

The politics of innovation: Self-service on the Amsterdam trams

Roel Nahuis*

*Copernicus Institute for Sustainable Development and Innovation, Department of Innovation Studies,
University of Utrecht, Heidelberglaan 2, NL-3584 CS Utrecht*

Abstract

The introduction of self-service on Amsterdam's trams around 1970 meant replacement of conductors with several kinds of machines—and the emergence of fare dodging by passengers. To remedy the weaknesses of the technology, the Amsterdam Transport Company, its customers, and the city council found themselves involved in the politics of innovation. The democratic content of these politics is examined using insights from both political philosophy and actor network theory. The case shows that in most of the issues in the case, the circumstances impinging on a sense of justice for the company, or its customers, or interest groups, while posing a political problem for the city council. However, other issues were barely treated according to democratic principles, due to different modes of depoliticization.

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1. Introduction

Making decisions about innovation occurs ever more frequently in complex networks in which no dominant actors can be identified [1,2]. And experts, consultants, intermediaries, environmental and consumer organizations, and users themselves have acquired considerable influence in the processes of innovation. Whether the process succeeds or fails has become dependent on horizontal links and the capacity to create intelligent alliances with other actors [3–5].

* Tel: +31 30 253 6550; fax: +31 30 253 2749.

E-mail address: r.nahuis@geog.uu.nl.

In the matter of public transport, the Dutch government responded to this trend by granting transport companies more autonomy, creating competition, and transforming its own role from owner to procedural regulator [6]. However, the shift from established procedures for democratic politics to hybrid networks of interdependent actors has put a different face on the politics of innovation. The quality of democracy is no longer as evident.

This article is part of a larger project that aims to assess the consequences of this shift in terms of democratic legitimization. In three case studies, the democratic quality of decision making is assessed in specific contemporary circumstances related to the way in which the decision-making environment is organized. The case study reported in this article—the introduction of self-service on the Amsterdam trams around 1970—explores an innovation process in a fairly traditional setting, one in which the local government still had a dominant role, but it is not taken for granted that this political primacy enhanced the democratic quality. The other two cases (not reported here) explore more leveled networks and participatory decision making.

In all cases, the central research question is: What constitutes the democratic content of decision-making? In order to answer that question, three sub-questions are addressed:

- What were the issues?
- Which issues were political, and why?
- Were the political issues treated according to democratic principles?

The conditions that produce answers to the third question feed back directly to the central question.

2. Democracy and innovation

Democracy is a social structure with which Western nations are familiar. Adopting the ideas of political philosopher Claude Lefort [7–9], democracy is defined as a social structure that offers the opportunity to represent and solve societal conflicts on a political level. The social history of pluralist societies is composed of conflicting interests—for instance, trade unions that protest against the closure of factories; farmers who reject the expropriation of their land; women who fight for their rights. Dealing with such conflicts is one of the major concerns of politics. Politics involves the representation, discussion, and deliberation of various aspects of a conflict and its solutions, taking into account the interests of different parties. Lefort specifically rejects the idea of politics as a means for realizing a future society. Unlike totalitarian social structures, democracy is characterized as open-ended. While public interest does indeed motivate politicians, the content of public interest is indeterminate and continually shifts. Democracy means that political representatives pursue the public interest anew each time they seek the best possible solution to a conflict. Politics is, therefore, a relatively clear-cut, local, and antagonistic activity. It is the art “of dealing with the contingency of history, to respond creatively and decisively to unforeseen circumstances,” as Van Middelaar puts it [9, p. 84].

The starting point for this study is the assumption of *de facto* normativity, which turns innovation into a contestable enterprise. Artifacts are not socially neutral; they affect the world in which they are adopted by suggesting or enforcing specific usage. To capture this performative power of technology, Akrich [10] and Latour [11] introduced the notion of an *action program*. They suggest that designers ‘inscribe’ a program of action within the technical content of the new object [12]. For example, a self-service tram suggests that passengers themselves open the doors by pushing a button, buy a ticket in advance and stamp it in the appropriate ticket-stamping machine. The tram design materializes roles for actors, and scenes they have to play. “Like a film script, technical objects define a framework of action together with the actors and the space in which they are supposed to act” [10, p. 208]. However, Akrich stresses that action programs get their force from actors willing to take up their roles. People who are adversely affected may instead engage in anti-programs that aim to object, reject, or adjust [13,14].

