# **Pirating the Skies? A Review of Airline Booking Ploys**

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#### Declaration of interest: None

**Funding**: This work was supported by the Fonds Wetenschappelijk Onderzoek – Vlaanderen under Grant 1115519N.

# **Pirating the Skies? A Review of Airline Booking Ploys**

In this paper, we review the literature on airline booking ploys/loopholes associated with practices of hidden-city, throwaway, and back-to-back ticketing. A diverse literature on this topic has developed, albeit that the emergence of this literature has to some degree been masked by the often-monodisciplinary approach of individual contributions. In this review, we discuss the main tenets of this increasingly wide-ranging literature and try to identify some of the most notable research gaps. Four research clusters are identified: (1) network revenue management, (2) aviation and consumer law, (3) tourism and business ethics, and (4) consumer marketing and travel journalism/media. Overall, we find that there have been limited interactions across individual contributions and the different clusters. In light of this, we argue that more coherence within the literature could benefit our understanding of airline booking ploys. The literature is furthermore imbued with a normative tone: some authors strongly oppose the exploitation of partial and out-of-sequence ticket use from a legal or ethical point of view, while others take a more nuanced position or even a pro-consumer stance. This is also reflected in the ways in which the fare loopholes are represented in non-academic accounts such as travel blogs, books, and news articles.

**Keywords**: creative ticketing, fare rule evasion, hidden-city ticketing, throwaway ticketing, back-to-back ticketing

### **1. Introduction**

Within commercial air transport, travellers may adopt a wide range of strategies to save on travel costs. Whereas some of these strategies, such as self-connecting and virtual interlining (see, for example, Cattaneo et al., 2019; Fichert and Klophaus, 2016; Meire and Derudder, 2021), are considered legal consumer practices, some of the other strategies are contested. Given that the digital algorithms of global air travel are hackable (see also Zook & Graham, 2018), a small group of innovators actively explores the fringes of (il)legality in order to pursue more luxurious and/or lower-cost

air travel. To this end, multiple techniques are adopted, among which mileage running<sup>1</sup>, fuel dumping<sup>2</sup>, credit card churning<sup>3</sup>, the exploitation of erroneous airfares, and various approaches to circumventing airlines' fare rules. In this paper, we review the increasingly diverse literature on fare rule evasions — which are sometimes in more subdued terms called alternative ticketing (Dorinson, 2004) and creative ticketing (Levinson & Brandt-Sarif, 2004) strategies — associated with practices of hidden-city, throwaway, and back-to-back ticketing. Collectively, these fare rule evasions are referred to as partial and/or out-of-sequence ticket use.

There are two main reasons why we believe a systematic review of these booking ploys is in order. First, most contributions firmly focus on specific disciplinary questions, such as the legal dimensions of booking ploys. This implies that there has been little or no cross-referencing between different publications, which risks masking the increasing size and diversifying scope of this literature. Second, recent debates on legal frameworks that would allow/prohibit passengers' exploitation of these loopholes imply that these practices are gradually shifting from the margins to the centre of air transport markets. In this paper, we review this body of literature, and use this to identify research gaps.

The remainder of this paper is organised as follows. In the next section we describe the practices of hidden-city, throwaway, and back-to-back ticketing, after which we outline the method used to select the reviewed material in Section 3. In Section 4, we focus on

<sup>&</sup>lt;sup>1</sup> Undertaking a trip with the sole aim of increasing frequent flyer miles.

<sup>&</sup>lt;sup>2</sup> Adding one or more segments to an (international) itinerary, without the intend of using them, in order to strip/reduce the fuel surcharges.

<sup>&</sup>lt;sup>3</sup> Applying for credit cards solely to take advantage of sign-up bonuses in the form of reward travel miles/points.

network revenue management to discuss the causes and impact of the fare loopholes. In the next section, we synthetize the regulatory and legal frameworks that exist(ed) to allow or ban the practice of partial and out-of-sequence ticket use. We focus on US and EU legal frameworks, as these are considered the pioneers of air transport legislation (Haanappel, 2018). We then address the ethical debate on the use of airline booking ploys, as well as on airlines' price discriminatory mechanisms that are at the root of these ploys in Section 6. Because these ploys are inherently related to and (possibly) sustained by digital (social) networks and popular news(paper) articles, it is also relevant to extend the review material to the non-academic literature. Section 7 therefore focuses on the representation of the booking ploys in travel journalism/media. In the final section, we provide a number of concluding remarks and identify the major research gaps.

# 2. Airline booking ploys: definitions

*Hidden-city ticketing* — also referred to as point beyond ticketing (Beaver, 2012; Bischoff, Maertens, & Grimme, 2009; Cook & Billig, 2017; Rakowski, 2004), crossborder ticketing (Baganha, 1998; Bischoff et al., 2009; Martin, 1995; Medlik, 2003; van Bakelen, 1988) and Skiplagging (see, e.g., Dickinson, 2019) — may occur when a flight from A to B (or from B to C) is more expensive than a flight from A to C via B. This may entice travellers to buy the connecting flight itinerary but disembark (or start) their trip at the intermediate ('hidden') city and deliberately forgo the unneeded flight segments. Figure 1 schematically outlines two hidden-city ticket configurations. A distinction can thus be made between forgoing either the first (Configuration A) or the last (Configuration B) flight segment of the connecting itinerary. It must be noted, however, that some of the (configurations of the) booking ploys are difficult to

implement in practice. In Figure 1, for example, travellers may not succeed in pursuing Configuration B as airlines often cancel the remaining of the reservation in case a traveller did not show up for the first flight segment. Moreover, hidden-city ticketing generally comes with it a number of inconveniences and possible drawbacks. Travellers making use of this loophole can, for example, only take hand luggage as any checked baggage will not be off/up-loaded in the connecting city. Moreover, travellers exploiting hidden-city ticket opportunities bear some risks, which will be elaborated later in this paper.



