

OPEN JUSTICE IN THE NETHERLANDS: AN OVERVIEW

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1. Introduction to Open Justice

Gaining public trust, achieving transparency, stimulating innovations, and delivering economic growth have been considered as some of the driving-forces behind Open Data initiatives for government organisations in recent years. Traditionally Open Justice, which refers to making courts and their proceedings open and public so that what is done in the name of justice can be scrutinised and criticised, has been recognised even long before transparency became an important aspect of governance (McLachlin, 2014). Nowadays, the scope of Open Justice extends beyond simply court proceedings and judgments and includes also opening the data that are gathered within the administration processes and the judicial procedures of the whole justice branch of government. In addition to the range of data sources and types, the scope of Open Justice has grown in terms of the objectives of Open Justice. Open Data initiatives have also gained momentum in the justice domain in the Netherlands. In this chapter we build on the results of, mainly, Bargh et al. (2016a; 2016b; 2016c; 2014) and provide an overview of Open Justice Data initiatives and their trends in the Netherlands.

This chapter is organised as follows. In Section 2, we elaborate on how the Open Data movement has impacted the justice domain and enhanced its scope beyond the traditional principle of Open Justice. In Section 3, we describe a number of Open Data initiatives in the justice domain of the Netherlands. Subsequently, we present the concept of Semi-Open Data and elabo-

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rate on its relevancy for partially opened justice domain data sets in Section 4. We discuss the current maturity status of the Open Data in the justice domain in the Netherlands and present our vision for its development in Section 5. Finally, we draw some conclusions in Section 6.

2. Open data in justice domain

With the advent of governments' Open Data initiatives, we argue that the scope of Open Justice is extended along, at least, two directions. Firstly, in the justice domain, the objective sought from being open is extended from the transparency principle, as sought in procedural and common law, to also the other principles of open government, namely: accountability, collaboration and participation (Jiménez-Gómez, 2017). Jiménez-Gómez (2017) coins the term 'Open Judiciary' to refer to this extended view. Secondly, we observe that the scope of the data has expanded from the data of court proceedings and judgments to the data gathered also within the administration processes and procedures of the whole justice branch of government. Elena and van Schalkwyk (2017) name court ruling data, statistics on operations, and budget and administrative data as the 'least' a judiciary should open. This set of data types, we conclude, is subject to expansion.

As a consequence of the second extension direction, we note that the data within the justice domain are generally gathered by various independent organisations involved in countries' justice domain. Lampoltshammer et al. (2017) use the term 'justice system' to refer to the (chain of) bodies in the apparatus of law, which are involved in creating data, from legislative texts to judicial decisions; and not just those being involved in courts. In the case of Dutch government's justice branch, the justice domain includes three legal systems pertaining to criminal law, civil law and administrative law. The independent organisations and agencies involved in, for example, Dutch criminal justice system include the Police, the Public Prosecution Service, the courts, the Central Fine Collection Agency, the Custodial Institutions Agency (i.e., prisons) and the Probation Service (van den Braak et al., 2013). Similarly, one can identify various organisations involved in other subbranches of Dutch justice domain, pertaining to civil law and administrative law.

For many years the justice administration and procedural data have been published by our organisation, i.e., the Research and Documentation Centre (abbreviated as WODC in Dutch) of the Dutch ministry of Justice and Security, in a report annually (Kalidien et al., 2016). On the other hand, an Internet site, called rechtspraak.nl, publishes Netherlands' court proceedings and judgments for criminal, civil and administrative cases regularly. In the following section, we will elaborate on these initiatives in more detail. As another example, the open justice initiative led by the California Department of Justice publishes a wide range of data types from various sources within the criminal justice system (like trends in arrests, crimes, death in custody, hate crimes, homicide, juvenile court and probation).