In this article, I use the notions of action programs and anti-programs as descriptive tools to frame the case study. They help to explain the Amsterdam public transport company’s major stake: an action program that requires all tram passengers to serve themselves. Moreover, these notions make it possible to describe the innovation project in terms of conflicting interests. Each transformation of the action program can be seen as a solution to such conflicts. These solutions are explained and their political nature investigated.

3. Case selection and method

Making decisions about collective good is political almost by definition. Hence, if the democratization of innovation is relevant anywhere, then it certainly is in public services such as tram transport. Therefore, this case seems appropriate to address questions about politics and democracy.

The case, self-service on the Amsterdam trams, implied a considerable change in the way passengers used the trams. Conductors were taken-off the trams and different kinds of machines were introduced: ticket-vending machines, ticket-stamping machines, and buttons to operate the tram doors. Most of the tasks that had previously been performed by the conductors were redistributed, with some delegated to machines. The conductor’s total control was replaced by random checks carried out by no more than eight teams of ticket inspectors. In this new situation, fare-dodging soon posed a serious problem that threatened to destabilize the self-service system. The original concept presupposed self-discipline on the part of passengers, and if large numbers of passengers failed to appreciate and incorporate this ‘virtue,’ the foundation of the concept would fall apart. How did the Amsterdam public transport company and city council cope with this threat? How did they succeed in creating self-serving passengers from the mixed lot of tram users?

These empirical questions are addressed in terms of the dynamics between action programs and anti-programs. The action program instilled in the tram system can be described as: “Passengers will take care of their own tickets.” This action program only came about, however, after a series of transformations. These transformations are the object of this analysis. How are they to be explained? To what extent were these

transformations the outcome of a political process? And how should the democratic content of that process be evaluated?

4. Self-service on the Amsterdam trams (1965–1973)

At a press conference in July 1965, deputy director Van der Vos of the Municipal Transport Company (GVB) announced plans for self-service on the Amsterdam trams [15]. He cited two arguments in favor of self-service: cutting back on scarce and expensive labor, and providing quicker service. Yet there was another, more implicit reason motivating the GVB to introduce self-service in its trams: self-service suited the spirit of the times. Councilor Polak said: “In many service-providing companies, the customer is being brought in” [16]. GVB director Ossewaarde made a comparison with supermarkets: “I am convinced that it will succeed.... Look around: the traditional grocery is disappearing and new self-service shops are appearing everywhere. Why shouldn’t it work in our business?” [17]. While supermarkets did pave the way, self-service on the tram raised different questions. In particular, the problem of fare-dodging would become a recurring issue, even though experiences in other cities like Cologne, Frankfurt, and Stuttgart initially led to the expectation that fare-dodging would not be a major problem. Only 0.03–0.3% of all German passengers traveled illegally, depending on the inspection methods used [18].

Early in 1968, the city council agreed with a proposal put forward by the mayor and aldermen in which they presented the first phase of the GVB plan [19]. The company had asked for a loan to purchase ticket-dispensing and ticket-stamping machines for tram lines 1 and 2. The following extract summarizes how users were represented in this proposal:

Weekly tickets and annual season tickets do not need to be stamped.... Tickets bought outside the tram should be made valid after entering the tram by using the ticket-stamping machines... We propose to widen the method of random control by employing ticket inspectors to prevent fare-dodging.... We are aware that a great deal of attention should be given to informing the public, emphasizing the advantage of using weekly tickets or annual season tickets. [20, p. 191]

In this extract, at least four different representations of users can be identified: the subscriber, the responsible ticket buyer, the fare-dodger, and ignorant members of the public. Fare-dodgers and ignorant passengers would require specific attention. These passengers were perceived as deviants who should be disciplined and educated.

Indeed, fare-dodging emerged with the introduction of self-service on the tram. Prior to 1968, the task of control was combined with the sale of tickets, i.e. all passengers had to pass by the conductor. From 1968 on, passengers were required to buy a ticket in advance, and total control by the conductors was replaced by random checks on a smaller scale. It was these conditions, then, that actually enabled the emergence of fare-dodging. In fact, its formal emergence had already occurred just a couple of months earlier, because the regulations and tariff system adopted by the GVB did not include payment of an additional charge if a passenger was discovered traveling without a ticket. In order to continue the introduction of expanded self-service, this omission would have to be remedied.