Figure 1: Examples of hidden-city ticketing.

In a similar vein, travellers may ignore either the in- or outbound journey in case a return ticket is less expensive than its corresponding one-way itinerary (Figure 2). This booking ploy, which is referred to as *throwaway ticketing*, is considered a 'special case' of hidden-city ticketing, with the ticket's destination constituting the 'hidden' city at which the traveller (dis)embarks (Wang & Ye, 2016).



Figure 2: Examples of throwaway ticketing.

Travellers may also turn to *back-to-back ticketing* — also referred to as bracketing (Schwieterman, 2019), nested ticketing (Aslani, Modarres, & Sibdari, 2014) and cross-ticketing (Bischoff et al., 2009; Bischoff, Maertens, & Grimme, 2011) — in order to circumvent the Saturday night and/or minimum stay rules sometimes imposed by airlines. Such an opportunity arises when a mid-week return ticket is more expensive than the combination of two return tickets involving minimum stays over the weekend. By buying two return tickets and only using one flight leg per return ticket in the opposite direction, the mid-week return ticket can be simulated at a lower fare. There exist many variations on the use of back-to-back ticketing (GAO, 2001), with one of the most popular variations being the practice of using *all* flight coupons of both return tickets in a non-sequential order. Figure 3 schematically outlines the most widespread configurations.



Figure 3: Examples of back-to-back ticketing.

In the next section, we outline the method used to identify the reviewed material on these alternative ticketing strategies.

#### 3. Method

The method used to select the material reviewed in this paper consists of three complementary approaches. First, we conducted twelve searches using Google Scholar to obtain a structured overview of the fare rule evasion categories in all their diversity. The detailed configuration of the search strings can be found in Appendix A.1, and pertain to spelling variations — including both singular and plural forms — of the following key words: hidden-city ticketing, back-to-back ticketing, throwaway

ticketing, point-beyond ticketing, cross-border ticketing, nested-ticketing, Skiplagging, cross-ticketing, fare loopholes, booking ploys and — in combination with the key word airline(s) — travel hacks and no-show clauses (NSCs). This produced a total of 452 results, including duplicates within the results of a single search command as well as double-counted articles that were retrieved from multiple searches. After removing these duplicates and double-counted articles, we obtained 384 publications. However, 114 publications were not written in English — today's de facto scientific *lingua franca* — and/or could not be consulted due to full text access restrictions and were therefore removed.

We assessed the remaining 270 publications in terms of their relevance during an initial screening and found that 179 publications did not relate to fare loopholes: the search terms within these publications pertained to other concepts (e.g., *throwaway-tickets* within the context of lottery games, *cross-border tickets* within the context of cross-border cooperation in public transport systems, etc.) and/or appeared in a different configuration (e.g., *cross-tickets* within the configuration of 'Red Cross tickets'). This led to 91 publications that were scrutinised in more detail. Ultimately, 49 documents were deemed directly relevant within the scope of this review. The remaining 42 documents were not assessed in further detail on the grounds that the author(s) did not sufficiently elaborate on the concept, mainly because it was used as background information at best.

Second, we supplemented the above material by forward and backward snowballing in order to capture any additional, relevant publications that were not included in our database search. In addition, and related to this, numerous official EU and US reports, bills, regulations and communications were consulted through their respective official

websites.

Third and finally, newspaper articles, magazines, blogs, (news) website articles and books were retrieved via ProQuest, an online platform providing access to numerous literature databases and archives across a variety of disciplines. The search command (Appendix A.2) produced a total of 2692 results, all of which were assessed on the basis of their relevance in light of this topic during a first screening. 2004 publications — including (semi-)duplicates — were considered off-topic and/or not written in English, and hence excluded from further examination. In addition, 7 potentially relevant documents could not be assessed due to access restrictions. The remaining 681 publications, of which 153 (semi-)duplicates, were deemed relevant within the scope of this review. We will therefore draw a number of (general) conclusions from this body of literature and provide noteworthy citations where relevant.

To provide a structured and coherent synthesis of the diverse literature, we adopted a content-related clustering strategy (see Wee & Banister, 2016) in conjunction with a narrative approach. From this perspective, it can be observed that the literature on booking ploys is embedded within multiple research areas. Based on our search results, we identified four research clusters (Figure 1): (1) network revenue management, (2) aviation and consumer law, (3) tourism and business ethics, and (4) consumer marketing and travel journalism/media. These four clusters form the main cornerstones around which this review is structured, i.e. we dedicate a section to each after which we discuss interrelations and research gaps.



Figure 4: Overview of selection of material for review.

### 4. Causes and impact of airfare loopholes

Only a small portion of the reviewed material *extensively* elaborates on the context in which alternative ticketing strategies (and hidden-city ticketing in particular) originated. Nonetheless, there is an apparent consensus on the roots of hidden-city ticket opportunities: the deregulation of the airline industry and the emergence of hub-and-spoke networks. There is a rich body of literature on airlines' network revenue management and price discriminatory mechanisms (see, for example, Belobaba, 2009; Burghouwt, 2007) following deregulation, but here we limit ourselves to the information that is relevant for alternative ticketing strategies.

The deregulation of the US airline industry in 1978 and the European aviation market in the late 1980s–early 1990s heralded a number of significant changes in airline markets, including increased levels of competition between airlines and the development of codeshare agreements (see, for example, Garsek, 2001). Another important by-product of deregulation was the increased importance of hub-and-spoke forms of network

organisation. In airline markets characterised by hub-and-spoke networks, hubs are frequently dominated by a single major airline giving rise to so-called fortress hubs (Cook & Billig, 2017; Ravich, 2002; Schwieterman, 2019; see also, e.g., Pels, 2009; Zhang, 1996). Crucially, because competition on routes to/from the airline's hub airport is scarce, this enables the airline to charge a 'hub premium' to passengers who intend to use that hub as their start or end point (Ravich, 2002; see also Berry, Carnall, & Spiller, 1996; Hofer, Windle, & Dresner, 2008; Lijesen, Rietveld, & Nijkamp, 2001).