Considering the variety of the organisations involved in justice systems, we conclude that opening the data pertained to traditional Open Justice (i.e., judicial and court data) provides a limited view on such justice systems. This argument becomes even stronger when one notes that nowadays in certain countries the organisations involved in crime detection, prosecution, trial and probation have overlapping tasks and functions, which cannot easily be separated. In the Netherlands, for example, the arrest of a suspect does not necessarily lead to further prosecution. In some cases, the police may decide to handle the case by dismissing it, proposing a transaction, or imposing a punishment order. Moreover, the public prosecutor decides which cases to be prosecuted or dealt with by courts. The public prosecutor may dismiss a case, propose a transaction, impose a punishment order, or decide to send the case to court (van der Leij, 2016).

In summary, we argue that opening data in the justice domain (i.e., the justice branch of government) must cover the whole justice system of a country and not be limited to traditional judicial data. One may call this Open Justice in its extended sense or alternatively name it as Open Data in the justice domain. Consequently, Open Data in the justice domain not only contributes to realising the traditional vision of Open Justice, but also helps realising the progressive vision of Smart Justice, see (Netten et al., 2018) and the references therein.

3. Open justice initiatives in the Netherlands

There have been a number of open data initiatives in the justice domain in the Netherlands. In this section, we provide four examples of these Dutch open justice initiatives.

3.1. Justice administration and procedural data

Since 1985 the justice administration and procedural data (abbreviated as C&R in Dutch) have been published by the WODC in a report annually. The report includes the crime statistics at the national level in The Netherlands. These statistics are derived from the data provided by a large number of the organisations involved in the Dutch criminal justice system (van Dijk et al., 2018). The statistics cover various topics, related to crime and law enforcement (Kalidien, 2016) as well as local police and city councils (Smit and van Dijk, 2014) in the Netherlands. The statistics are presented in 36 tables with different and various attributes and records. The total number of the attributes is about 550.

3.2. Court verdicts

An Internet site called [rechtspraak.nl](https://www.rechtspraak.nl/) (more precisely, <https://www.rechtspraak.nl/>) publishes Netherlands' court proceedings and judgments for criminal, civil and administrative cases regularly. The site offers several alternatives

to search for/in court proceedings. There is a manual available on the site that guides and supports users to search for cases. One can search by means of a number of keywords (e.g., murder case and civil case) or a number of criteria such as judgements, date of verdict, date of publication, jurisdictions and the type of judging organisation (e.g., the court of appeal).

We estimate that the court database of the site *rechtspraak.nl* contains about 473.000 cases currently. This estimation is based on two queries, posed to the site. In the first query, we searched for the term 'the' via the search engine and in the second query we searched for all cases between 1 February 1919 and 31 January 2019. The site replied with "473031 cases" to both queries. Note that the cases published on the site *Rechtspraak.nl* are only a fraction of the cases treated by the Dutch courts. The courts are responsible for placing the judgments and determining which verdicts can be published on the site. The decision for publishing these judgments and verdicts is based on a number of criteria such as: Being concerned with the courts of appeal or the supreme court, having media attention, relating to criminal justice cases with an imposed unconditional prison sentence of at least four years, relating to offences against human lives (such as murder, manslaughter and culpable homicide), relating to European Law and being issued by the EU court, or being concerned with those court rulings that could become a directive for other future cases.

The site provides also information about different courts and other judging organisations in the Netherlands, like court of appeal or the supreme court. Furthermore, the site is targeted for different type of users, i.e., there are separated interfaces for barristers, lawyers and civilians.

3.3. Police open data

Via the portal *data.politie.nl* the Dutch Police publishes its data related to registered crime, police performance and police operations. The published data are public, free of charge, royalty free, according to open standards, and easily accessible. Via the portal one can easily compile tables and graphs. A user that accesses the site *data.politie.nl* is able to select one of the following themes: business management, crime, and police performance. Business management includes the police data on Human Resource Management (HRM) indicators. These HRM indicators are presented nationwide and per organisational unit (note that there are 14 organisational units of the Police in total in the Netherlands). Using a topic filter, the user can see the data on absenteeism, organisational strengths, and non-organisational strengths. The second theme, i.e., the crime theme, presents the numbers of various crimes registered by the Police monthly. These data include also the crime types and the locations of the crimes. The data are presented in both tables or graphs. The third theme presents some data on police performance indicators at a national level or regional level (i.e., for municipalities). Example indicators are response times to emergency calls and response times on

identity checks. All data sets available on the site are easy to export to a file in html or csv format.