So, the Amsterdam council decided to include a new article in the public transport regulations obliging passengers to obtain their own tickets [21], and fare-dodgers were fined NLG 1.50 (roughly 50¢ in those days). Soon this fine was raised to NLG 2.50 [22]. Moreover, the regulations were adjusted to allow inspectors to report offenses and to remove fare-dodgers from the tram.

Meanwhile, the GVB installed ticket machines and developed measures to deal with the problems of ignorant passengers and fare-dodgers. Education seemed appropriate for ignorant passengers, so the GVB organized press conferences, painted self-service trams in different colors, distributed flyers, and placed instruction placards at the stops. It published a special GVB newsletter explaining the different features of the system, and because many foreign tourists made use of the tram, the instructions and flyers were also translated into French, German, and English [23]. Users could no longer plead ignorance of the regulations; everybody without ticket was treated as a fare-dodger.

Dealing with fare-dodging, however, called for a somewhat different approach. The GVB employed about 80 ticket inspectors who carried out random checks in the trams. At certain stops, uniformed inspectors entered the tram in pairs, checked that passengers had tickets, left the tram, and got onto the next one [24]. This method of ticket inspection was intended to suggest the ‘omnipresence’ of inspectors.

The inspectors quickly identified different types of fare-dodgers. For instance, there were the ‘escapers’ who did not stamp their tickets as they entered the tram but did so as soon as the ticket inspectors made their entrance. “The sound sometimes resembled a machine gun,” said one inspector in an interview [25]. So the company revised its inspection strategy. One inspector was still in uniform, while the other one was dressed in civilian clothes—the latter attempting to catch the escapers as soon as he saw them stamping their tickets.

However, some fare-dodgers persisted despite the random ticket inspections. Among them were many ‘hippies’ who traveled to the Vondelpark each summer. “To them, paying isn’t an issue at all,” an inspector explained [26]. ‘Provos’ and hippies turned their refusal into a political statement, believing that public transport should be free [27]. But according to the GVB, this group was too small to be acknowledged as a problem. The company estimated that (only) 350,000 passengers had dodged fares in 1972 (in reality, an increase of more than 50% relative to 1971). A spokesperson explained: “Because many people purchase a season ticket and travel with a pass or transfer ticket, one might get the wrong impression that an excessive number of passengers are dodging fares. In reality, the number still does not exceed 1% of the total number of passengers” [28]. He ascribed the problem to wrong perceptions.

Nevertheless, the GVB also asked for an increase in the fine because, apart from the escapers and hippies, there was another type of fare-dodger: the ‘gambler.’ A ticket cost NLG 0.50 and, if caught, the fine was NLG 2.50. Thus not being caught for more than five journeys meant the user could realize a profit. Some people simply calculated and gambled. These gamblers were quite easy to deal with. They often paid quickly; they even had the NLG 2.50 in their hand if they were asked for their ticket [26]. However, to deal structurally with these gamblers, the company proposed increasing the fine to NLG 5.50 (still far too low, according to the GVB director). While a majority of the council agreed [29], some councilors specifically supported the notion that public transport should be free.

5. Analysis

Action programs are defined by the route the innovator wants his users to follow. The GVB's original action program, prior to 1968, required transfer tickets and season tickets that were inspected by a conductor who, at the same time, sold tickets to other passengers. During the introduction of self-service, the action program went through several transformations, most of which were basically additions. More elements were added to the technological system. These elements (organizational, legal, strategic) supported the vague action program inscribed on the ticket machines: 'Take care of your own tickets.' In the course of the process, seven transformations of this action program can be distinguished.