Carstensen (2008) argues that the existence of hidden-city ticket opportunities can be traced back to these monopoly hub airports, as they are associated with high fares *to/from* the hub and low fares *through* the hub. This is in line with the report of the U.S. Government Accountability Office (GAO) (2001), which identified a significant association between the existence of hidden-city ticket opportunities and the level of competition in the corresponding hub and spoke markets. With respect to the scope of hidden-city ticket opportunities, the GAO furthermore showed that such opportunities exist in 17% of all markets operated by the major U.S. airlines. This observation is however not fully consistent with recent findings by Liu (2020), who reported that hidden-city ticket opportunities now exist in only circa 8% of the major U.S. markets. However, given that both sources apply different thresholds to denote a hidden-city ticket opportunity, the results cannot be directly compared.

Wang and Ye (2016) also assessed the cause of hidden-city ticket opportunities, and show that — based on an adapted revenue management model — a significant difference in the price elasticity of demand on associated itineraries is an essential but not always a sufficient prerequisite to create a hidden-city ticket opportunity. This is in line with Aslani, Modarres, and Sibdari (2014) who, using a Displacement-Adjusted

Virtual Nesting (DAVN) method, argue that a hidden-city ticket opportunity may arise in case the bid price of a leg within an itinerary amounts to zero, which could be attributed to the difference between the legs' price elasticity of demand.

The emergence of back-to-back tickets is in turn related to the minimum stay rules imposed by some airlines, and the Saturday night stay rule in particular, to differentiate business from leisure passengers (GAO, 2001). Because ticket prices are mainly based on demand and travellers' willingness to pay, ticket restrictions on discount prices are needed to prevent business travellers from buying tickets targeted at leisure passengers (see, for example, Cook & Billig, 2017). A large variety of fencing mechanisms have been developed, including advance-purchase restrictions and Saturday-night stay limitations. As such, passengers' exploitation of back-to-back ticket opportunities may be considered as an attempt to actively practice price diversion, i.e. "the moving of a product from its intended market to an unintended market" (Cook & Billig, 2017, p. 225). In Cantamessa (2005), for example, a brief comparison is made between vertically differentiated firms having introduced a market cannibalisation effect and the practice of back-to-back ticketing. According to Cantamessa (2005), business travellers may exploit back-to-back tickets in order to gain a net benefit: the lower economy fares outweigh the lower utility of the economy class tickets, hence introducing a cannibalisation effect.

As to the *impact* of hidden-city and back-to-back ticketing, multiple authors state that passengers' exploitation of these loopholes negatively impacts airlines' revenues (e.g., Dorinson, 2004), though none of them provide detailed estimations of the overall revenue loss in the short/long run. With regard to hidden-city ticketing, Wang and Ye (2016) simulate that airlines' revenue loss due to passengers' exploitation of hidden-city

ticketing could be at most a half of the original optimal revenue. In this regard, they show that all hidden-city ticket opportunities should be eliminated in order to mitigate the revenue loss caused by passengers' exploitation of the loophole. Notably, however, these revenue gains cannot amount to the optimal revenue that would have existed if hidden-city ticket opportunities had remained unexploited. Based on Skiplagged data, an online travel agency which capitalises on hidden-city ticket opportunities and actively offers these tickets to travellers, Liu (2020) also finds that hidden-city ticketing is not detrimental to either party in the short run, but may potentially (negatively) affect both airlines and consumers in the long run.

By focusing on the impact of *permitting* hidden-city ticketing, the GAO (2001, p. 37-38) argues that "hidden-city opportunities would cause [the airlines] to lose revenue in two ways. First, it would allow passengers to obtain seats costing less than what the airline intended for a given product. [...]. Second, the airline may not have sold tickets for flights from the hub to the connecting city because the airline would not be aware of travellers' intentions to deplane at the hidden city". Since hidden-city ticket opportunities only exist in hub-and-spoke markets, increasing levels of exploitation may incentivise airlines to offer less (or discontinue the) indirect services in some markets, and instead switch to a more fully-connected network (Liu, 2020; see also GAO, 2001). In contrast, airlines' cancellation of the remaining reservation of a no-show passenger (e.g. in case a passenger tries to implement Configuration B of Figure 1) also *allows* them to re-sell the forfeited ticket (see also Defossez, 2017; Santos, 2017). Hence, the question arises what the net impact is on airlines' revenue. To date, however, literature on this specific sub-topic is scarce.

According to Cantamessa (2005), airlines may discourage business travellers from

engaging in back-to-back ticketing by (1) lowering business class fares, (2) increasing the service quality of a business class ticket, or, alternatively, (3) lowering the quality of an economy class ticket. Because of deregulation processes, airlines furthermore enjoy (more) power to control the use of flight tickets (Carstensen, 2008). By airlines' prohibition of partial ticket use, the airlines aim to secure both their monopoly hub prices and established price discrimination strategies (Carstensen, 2008). The prohibition of hidden-city ticketing, for example, led to airlines' monopolisation of 234 air transportation markets in violation of the US Sherman Act (Scribner, 2008). Hence, proposals were introduced to limit airlines' market share at certain hub airports (Whitaker, 2002).

The possible impact of *legalising* consumers' exploitation of these fare loopholes will be addressed in the remainder of this paper.