3.4. Other examples

The Dutch government uses the web portal *data.overheid.nl* to publish data about 17 government related themes, such as finance, culture and recreation, education and science, traffic, social security themes. Two of the themes are related to the Dutch justice system, namely: *public order and safety* theme and law theme. Next to each theme, the number of the data sets available for that theme is given. The themes with the highest number of data sets are *nature and environment*, *economics*, and *governance* themes (ranging between 2000 and 4000 published sets). The public order and safety theme and law theme are at the other side of the list, with 153 and 62 datasets published, respectively.

Selecting a theme guides the user to a sorted list of the datasets pertaining to that theme. If required, several filter options can be applied to reduce the list. One of the options is to select the publisher of the data, such as the Police or Statistics Netherlands. When a dataset is selected, a general description of the data set is shown and also other meta data about the data set are given, such as the source and the link that gives access to the data set. For downloading a data set, the user can usually opt for exporting the data in a particular format (like html, csv or gml).

Dutch municipalities frequently publish data pertaining to different social topics within their municipalities. Beside via the *data.overheid.nl* portal as mentioned above, municipalities publish their data pertaining to, for example, the districts and neighbourhoods within their municipalities via other Internet sites. For example, *denhaag.buurtmonitor.nl* is a web portal of the municipality of the Hague that publishes some data on different themes at the district and/or neighbourhood level. In addition, the site provides some concise reports with statistical information about the development of the district or neighbourhood on a particular theme, like poverty or crime. One of the themes in the web portal of the municipality of The Hague is concerned with the quality of life and safety. Within this theme, the data about crime and disorder are presented. The user has the option to filter these data per year, per type of offense, and per district or neighbourhood. It is easy to export these data to a file in excel or csv format.

4. Semi-open justice domain data

Many public organisations, particularly those in the justice domain, have been hesitant and unable to open their data in a way that fully satisfies all Open Data requirements, e.g., the data being opened as raw as possible (or as they are), for everybody, timely, with primacy, permanence, with appropriate meta-data, etc. These hesitancy and inability are the case where, for example, the data to be opened have inconsistent, imprecise, uncertain, missing, and in-

complete data objects (thus, having low quality), have private or business sensitive information (conceivably when combined with other datasets or background information), or have proprietary and unstandardised format and semantics. These issues and deficiencies often exist for the data in the justice domain (van den Braak et al., 2013; Kalidien et al., 2010). Opening such data according to Open Data requirements (i.e., as they are, to the public, etc.) may lead to various problems such as privacy disclosures, sensitive business information disclosures, misinterpretations and misleading outcomes, and no or low economic growth. Consequently, organisations could not open such data according to the Open Data criteria, despite their willingness to share their data with some modifications and edition, in a limited scope (e.g., discoverable online but not downloadable), or in a PDF (Portable Document Format) format.

There are, however, many data opening initiatives, particularly in the justice domain, that partially satisfy the Open Data requirements. Through investing in time, efforts and resources, organisations can eliminate data sensitivity, improve data quality, harmonise data format, and create appropriate metadata for the data. These operations, however, not only inflict extra costs on organisations, but also result in opening only processed data. Both aspects (i.e., being costly and being modified) quite often violate some basic requirements of Open Data. To make these partially Open Data initiatives visible, Bargh (et al., 2016b, 2016c) coin the concept of Semi-Open Data to mark those data opening initiatives that do not fully adhere to all Open Data requirements, while promoting (some of) Open Data objectives. In this section, we elaborate on the motivation for and the concept of Semi-Open Data and present an example from the Dutch criminal justice system that can be characterised as Semi-Open Justice Data.

4.1. Motivations for Semi-Open Data

A large number of public organisations, particularly those in the justice domain, put enormous amount of efforts in order to address the privacy, misinterpretation and misleading challenges and do share a modified form of their data with the public. But these data sharing initiatives are not classified as Open Data. For example, the shared data are processed, aggregated, and offered to specific data consumers (e.g., scientists) in order to protect privacy of data subjects or to enhance the quality of data. Despite all these efforts, such organisations cannot position themselves as Open Data compliant and therefore cannot demonstrate their true dedication towards the ideals and objectives of Open Data in being, for example, transparent and supportive of innovations and economic growth. This (negative) image can be costly for public organisations, as they may lose the public trust and the benefits of well-informed societies and citizens. Being unable to share their data according to the full requirements of Open Data and not being recognised when sharing their processed data are two sides of the same problem that public organisations, particularly those in the justice domain, face currently.