The first and most important transformation was the replacement of conductors by several kinds of machines. Increasing labor costs had resulted in structural shortages, which forced the GVB to raise its fares a couple of times in the first half of the 1960s. The council discussed each fare increase at great length [30]. In return, the GVB promised to increase the efficiency of its services, and on one occasion broached the idea of self-service which was thought would save on expensive and scarce labor [22]. This discussion also focused on the contribution or threat of different kinds of users to the promised level of efficiency, that is, on the users' motives for (not) paying. Fare-dodgers, for example, were repeatedly addressed but not really feared because, according to the mayor and aldermen, "experiments elsewhere show that the number of fare-dodgers will remain considerably below 1%" [20, p. 194].

Other non-financial consequences received little, if any, attention at this stage of the project—blind people who might have difficulty with the ticket machines; disabled persons or mothers with children who might have problems with the automatic doors; passengers who would have to do without a familiar (and sometimes entertaining) source of information; disabled persons who would be deprived of guaranteed seats because there no longer were conductors to mediate for this group with other passengers; vandals who now had a number of tempting (an unprotected) artifacts to destroy; and pickpockets who could widen their territory to include trams. These consequences were only addressed at later stages [31–36]. The council unanimously agreed on the proposal, without serious consideration of these side effects, because their commitment was focused on Amsterdam budget policy, and they saw an inefficient municipal company that had to be dealt with.

Illustrative of this attitude is the following episode from a later city council meeting. In a discussion about starting the second phase—introduction of self-service in the entire public transport network—left-wing Councilor Ten Brink addressed some of the possible side effects and pleaded for an extended experimental phase with both machines and conductors. But Alderman Hamm simply brushed this suggestion aside: "Mr. Ten Brink totally passes over the basics of the proposal, namely, the saving of expenses by the company through the disappearance of the conductor from the tram" [37, p. 361]. In short, money was the only decisive argument in the discussion.

In the new situation, after installation of the machines, passengers were required to take care of their own tickets. A moral appeal, asking passengers to behave responsibly, accompanied the installation of the machines [38]. However, some passengers remained indifferent. The appeal was reinforced by an adjustment in the GVB regulations that made

it possible to deal with the good and the bad in terms of legal and illegal activities. This second action program transformation—i.e. making it stronger—was quintessential political activity since formulating regulations and laws is what politicians ought to do. But while the decision seemed to concern merely the determination of a small fine, it also legitimized future measures. The ruling declared that it was now illegal to travel without a ticket, which paved the way for other GVB measures to identify and check abuse without additional political approvals. Thus it depoliticized the employment of ticket inspectors and the design of inspection strategies (more information below). Those measures were legitimized by the mandate implied in the ruling.

Yet, the moral appeal and adjusted laws did not result in all people paying their fares, particularly if they were unaware of the regulations. A public campaign was added to the action program, aimed at stopping claims of unawareness as a valid excuse. The need for this third transformation was easily agreed upon by the city council. Councilors only had one valid reason to object, which happened the first year after implementation. The company had failed to address the problem of foreigners, as the instructions were written only in Dutch. Subsequently, they were translated into German, English, and French [37].

But self-service without any form of inspection was still too much temptation. Uniformed ticket inspectors and inspection strategies were therefore added to the system. This fourth and fifth transformation—the employment of ticket inspectors and the redesign of their control strategies (using civilian clothes to catch escapers)—had little or no political relevance since the council had already agreed to charging fare-dodgers. But the employment of ticket inspectors did have strategic relevance to the GVB. Inspectors detected the escapers, who quickly stamped their tickets behind the backs of inspectors; they encountered hippies who refused to pay; they caught the gamblers who then readily paid their fines. This feedback helped the board learn more about the anti-programs of fare-dodgers, and they used that knowledge to develop customized interventions. In this sense the representation of users was merely a cognitive activity: interventions, like the design and redesign of control strategies, had been politically approved already through the regulation adjustments.

Random control by teams of conductors wearing uniforms or civilian clothes reduced the number of fare-dodgers but did not affect the anti-program of hippies who simply refused to pay their fares because they believed public transport should be free. GVB spokespersons could do little more than marginalize the problem ('no more than 1%') and reassure the public ('wrong impressions'). However, the press conference can also be considered as the sixth transformation of the action program—as a rhetoric intervention to gain support for the project. When the fare-dodging percentages were published, the problem increasingly became a subject of public suspicions. Newspapers were eager to comment, and journalists traveled along with inspectors to do participatory research [26,35]. The idea of free public transport received a great deal of attention. Experiments with free transport in Bologna and other Italian cities heightened the discussion. When the Socialist Youth demonstrated for free public transport in reaction to fare increases, 24 newspaper articles within three weeks were devoted to these actions [39]. Moreover, the new State Secretary of Transport, Public Works and Water Management, M. Van Hulst, had recently published his book, *Free Public Transport* [40]. The issue became more

popular and would eventually reach the city council if the opportunity presented itself. This was the case with the seventh transformation.