#### 5. Legal and regulatory frameworks: Who's/whose right(s)?

Airline booking ploys are closely related with the legal and regulatory frameworks that prevent passengers from circumventing fare rules. To date, the International Air Transport Association (IATA) annually publishes a Passenger Standards Conference Manual containing numerous resolutions and recommended practices (RPs) member airlines respectively must or may comply with. With respect to booking ploys, IATA's former RP 1724 contained a 'full and sequential use of flight coupons' rule, which tried preventing passengers from circumventing fare rules (Bischoff et al., 2009, 2011). More specifically, Articles 3.3.1 and 3.3.2 enabled airlines to cancel a reservation based on the grounds that a passenger deliberately missed the first leg of the itinerary or, alternatively, did not board the outbound journey (Defossez, 2016, 2017). By and large, travellers exploiting the ploys also bear the risk of losing their frequent flyer

membership. In 2013, IATA revoked RP 1724 (Haanappel, 2018). Today, IATA's Resolution 723 pertains to coupon sequence and use.

Although IATA's recommendations are subordinate to (inter)national law and merely constitute a suggested framework, they have been widely approved by governmental authorities (Bischoff et al., 2009, 2011). It is however increasingly argued that the IATA standards breach (inter)national aviation and consumer law, and many have strived for the removal of the rule. There is now a rich body of case-law on the partial and/or non-sequential use of flight tickets.

In 1988, for example, Malibu Travel Inc. and Yiadom wanted the Amsterdam District Court to impose the acceptance of hidden-city tickets on KLM, but the Court dismissed their claim (van Bakelen, 1988). In Germany, multiple lower courts already decided to revoke IATA's rule on flight coupons use, but the courts of appeal subsequently provided mixed judgement (Bischoff et al., 2011; Vogler, 2010). In 2010, the German Federal Court of Justice ruled that passengers cannot be prohibited from partially using a flight ticket, insofar they truly intended to use the entire ticket (see Vogler, 2010, for a discussion on this matter). Other courts within the European Union will likely base their decision in similar cases on the German Court's judgment (Vogler, 2010). As illustrated by the German case, the existence of various, diverging (inter)national laws further complicates the application of IATA's recognised recommendations (Bischoff et al., 2009). Consequently, a multi-level patchwork of different consumer protection laws exists.

In 2018, IATA published a short position paper on this matter, in which the core reasons for (maintaining) the rule were outlined. The paper is centred on the assertion that the rule effectuates increased competition and connectivity levels, while reducing wasted

capacity and overbooking. Most importantly, IATA argues that the rule is — contrary to popular belief — to the benefit of air passengers. In its review report on airline contract terms, the Civil Aviation Authority (CAA) (2019) sympathises with airlines' policy on coupon sequence and use, but stresses the need to distinguish between passengers who *deliberately* circumvent airlines' fare rules and those who forgo flight segments due to legitimate reasons. The CAA furthermore advocates to increase consumers' awareness of the existing ticketing rules. Nonetheless, travellers may not be fully aware of the specifics of the terms and conditions they signed to agree with (see, for example, Ayres & Klass, 2005, for a disquisition on promissory-fraud liability; and Lau, 2016).

Catering to the need of a global approach to enhance air passenger rights, the International Civil Aviation Organization (ICAO) developed a number of core principles on consumer protection in 2015 (see, e.g., ICAO, 2017), which were approved by IATA (Truxal, 2017). Notably, however, debate remains on the extent to which ICAO's core principles may co-exist with the prevailing legal frameworks (Truxal, 2017). In addition, according to Haanappel (2018), the general character of ICAO's core principles is detrimental to its legal vigour. Whereas Bischoff et al. (2009, 2011) advocate the need for a *European-wide* regulation, Harrington (2013, p. 647), on the contrary, raises the question whether "a separate legislative regime for airline passenger rights outside of national and regional consumer law regimes is necessary".

#### 5.1 U.S. Law

The concept of 'air passenger rights' is relatively new (Haanappel, 2018). In the late 1980s, consumer dissatisfaction with airline service quality began to grow (Bowran, 2004; Kirk, 2001) and reached widespread public attention after the Detroit incident of

1999<sup>4</sup> (Garsek, 2001; Kirk, 2001; Ravich, 2001, 2002). Against this backdrop, the first passengers' rights proposals were put forward in 1987 (Ravich, 2002) even though none of them passed the legislative process (Schoonover, 2011). Effectuated in part by the growing use of the Internet through which passengers could (more) easily file complaints with the Department of Transportation (DOT), the pressure to improve airline customer service increased (Silversmith, 1999). In 1998, for example, the American Society of Travel Agents (ASTA) advocated the use of "all, part or none of the segment of any ticket purchased" (Ravich, 2002).

In 1999, following the Detroit incident, the House of Representatives introduced the Airline Passenger Bill of Rights Act (H.R. 700), which included a proposal to allow the partial use of flight tickets (Bowran, 2004; Garsek, 2001). Whereas some of the bill's provisions received little public attention, the provision pertaining to hidden-city ticketing was (more) widely reported upon by the media (Silversmith, 1999). A similar bill, the Airline Passenger Fairness Act, was introduced in the Senate in 1999 (S. 383), and designated airlines' prohibition of partial ticket use as an unfair or deceptive practice (Garsek, 2001). Other bills followed, and were collectively referred to as the 'airline passenger bill of rights' (PBOR) bills (CRS, 2001; Kirk, 2001; Ravich, 2001, 2002).

While the proposed legislation met great resistance from the Air Transport Association (ATA), the ASTA supported the various proposals. Opponents, however, pointed to the adverse effects of permitting partial ticket use, which in essence entailed a reduction of

<sup>&</sup>lt;sup>4</sup> The Detroit incident of 1999 refers to the stranding of thousands of passengers on the tarmac of Detroit Metropolitan Airport due to a snowstorm. As passengers were held on the tarmac for hours on end, the conditions within the airplanes deteriorated: food and drinks ran out, sanitary facilities became unavailable, and passengers received little information.

airline competition and a hidden reinstitution of government regulation (Bowran, 2004; Garsek, 2001). More specifically, it was argued that *legalising* the partial use of flight tickets would cause price increases in the connecting markets, which concurs with the GAO (2001) report findings. This, in turn, could result in the elimination of services to spoke communities due to decreasing levels of demand (GAO, 2001). Similarly, legalising back-to-back ticketing could incite airlines to reduce the visibility of discounted airfares, possibly resulting in higher fares for leisure passengers (GAO, 2001).

