves the way for a cooperative and synergistic perspective on the duality mobility versus accessibility. Instead of seeing them as contestants in a battle for organisational dominance, it conceptualises them as intertwined and synergistic approaches that build upon each other.

6. Concluding remarks

This article provided an analysis of the institutional barriers to the implementation of accessibility planning and presented some pathways to potentially overcome them. The adopted method to gather qualitative data included two series of in-depth interviews with experts in the field. The main innovation of the study was its international and cross-disciplinary perspective, as well as its focus on barriers of a specifically institutional nature. One of its strong points is the diverse nature of the interviewees selected, which included – among other disciplines – some financial experts. These are not usually included in accessibility planning studies. Yet another is related to its exploratory features, aimed at triggering curiosity and debate. It delivers a conclusion that offers hope for those wanting to see the long tension between mobility- and accessibility-oriented experts dissolved: the accessibility approach is here seen as a natural expansion of, and not an alternative against, the mobility approach. In terms of limitations, the method used provided broad conclusions without focusing on specifying barriers and actions to implement accessibility planning at the local level. It also offers no guarantees of success to those willing to put into practice the suggestions made; instead, it simply offers possible pathways for future developments in transport planning theory and practice. Further research is therefore needed to clarify the efficacy and conditions of applicability of the suggestions made.

Some of the main results of this study confirm and build upon findings of previous research. For example, Halden (2011) noted before us that one of the main barriers against the accessibility approach becoming more established is of a linguistic nature, and derive from the ambiguous meaning of the word *accessibility* itself. Also, the additional costs for planning organisations of implementing the accessibility approach, and the fragmented institutional frameworks that are frequently found in these organisations, were equally presented as major barriers to accessibility planning by previous teams of authors (Papa et al. 2016; El Genenidy and Boisjoly, 2017; Rode and de Cruz, 2019). What emerged from this research that was not sufficiently discussed in previous publications concerns the major influence of mainstream economic science in transport planning and the obstacle that such condition represents for accessibility planning. The present research also highlights pro-mobility powers and respective traditions as major barriers to this approach.

The study provides insights on how to facilitate a transition from the mobility to the accessibility approach. These include: establishing accessibility as part of daily-life language; increasing the economic appeal of accessibility planning; developing open-access software and data to reduce the costs of accessibility planning processes; identifying and motivating suitable implementation niches for accessibility planning initiatives; developing a holistic understanding of accessibility that promotes harmonious collective action among stakeholders; and to adopt an evolutionary perspective that ceases to depict accessibility planning as a rival of mobility planning. Instead, these two approaches can constructively be seen as synergistic ones – we will return to this point before concluding. Besides that, one of the main insights of this research concerns the costs and benefits of accessibility planning. To make accessibility planning more mainstream, those promoting it would benefit from making more evident the cost-ratios of accessibility-oriented initiatives and who in fact benefits and loses from them in economic terms. Otherwise, they will need to convince policy-makers that assessing transport-related initiatives based on economic principles is a practice needing a radical alternative. In any case, it is relevant to highlight as well that – while, at least in theory, transport and land use professionals clearly recognize the need for engaging each other in collaborative work for achieving accessibility enhancements – both the fiscal and finance professionals generally ignore the implications of their instruments regarding accessibility planning. This gap between professional fields must be resolved (see also Tomer and Gutman, 2017).

As a concluding remark we would like to add that all the suggestions and points made above should be seen under a quite specific light: this research proposes understanding accessibility planning as an

approach based on mobility planning while adding to it extra dimensions. We would like to highlight that there is no benefit in conceptualizing these two approaches as competing rivals or as antagonists. They are better understood as a sign that transport planning is a disciplinary and professional area in constant development and where lively dialogues are taking place for the benefit of all involved. As a result, the time is ripe to establish more cooperative interactions among accessibility, mobility and finance experts as these three professional groups might have more in common than sometimes depicted. We therefore propose to those who want to promote the accessibility approach to stop presenting it as a disruption from the allegedly outdated, monolithic and econometric mobility approach – as sometimes done. Instead, we suggest that the advocacy of the accessibility approach is made by means of simply performing gradual improvements to the existing mobility approach. Through this, transport planning will be more capable of considering the non-linear relationships between physical travel and the effective ability to reach social contacts, places, goods, and opportunities. That is already a move towards the so-called accessibility approach – and one not likely to encounter barriers as significant as those encountered in the past.

Acknowledgements

This work was partially supported by the Brookings Institution, within the Moving to Access Initiative

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Re-enacting the mobility versus accessibility debate: Moving towards collaborative synergies among experts

Highlights

- Transport planning comprises the accessibility approach and the mobility approach
- The mobility approach continues dominant but is frequently criticised
- Institutional barriers blocking the accessibility approach are critically identified

- Strategies to overcome these barriers are proposed
- Collaboration between accessibility and mobility experts is strongly recommended

Re-enacting the mobility versus accessibility debate: Moving towards collaborative synergies among experts

Keywords: accessibility; institutions; barriers

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Funding: This work is part of the *Project Moving to Access* and was supported by the Brookings Institution, 1775 Massachusetts Ave., NW, Washington, DC 20036, USA.