A last kind of anti-program was initiated by fare-dodgers who simply calculated the cost of the fines imposed against the cumulative costs of the fares. At first, the subsequent transformation of the action program—an increase of the fine—showed a pattern similar to the fifth. Inspectors not only identified escapers, but also the gamblers. Gambling implied another type of anti-program against inspection. Similar to redesigning the inspection methods (dressing one inspector in civilian clothes), the board of directors wanted to increase the fine in order to counteract the gambling anti-program. But dissimilarly, now it had to rely on the city council. To increase the fine, the GVB regulations would need to be adjusted yet again. The mayor and aldermen proposed raising the fine from NLG 2.50 to NLG 5.50 in response to increased levels of fare-dodging:

During the first years after the change of regulations... the number of infringements stayed within limits. The last two years however, after implementation of the self-service system on almost all tramlines, the number of passengers without a valid ticket has increased alarmingly. Therefore we think the time has come to raise the fine. [41, p. 1378]

A fundamental objection was made by Councilor Van Duijn. He sympathized with hippies and ‘provos,’ being one of them himself. Van Duijn did not find the increase in fare-dodgers alarming at all. On the contrary, he supported people who devised ways to use public transport free of charge. He referred to the ideas of State Secretary Van Hulten and rejected the fine increase as a further step away from the ideal of free public transport. In response, Alderman Brautigam answered: “If Mr. Van Duijn thinks it is a wrong step to take, then the only possible reaction is that the wrong step is taken within the existing legal order” [29, p. 978]. Brautigam’s response was the worst argument in favor of the best solution. The fine had to be raised simply because fare-dodgers traveled at the expense of fare-payers and because free transport would invoke problems of its own. Those arguments convinced most city councilors. But Van Duijn’s plea should not have been rejected by referring to the existing legal order, and he should not have accepted this rejection because the legal order (established 6 years earlier) was the actual issue at stake. Van Duijn wanted it changed on behalf of those people who advocated free public transport—a valid ambition—because adjusting legal orders to new circumstances is exactly what politicians ought to do.

6. Conclusions

In this case, the effectiveness of decisions taken by the public authorities in matters of innovation stood or fell on their ability to effectively anticipate the behavior of tram users. Specific action programs needed to be adjusted several times.

Action programs are the routes that innovators want their users to follow. As a heuristic tool, identification of subsequent transformations of those action programs was used to trace the underlying conflicts—users tended to develop and/or refine anti-programs that

enabled them to obstruct or dodge the GVB's action program. In turn, the company refined its action program in order to counteract the anti-programs. The 1973 self-service system developed via a route that needed seven action program transformations. These transformations were solutions to conflicts that the previous version had either established or continued.

At this point, an answer can be formulated to the first research question, What were the issues? In considering the kinds of conflicts that arose during the introduction of self-service, we found that they emerged from an imbalance between the interests of the users and the innovator. More specifically, conflicts emerged when a certain situation either adversely affected users or, more striking still, enabled a particular use that adversely affected the innovator. Examples of adversely affected users were the taxpayers in the old situation who suffered with an inefficient provision of services, and foreigners who were wrongly hassled by the imposition of fines. Situations that adversely affected the transport company were brought about by escapers, gamblers, and hippies who exploited self-service for their own interests.