Attempting to forestall possible legislation (Kirk, 2001), the ATA proposed the Airline Customer Service Commitment Plan (or Customer's First Plan) in 1999: a voluntary airline programme designed to improve customer service. Notably, however, the voluntary plan requested airlines to disclose their cancellation policies related to partial ticket use (Garsek, 2001), which revealed the reluctant stance of the ATA in the debate. A year later, the DOT's Office of Inspector General published its final report (2001) on the implementation of the voluntary plan and highlighted the major shortfalls that still persisted, which mainly pertained to flight delays and cancellations (Bowran, 2004; Kirk, 2001). Consequently, previous bills were revived and/or restated and two new bills were introduced (S. 319 and S. 483) (Bowran, 2004; Kirk, 2001; Ravich, 2002). Overall, four bills (i.e., H.R. 1734, HR. 332, H.R. 1074, and H.R. 907) included a statement requiring the airlines to permit the partial use of flight coupons *without* 

The legislative process, however, was superseded by the 9/11 terrorist attacks, which induced a redefinition of passengers' rights (Bowran, 2004; Ravich, 2002; Schoonover, 2011). As Ravich (2002, p. 994) stated: "The subtext associated with the phrase

'passengers' rights' has shifted from one portraying the air traveller as a proverbial victim of corporate largess needing legally enforceable rights against an uncaring system, to a utilitarian one recommending that travellers' individual freedoms be restricted for the benefit and safety of the general travelling public" (see also Bowran, 2004, p. 49). As such, while the passengers' rights framework previously focused on service quality, a new focus on security emerged (Ravich, 2002).

In 2007, the Senate and the House of Representatives again introduced the Airline Passenger Bill of Rights Act of 2007, which once more failed in the legislative process (Schoonover, 2011). Two years later, a new DOT regulation and APBR proposal were developed. The Third rule is now in force (Truxal, 2017).

The complexity inherent to the legal debate on the partial use of flight tickets is reflected by numerous U.S. law cases. In 2014, for example, United and Orbitz sued the founder of Skiplagged (see, for example, Benge & Simpson, 2015; Cook & Billig, 2017; Rice, 2015; Schwieterman, 2019), which "represents an attempt by United to exercise greater control over the use of its fare and scheduling data" (Benge & Simpson, 2015, p. 32). However, there were lawsuits in the opposite direction as well. In 1996, for example, three U.S. carriers were sued by a group of travellers for prohibiting the use of hidden-city tickets and actively enforcing it by (1) checking all baggage through to the final destination, (2) cancelling the remaining of the reservation in case a passenger did not show up, and (3) sanctioning travel agents who engaged in the practice (Fones, 2015, see also *In re Northwest Airlines Corp.*, 208 F.R.D. 174, E.D. Mich. 2002, and *Chase v. Northwest Airlines Corp.*, 49 F. Supp. 2d 553, E.D. Mich. 1999).

#### 5.2 EU Law

Similar to the airline passengers' rights movement in the U.S., the European Commission (EC) also sought to enhance consumer protection in the European aviation market. This was initiated by a consultation paper entitled 'Air Passenger Rights in the European Union: A consultation document on Consumer Protection in Air Transport', which addressed — amongst other things — the sequential use of flight coupons (Goh, 2003). Shortly thereafter, a Communication to the European Parliament and the Council on the Protection of Air Passengers in the European Union was published (see Commission of the European Communities, 2000). With respect to (prohibiting) the non-sequential and partial use of flight coupons, the Commission (p. 13) argued that it "can be interpreted as a legitimate way of distinguishing products by market or as an unfair restriction on consumer choice".

Bordering on the ATA's Airline Customer Service Commitment Plan in the U.S., a voluntary Airline Passenger Service Commitment (APSC) was developed (Goh, 2003). One of the key issues addressed in the consultation and legislative process, though not assessed in the APSC, included the prohibition of partial and out-of-sequence ticket use (Goh, 2003). In 2005, the EU's Passenger Rights Regulation 261/2004 (also known as the 'Denied Boarding Regulation', see Harding, 2006; hereafter 'the Regulation') came into force, which has raised controversy and academic discussion ever since (Haanappel, 2018; Harrington, 2013; Prassl, 2014). IATA and the European Low Fares Airlines Association, for example, officially challenged its validity, though the Court decided against them (Harding, 2006; Harrington, 2013). Over time, many questions have been raised as to the interpretation of key concepts contained in the Regulation, as well as to policy areas that are not covered by it. The Regulation does, for example, *not* explicitly mention the non-sequential use of flight coupons (Steer Davies Gleave, 2012),

thereby leaving it to the rules imposed by IATA. By 2017, the Court of Justice of the European Union (CJEU) had adopted up to 15 rulings pertaining to the interpretation of the Regulation, which in turn influenced its application by the national enforcement bodies and the national courts (Truxal, 2017). The ways in which the CJEU interpreted the Regulation's provisions throughout its judgments has been met with plenty of criticism (Prassl, 2014). By and large, the CJEU has taken a consumer-friendly position in interpreting the Regulation (Harrington, 2013; see also Haanappel, 2018).

The shortcomings of the Regulation were reflected upon in a 2011 Communication to the European Parliament and the Council (see European Commission, 2011). An exploratory study on the application and possible revision of the Regulation by Steer Davies Gleave (2012), ordered by the EC, sheds light on the possible impact of both prohibiting and modifying the rule. Three scenarios are considered: (1) a full prohibition of the rule, which the author does not recommend due to the uncertainty regarding its net impact, (2) a partial exception to the rule in case a coupon is missed due to *force majeure*, and (3) an approval to fly (all segments of) either the outward or return flight while forgoing the segments in the opposite direction.

In 2013, the EC issued a proposal (see European Commission, 2013) for amending the Regulation. With regard to the partial use of flight coupons, the proposal extends Regulation 261/2004 by prohibiting airlines to deny or surcharge a passenger because he/she did not board the outbound flight(s) of a return ticket (Art 3(b), see also European Commission, 2013a), which thus partly corresponds to the third scenario put forward by Steer Davies Gleave (2012). However, the proposed amendment does not restrict the airlines to impose rules on the *sequential* use of flight coupons (Brunagel et al., 2019). According to Harrington (2013, p. 639), this partial EU ban on NSCs

represents "a significant departure from current industry practice". A number of general key issues however remain (see, e.g., Prassl, 2014). A study by Arnold (2013), for example, identifies a number of key problems emanating from or inherent to the Commission's Proposal pertaining to the partial use of flight tickets.

To date, however, the proposed amendment of the Regulation is not yet in force. Moreover, whereas the European Parliament supported the Commission's proposal to (partially) ban NSCs (see European Parliament, 2014), the provision involved has been removed by the Council (Boulet et al., 2015; Steer, 2020). Following this development, Boulet et al. (2015) reviewed the different arguments put forward by the airline industry and the European Consumer Organisation (BEUC) (not) to ban NSCs. In sum, they concur with BEUC and advocate the need for an explicit prohibition of NSCs. To this end, Boulet et al. (2015) argue that NSCs violate Council Directive 93/13/EEC on unfair terms in consumer contracts (UCTD) (1993) by creating a 'significant imbalance' to the detriment of the consumer. They furthermore contradict the GAO (2001) by arguing that a prohibition of NSCs will lead to *increased* (leg-based) competition without a reduction or elimination of services in certain markets. The line of argumentation is broadly consistent with the work of Defossez (2016; see also Defossez, 2017), though she argues that a NSC may (only) be justified in case a passenger did not board the *first* leg of a multi-leg journey. Whereas Bischoff et al. (2011) follow the GAO report regarding hidden-city ticketing, the authors counter-argue the presumed negative consequences of legalising throwaway- and back-to-back ticketing. Haanappel (1996), on the other hand, points to the negative ramifications of allowing out-of-sequence ticket use, being an increase of the 'ex-behind-the-gateway prices' and the removal of return fares.

In 2016, a Commission Notice containing 'Interpretative Guidelines on Regulation (EC) No 261/2004' (see European Commission, 2016) was published. These clarify that refusing passengers because they did not board the previous flight(s) within the reservation or, alternatively, did not take the entire outbound flight segment, does *not* correspond to the definition of a denied boarding within the Regulation. In settling the matter, the Commission refers to the terms and conditions of the airline(s) and national law provisions. Courts in Germany, Spain and Australia, for example, have ruled that NSCs "are unfair contract terms which breach national legislation based on EU Directives" (Steer, 2020, p. 224).

In February 2020, the Croatian Council Presidency proposed new revisions of the Regulation, which, according to Defossez (2021), favour the airlines and are detrimental to air travellers. Still, although the revision of the Regulation is long overdue (Haanappel, 2018), it is "the law of the land and will not disappear soon" (Truxal, 2017, p. 112).

#### 5.3 Airlines' Conditions and Contracts of Carriage

Notwithstanding the ongoing legal debate, most airlines prohibit the partial and nonsequential use of flight tickets in their contract of carriage through the inclusion of a NSC. As Baganha (1998) points out, this *bilateral* contract encloses 'mutual rights and obligations' on/of both parties. Most often, the ticket is no longer deemed valid in case the contract term on partial/out-of-sequence ticket use is not met. However, some airlines may *not* cancel the remaining of the reservation provided that the passenger pays a recalculated fare based on the altered flight routing or (in some cases) an extra fixed fee. Exceptions may be provided (1) in case of *Force Majeure*, illness or any other unforeseen reason, or (2) depending on the place of residence or sales location.

Nonetheless, actively prosecuting passengers who infringe the contract term generally remains uncommon. This incongruity may be explained by: (1) the significant costs associated with pursuing individual passengers, (2) the currently low volume of travellers actively exploiting the loopholes (Wang & Ye, 2016; Dorinson, 2004; Zook & Graham, 2018), and (3) the difficulties associated with detecting back-to-back ticketing (Garrow, Kressner, & Mumbower, 2011; see also Martin, 1995). Consequently, increasing volumes of airline hackers may incentivise airlines to attempt closing the loopholes. In 2019, for example, Lufthansa tried to sue a passenger for skipping the last leg of his flight itinerary (see, e.g., Dickinson, 2019).

# 6. The ethics issue: A matter of perspective?

Irrespective of the legal and regulatory frameworks, there is much ongoing debate on the *ethics* of using airfare loopholes, as well as on the airlines' prohibition of these practices and the fencing mechanisms that are in place to prevent travellers from circumventing fare rules. Importantly, therefore, much of the literature is imbued with a normative undertone.