Considering Lefort again, politics is conceived of as a process of conflict management relative to clear-cut settings, implying a third-party perspective. This third position emerged from the socio-technical controversies as its relevance sprang from the conflicts between action programs and anti-programs. This brings us to the second research question: Which issues were political issues and why? Or said another way: What constitutes the political nature of an issue? There were five issues addressed within the political context of the city council:

1. The decision whether to start the project at all was a political issue because the inefficiency of the service was a situation that the Amsterdam municipality and the tram passengers unjustly paid for. Besides, the decision was linked to the tariff system and the demand for general accessibility, for which the city council held strong historical responsibility.
2. Adjustment of the regulations was an associated political issue because the promised increase in efficiency required that an incomplete contract between the municipal transport company and its customers be remedied.
3. The public campaign was politically induced to prevent unfair impositions of fines to incidental and foreign users.
- 4 The increase of the fine was a political issue because gamblers unjustly traveled at the expense of fare-payers.
5. Discussion about free public transport, raised by the fine increase, was a political issue because hippies questioned the legitimacy of the legal order.

In all cases, the circumstances impinged on the sense of justice of either one of the involved parties—the company, customers, taxpayers, or hippies. The political nature of the issues depended on the validity of claims about the fairness of a situation or the proper distribution of responsibility. Claims appeared to be valid if they referred to generally accepted normative principles, which actors then tried to apply to a new situation. Thus, both the social circumstances (the actual conflict) and historical circumstances (what is fair?) constituted the political nature of a conflict.

This raises the third research question: ‘Were these political issues treated according to democratic principles?’ As far as the regulations (2), public campaign (3), and fine policy (4) were concerned, the question can be answered in the affirmative. The decisions were the result of open deliberations in which all relevant stakeholders were represented in the council, even with hindsight. Regarding the other issues, ‘democratic principles’ does not seem to be the right qualifier. Rather, three different modes of depoliticization can be distinguished. Depoliticization occurs when political decisions are taken outside political institutions. The first mode is a common practice in political processes and may be labeled as ‘delegation.’ The adjustment of regulations gave a mandate to the GVB to solve the problems with fare-dodgers. The city council thus delegated the employment of inspectors and the design and redesign of control strategies—the two remaining action program transformations—to the company. These interventions were already politically approved and therefore did not contradict democratic principles.

The second mode of depoliticization can be labeled as ‘juridification.’ Hippies had proclaimed their right to free public transport (5). Although hippies were adequately represented in the council, democratic principles were trampled on. Their claim was not taken seriously but was rejected on legal grounds, when in fact precisely the legal order was at stake. Juridification occurred because the political discussion was foreclosed by displacing the issue to a juridical context (that itself was already perceived as closed).

The third mode of depoliticization can be labeled ‘scientification.’ The most important political conflict—whether to finance the whole project or not (1)—appeared to be a mere economic discussion in which scientific facts were decisive. The pros and cons of self-service were defined in terms of financial benefits and costs: the estimated savings, the costs of investment, and the costs involved in dealing with fare-dodging. With regard to fare-dodgers, the GVB easily convinced the city council. Based on experiments in Germany, the company gave firm assurances that the number of fare-dodgers would remain ‘considerably below 1%.’ The Amsterdam city councilors relied on the results of the foreign-experiment study. They neither contested the numbers nor the putative similarity between the German and the Amsterdam public. Sharing the assumptions, focus, and conclusions of the study, city councilors generally perceived efficiency as the core issue and expected improvement as a matter of fact.

What constituted the democratic content of decision making about innovation? First of all, the issue itself: a (new) situation in the public domain impinging upon the sense of justice of the actors involved. Second, the way these issues were treated by public authorities: a public debate about all stakes at issue that was not foreclosed by contestable legislation, the reduction of stakes, or arbitrary predictions. In addition, laws, regulations, and mandates that resulted from prior democratic decisions provided democratic legitimization for depoliticization of new issues only if new circumstances did not give rise to claims of injustice that were not already addressed.

7. Epilogue

In the period after 1972, the self-service system gradually began to destabilize. Based on official GVB monitoring, 1% of the total number of passengers dodged

fare-paying in 1972. But it can be questioned whether this was a realistic figure [42]. Many fare-dodgers simply got out of the tram before their tickets were inspected, so these people were never included in the statistics [43]. Nevertheless, 1% was much higher than the 0.03% to 0.3% seen in German cities and, more alarming still, the percentage had already begun to increase, partly due to the GVB itself. The company stimulated sales of different kinds of season tickets, thus freeing passengers from the obligation to stamp their tickets. The original intent was to eliminate queues and improve service as a whole. After a special discount offer in 1971, a total of 30,000 passengers (15%) held a season ticket [44]. However, this also meant that many people entered the tram without stamping a ticket and potential fare-dodgers saw an open opportunity to do the same. During peak hours, about 80% of passengers traveled by season ticket. Freeke [45] states, with hindsight: “The appearance that nobody paid certainly seduced people to dodge fares.”

An extensive investigation done in 1974 showed that fare-dodging had risen to between 2.9% and 3.3% [46]. The investigators estimated the annual loss at NLG 2 million, which represented about 40% of the estimated savings that was supposed to be achieved through self-service. Meanwhile, ticket machines and stamping machines regularly began to break down all over Amsterdam [47]. How could ticket buyers behave responsibly if machine malfunctions prevented them from doing so? A newspaper describes how a tram user spent two guilders in vain, and kicking and shaking the machines did not help. Other nearby machines apparently were also defective. When the driver whose job it was to sell single tickets refused to open the front door (which was customary during peak hours), in the end the woman unwillingly felt forced to travel clandestine [48].

In 1977, a new zone tariff was introduced. This tariff system gave rise to yet another kind of fare-dodging: people stamped for fewer zones than they actually traveled [42]. This ‘partial fare-dodging’ was very hard to control because the boundary between fare-paying and fare-dodging became blurred. In 1979, the official number of fare-dodgers had grown to 5% [49].

Regular breakdowns of the ticket machines may be explained by criminal offences, which also became more conspicuous [45]. The ticket-vending machines in particular were often subject to vandalism because they contained money. But vandals entered the scene in other respects as well. They put chewing gum in the ticket-stamping machines, others tried to buy tickets using foreign coins, seats were regularly damaged, and pickpocketing raised questions about security. The tram appeared to be an easy, unrestrained, little-monitored domain for different sorts of offences. In 1977, Councilor Meijer pleaded for the return of conductors. He said: “The number of fare-dodgers has grown enormously, ticket sales don’t function, the service to the public has vanished, pickpocketing and robbery are a matter of course” [50].

Around 1980, a number of studies were conducted to investigate these trends [49], the character and motives of fare-dodgers [51], and also the possible return of conductors [36]. However, due to sunk investment and the convictions of authorities, the return of conductors was considered too costly and undesirable [36]. At that time, the project seemed to be difficult to reverse. Not until 1991 was the comeback finally realized, but only on Tram Line 4. Meanwhile the number of fare-dodgers had by now increased to 13% [52]. The GVB wanted conductors on all trams, but the company’s financial situation was still too fragile, so other funding was sought. With the help of a regional program for

subsidized labor, long-term unemployed persons were recruited for the jobs [52]. From 1991 on, conductors were gradually brought back on the Amsterdam trams, and in 2002, 12 out of 17 tramways were manned with conductors [53].

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- [16] *Het Vrije Volk*, 24 February; 1966.
- [17] *Het Parool*, 12 March; 1969.
- [18] *Het Vrije Volk*. Representatives of the GVB referred to a study about foreign experiments in a number of press conferences and city council meetings. Although references abound, it remains doubtful whether the study exists in any written form. An extensive search in four different archives in Amsterdam, as well as personal communication with two then closely involved council members, turned up nothing. Most probably the referred study was an informal report of a study tour by the directors of the GVB, 25 July; 1967.
- [19] City Council. *Zelfbediening op trams en autobussen*. vol. 2. Amsterdam: Gemeenteblad afd; 1968. p. 311–4.
- [20] City Council. *Invoering systeem van zelfbediening op trams en autobussen*. vol. 1 1968. p. 191–6.
- [21] City Council. *Besluit tot aanvulling van het Regelement en Tarief voor het vervoer door het Gemeentevervoerbedrijf*. vol. 2. Amsterdam: Gemeenteblad afd; 1967. p. 1156.
- [22] City Council. *Vaststelling Verordening op het zich bevinden in tramrijtuigen of personenveerboten zonder geldig plaatsbewijs*. Amsterdam: Gemeenteblad afd; 1968. p. 1977–8.
- [23] *Het Vrije Volk*, 7 February; 1968. *Algemeen Handelsblad*, 14 February; 1969. *Het Vrije Volk*, 13 March; 1969. *Nieuws van het GVB*, maart; 1969b. *Nieuws van de Dag*, 19 June; 1969.
- [24] *De Tijd*, 24 October; 1968.
- [25] Unknown source, approx. June; 1972. *Nieuwe Rotterdamse Courant*, approx., June; 1972.
- [26] From reports on the work of ticket inspectors, unknown source, 22 January; 1972.