*Customer-supplier relationship: a pro-customer perspective* — Whereas some authors strongly oppose airlines' prohibition of partial ticket use from an ethical point of view (see, e.g., Rakowski, 2004), others take a more nuanced position (see, e.g., Bischoff et al., 2011) or concur with the arguments put forward by industry stakeholders. Rakowski (2004, p. 239), for example, compares the practice of partial ticket use with 'negative shoplifting': "The court is used to dealing with people accused of taking possession of something without paying for it, not with people accused of paying for something without taking possession of it." Rakowski (2004) clearly takes a pro-consumer stance, and argues that consumers should *not* be morally obliged to submit to airlines'

imprecise market segmentation devices. The author's line of argumentation starts from the point of view that travellers should not be obliged to segregate *themselves* when the airline itself is not able to efficiently segregate its market. This type of pro-consumer stance is also apparent in the doctoral dissertation of Santos (2017). With respect to NSCs, the author argues that airlines may not claim any damage restitution, as the passenger already fully paid the price of the flight ticket. Moreover, "the no-show policy allows airlines to sell the same ticket twice and thus obtain an unjust enrichment because the company does not refund the price of the unused ticket to the passenger; on the contrary, the passenger is asked to pay for another ticket" (Santos, 2017, p. 59). In his essay on unconscionability and price discrimination, Klock (2002, p. 361) in turn strongly disagrees with George Washington University's travel policy, which deemed travellers' exploitation of back-to-back tickets an unfair practice: "This absurdly perverse definition of an unfair practice is perplexing".

*Customer-supplier relationship: a pro-airline perspective* — Ravich (2002, p. 964) suggests the need for "more forceful regulation in the other direction" in order to improve passengers' conduct relative to airlines (see also Bowran, 2004; Ravich, 2001). In this regard, the prohibition of partial and out-of-sequence ticket use can be seen as an airline's attempt to protect itself from travellers' abusive behaviour (Defossez, 2017). Southwest, for example, introduced its no-show policy in 2013, empowering the airline to forfeit and cancel all unused flight coupons in case a passenger forwent a portion of it (Southwest Airlines Co., 2014). The airline expects that the policy "will promote Customer behaviour" (p. 14). According to Schwieterman (2019), consumers engaging in the exploitation of fare loopholes balance on "the edge of an ethical precipice" (p. 57), and need to "decide for themselves the extent to which they consider the [...] practices to be serious ethical violations" (p. 59).

**Relationship between hackers and other passengers** – A considerable part of the reviewed material also elaborates on the ramifications for other passengers. A traveller throwing away the in- or outbound flight leg or starting/disembarking a flight at an intermediate city, constitutes a no-show on the unused flight segments. The exploitation of fare loopholes may consequently lead to increased and more fluctuating no-show rates. This, in turn, may impact the existing overbooking systems and result in more passengers being denied boarding (Garrow et al., 2011). As such, other passengers may be disadvantaged due to fare hackers' actions (see, e.g., Garrow et al., 2011; Schwieterman, 2019; Zook & Graham, 2018). In a study by Garrow and Koppelman (2004), for example, no-show rates for in- and outbound itineraries are found to amount to 10% and 6.2%, respectively. Since these figures may reflect passengers' exploitation of back-to-back tickets, the authors stress the importance of determining whether or not the exploitation of fare loopholes causes no-show rates to increase. Skorupski and Wierzbińska (2015) also briefly mention hidden-city and throwaway ticketing in their article on evaluating the waiting time for a late passenger. They recommend applying the model for missing passengers without checked-in baggage if a passenger is suspected to be engaging in the fare loopholes.

*Outside perspective* — Ethical concerns may also be raised about the impact of airline hacking on global climate change (Zook & Graham, 2018). According to Arnold (2013, p. 414), for example, "pricing practices due to which connecting flights are cheaper than direct flights, lead to more congestion and more emission". In a weblog post by Page (2015), the environmental consequences of hidden-city ticketing are also mentioned: "If a flight is substantially less full than anticipated, the fuel levels will be higher than needed and, therefore, the airlines will be burning more than necessary". However, (academic as well as non-academic) literature within this sub-area is scarce.

*The overall fairness of airlines' pricing strategies* — A final ethical debate pertains to the overall fairness of airlines' pricing strategies, which in essence may incentivise passengers to exploit various booking ploys. According to Boyd (2007, p. 115), "airlines pushed the boundaries of generally accepted pricing practices". Because of the complex fare-setting strategies employed by airlines, many travellers have lost their reference point to assess whether or not a displayed fare is market-conform (Boyd, 2007). As such, ticket prices are, to a certain extent, unpredictable (Lau, 2016). Whereas passengers seem to have submitted themselves to airlines' pricing strategies (Aslani et al., 2014; Schwieterman, 2019), many travellers argue that deceptive and unfair ticket pricing advertisement constitute an important issue (Aslani et al., 2014).

Also Cook and Billig (2017) touch upon the fairness of network revenue management, but argue that price discrimination both allows for the flexibility required by business travellers, and the discounted fares offered to (some) leisure passengers that would otherwise not exist. In this respect, Dunfee and Black (1996) point to the opposing interplay between airlines' revenue maximisation, consumers' perceptions of fair pricing, and the deceptive behaviour necessary to exploit hidden-city and back-to-back ticket opportunities. Travel agents, for example, experience an ethical conflict as their travel suppliers and consumers exhibit contrasting interests. An informal survey revealed that 75% of corporate travel managers circumvents airlines' fare rules to some degree, even though almost half of them considered it to be unethical (Dunfee & Black, 1996).

To date, passengers' exploitation of hidden-city tickets "remains and continues to be contentious" (Fones, 2015, p. 454), and the debate on the prohibition/permission of NSCs is still ongoing (Defossez, 2017).

# 7. Travel hacks: Who's fuelling the engine?

The review of newspaper articles, magazines, and (news) website articles reveals that the topic of airline booking ploys gained much importance in the 1990s, which can be attributed to the introduction of the PBOR legislative process in the U.S. More specifically, a considerable number of articles reports upon the various bill proposals, the 1996 class-action lawsuit against Delta Air Lines, Northwest Airlines and U.S. Airways, and the airlines' crackdown — with United Airlines and British Airways as key figures – on the booking ploys. With the lawsuit against Skiplagged in 2014, the topic of hidden-city ticketing sparked a new wave of widespread media attention. Related to this, multiple authors point to the increased *awareness* of the loopholes among the travelling public due to (the lawsuit against) Skiplagged, which may conversely reinforce their exploitation. Moreover, new upcoming technologies/platforms (e.g. Skiplagged) make it easier for consumers to find and exploit various alternative ticketing strategies. Similar to the academic literature, however, there is no agreement on the ethics of exploiting/prohibiting the partial and non-sequential use of flight tickets. Some authors actively promote the exploitation of the loopholes, other authors are more reluctant and caution their readers for the many risks related to (using) them.