- [27] Local activist Hans Hofman, to a journalist. *Tijd Maasbode*, 11 September; 1967. See also a note to the City Council from a left-wing party PSP. City Council, *Nota van het raadslid Ten Brink c.s., inzake het openbaar vervoer*, vol. 1. Amsterdam: Gemeenteblad afd; 1970, p. 27–36.
- [28] *Nieuwe Rotterdamse Courant*, approx., June; 1972. Similarly quoted in *Het Parool*, 3 June; 1972.
- [29] City Council. *Wijziging verordening plaatsbewijzen Gemeentevervoerbedrijf*. vol. 2. Gemeenteblad afd: Amsterdam; 1973 p. 976–82.
- [30] See, for example, City Council, *Tarieven gemeentevervoerbedrijf*, vol. 2. Amsterdam: Gemeenteblad afd; 1967, p. 1020–55.
- [31] *De Tijd*, 28 April; 1969.
- [32] *Het Parool*, 29 March; 1969.
- [33] *Nieuws van de Dag*, 18 Oktober; 1969.
- [34] *De Tijd*, 20 November; 1970.
- [35] *De Waarheid*, 21 January; 1972.
- [36] COCOV. *Wel of geen kondukteur in het stads-en streekvervoer*. Den Haag: Vereniging van Nederlandse Gemeenten; 1980.
- [37] City Council. *Zelfbediening op trams en autobussen*. vol. 2. Gemeenteblad afd: Amsterdam; 1969 p. 1378–9.
- [38] A picture in *Nieuws van het GVB* shows a woman stamping her ticket. The caption reads: “Did you already use the self-service tram? Then you are familiar with self-stamping like this charming passenger.” The newsletter contains many similar statements, March; 1969, p. 3.
- [39] For example, *De Volkskrant*, 17 February; 1969.
- [40] Van Hulst M. *Gratis openbaar vervoer*. Deventer: Kluwer; 1972.
- [41] City Council. *Wijziging van de Verordening op het zich bevinden in tramrijtuigen of personenveerboten zonder geldig plaatsbewijs*. vol. 1. Gemeenteblad afd: Amsterdam; 1973 pp. 1378–9.
- [42] Duparc HJA. *Een eeuw elektrische exploitatie van de tram in Amsterdam*. Delft: Nivo Drukkerij & DTP Service; 2000.
- [43] Personal communication with a former Amsterdam fare-dodger at the 4S conference, Milwaukee, WI; 2002.
- [44] *Het Parool*, 15 October; 1971.
- [45] Freeke J. *De kunst van het vervoer. Een beeld van 150 jaar Amsterdam openbaar vervoer*. Den Haag: SDU uitgeverij; 1990 p. 138.
- [46] *De Tijd*, 17 April; 1974.
- [47] *Algemeen Handelsblad*, 9 November; 1970.
- [48] *De Waarheid*, 21 April; 1972.
- [49] COCOV. *Rapport over de situatie met betrekking tot de verstoring van de orde en veiligheid bij het stads- en streekvervoer*. Den Haag: Ministerie van Verkeer en Waterstaat; 1979.
- [50] *De Volkskrant*, 22 January; 1994.
- [51] *Veldkamp Marktondzoek. Zwartrijden in Amsterdam*. Gemeentevervoerbedrijf: Amsterdam; 1981.
- [52] Visser N. *In grote lijnen. Het Amsterdamse openbaar vervoer, 1900–2000*. Amsterdam: Gemeentevervoerbedrijf; 2000.
- [53] *GVB-Nieuws*. Summer; 2002.

Roel Nahuis is a doctoral student in the Department of Innovation Studies at the University of Utrecht in the Netherlands. He has Master’s degree in the Philosophy of Science, Technology and Society. His current research interests include innovation, social constructivism, political philosophy, and public transport.