Whereas multiple books covering a wide range of travel hacks exist (see, for example, Canady, 2008; Levinson & Brandt-Sarif, 2004; Lonely Planet, 2019; Tobias, 2016), a myriad of travel blogs and forums most likely constitute the main information-drivers and influential actors for consumers today. These platforms — with global member- and readerships — are often depicted as a form of 'electronic word of mouth' (Cocking, 2020) and may therefore play an important role in promoting the exploitation of

alternative ticketing strategies. In addition to informing travellers of the travel ploys and teaching them how to successfully engage in travel hacking, some forums also provide real-time opportunities to capitalise on travel hacks (e.g. FlyerTalk.com).

Although the majority of travel blogs/forums seem to be centred around earning and redeeming frequent flyer miles, many also cover (albeit to a much lesser extent) hiddencity, back-to-back, and throwaway ticketing. FlyerTalk.com, for example, has over 650 000 member accounts and constitutes the largest U.S. travel community (Zook & Graham, 2018). A simple FlyerTalk forum search of the key word "hidden-city ticketing" results in 980 threads and 995 posts if the option "Search Entire Posts" is selected, and 75 threads and 900 posts in case the search is limited to "Search Titles Only". Other examples of travel blogs/forums include, but are not limited to, Million Mile Secrets, One Mile at a Time, The Art of Non-Conformity, The Points Guy, Points with a Crew, Eye of the Flyer, Travel Codex, View from the Wing, Australian Frequent Flyers, The Cranky Flier, Point me to the Plane and Frequent Miler. It is however out of the scope of this review to provide an extensive, systematic reading of these information sources.

Finally, and surprisingly, hidden-city tickets are not only represented or promoted as a money-saving travel tactic. The final report of the task force on combating terrorism and foreign fighter travel (U.S. GAO, 2015), for example, indicates that American foreign fighters are encouraged by ISIS recruiters to use "broken travel" and hidden-city tickets in order to unsuspiciously travel to Syria.

# 8. Concluding remarks and research implications

In our review, we have tried to shed light on the diverse body of literature on hiddencity, throwaway, and back-to-back ticketing. Based on our database we identified four

main research clusters, i.e. (1) network revenue management, (2) aviation and consumer law, (3) tourism and business ethics, and (4) consumer marketing and travel journalism/media. Although several articles can be assigned to multiple research clusters, a lack of inter-disciplinary engagements is apparent. Overall, there is limited cross-referencing, and despite there being a solid body of scholarship it would be exaggerated to speak of a cogent research literature. An additional fault line running through each of these research clusters is the ethical dimension: some authors strongly oppose the exploitation of partial and out-of-sequence ticket use, others take a more nuanced position, and still others adopt a pro-consumer stance. This divergence is also apparent in the ways in which fare loopholes are represented in popular travel blogs, news(paper) articles, non-academic books, et cetera: some actively promote the exploitation of travel hacks (e.g., providing travellers with a 'guide' on how to save on travel cost), others primarily focus on their drawbacks (e.g., in terms of possible repercussions).

In light of this, we argue that a greater coherence within the literature could benefit our understanding of airline booking ploys: working towards more cross-fertilisation between individual contributions — both within as well as between research clusters — may (more) efficiently reveal prevailing or emerging ideas, approaches and/or judgements, as well as the underlying reasons that are at the root of them and/or the context in which they emerged. Moreover, a less fragmented body of literature may better expose the remaining gaps in knowledge.

The review of the existing literature reveals a number of these gaps, situated both within as well as on the intersection between the research clusters. While the legal and regulatory frameworks on partial and out-of-sequence ticket use are widely discussed,

literature on the (current) volume and exploitation of alternative ticketing opportunities is limited. Similarly, few studies quantitatively assess the impact of partial and out-ofsequence ticket use on the airlines' business in the short/long run. While some travel blogs/forums claim that airlines turn a blind eye to fare rule evasions whenever it suits them, the exploitation of alternative ticketing strategies may as well have reached a threshold beyond which airlines pro-actively crack down on the practices. We therefore believe that systematically addressing these questions constitutes an important future research avenue. To date, however, actual data on the exploitation of alternative ticketing strategies and the associated revenue losses/gains is still lacking. In this context, we argue that (a greater) collaboration between the different actors/stakeholders - airlines, travel agencies, and consumers - may be necessary to get a more detailed grasp on, amongst others, (1) the actual and potential scope of fare rule evasions in current air transport networks, (2) the net impact of this on airlines' revenue (management) and the supply of air transport services in the short/long run, and (3) the possible ramifications of this on leisure/business fares in the long run, as well as the demand for air transport services. Addressing these questions in all their complexity furthermore seems necessary to achieve a stable, publicly supported legal and regulatory framework. Notably, as the stakeholders involved may strive towards different objectives, a multi-disciplinary holistic approach should be adopted.

In addition, although various news channels have widely reported upon the booking ploys, their role in promoting or discouraging passengers' exploitation of these ploys seems under-researched. Related to this, an in-depth study on travel blogs/forums may enhance our understanding of the influence these sources exert on travellers' behaviour, and their possible catalytic role in the exploitation of alternative ticketing strategies. Hence, it may prove valuable to examine these possible interactions. However, querying

travel blogs/forums may pose a difficult challenge, as many do not provide a search tool and are underrepresented in popular search engines. Finally, given the ongoing developments in the legal and regulatory frameworks, follow-up research is recommended.

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