One cannot consider opening of processed and not-for-free datasets as Open Data, while they do serve the same purposes of Open Data to some degrees. For example, entrepreneurs can purchase the processed data to make innovative services and products, leading to economic growth. Independent domain experts and the public can learn about public organisations by using the (high quality) processed data and can examine whether the public organisations adhere to their missions as well as to existing laws and regulations. As such, not-fully-compliant Open Data initiatives do also aspire and drive individuals, governments, and businesses for improving their existing or devising new policies, services, products, and processes.

One way to address the abovementioned problem is to acknowledge those not fully Open Data compliant initiatives, which basically push the frontiers of information sharing towards the ideals of Open Data. Acknowledging these partially Open Data initiatives, makes the public organisations behind those initiatives and their efforts visible within the Open Data landscape. This visibility not only encourages the organisations behind such initiatives to continue opening (more of) their data, but also provides a more realistic view on the landscape of Open Data (Bargh et al., 2016b). Recognising, acknowledging, and encouraging these initiatives are particularly important in the justice domain where it is often infeasible to meet all requirements of Open Data.

4.2. Definition of Semi-Open Data

To make partially Open Data initiatives visible, Bargh (et al., 2016b) coin the concept of Semi-Open Data to mark those data opening initiatives that do not fully adhere to all Open Data requirements while promoting (some of) Open Data objectives. More specifically,

“Semi-Open Data paradigm include those data sharing solutions that aim at Open Data objectives (like transparency, compliance, innovation, decision support, cost reduction, participation, and collaboration) but do not fulfil all conditions of Open Data” (p. 10, Bargh et al., 2016b).

As such, the term Semi-Open Data refers to a wide spectrum of data sharing initiatives that fall between two extremes of closed/confidential data and Open Data. A main step towards making Semi-Open Data initiatives visible is to indicate their positions on the spectrum between the two extremes of closed data and Open Data. In other words, one should assess the degree of adherence of these Semi-Open Data initiatives to the requirements and thus objective of Open Data. In (Bargh et al., 2016b) we use the term “degree of openness” to refer to how much Semi-Open Data initiatives adhere to the requirements of Open Data and provide a method for a systematic assessment of the degree of openness of a dataset shared by an organisation. To this end, the devised method assesses the degree of openness of Semi-Open Data initiatives based on the Open Data requirements, which, in turn, are based on the Open Definition (Open Definition, 2018). Unlike most existing assessment

methods that make a binary decision about whether or not a data sharing initiative fulfils all requirements of Open Data, the proposed method adopts a multi-dimensional multi-level measurement approach to quantify the degree of openness of Semi-Open Data initiatives in terms of their adherence to the Open Data requirements. As such, the method provides a more granular indication of openness with respect to that provided by existing binary assessment methods.

4.3. Example case

The WODC publishes its funded research data directly or indirectly via a portal managed by a Trusted Third Party (TTP). This TTP is a national organisation called Data Archiving and Networked Services (DANS). DANS was setup in 2005 by the Dutch government to encourage governmental institutions to use DANS' infrastructures and services for opening government information to the public. At the moment, DANS is used to archive some of WODC's anonymised research data. Moreover, DANS is involved in data access authorisation process for deciding whether to grant someone access to a dataset or not, see (Bargh et al., 2014; 2016a).

To share the research centre's datasets with scientists, the WODC consider the datasets of completed research for dissemination if they are in compliance with some criteria such as not being confidential, not being reused by the centre for monitoring or longitudinal research, not being insufficiently representative, and not being unreliable/invalid. After uploading an anonymised dataset and its metadata to the DANS servers, a data requester, e.g., a scientific researcher, can use the metadata at the DANS site to find about the centre's datasets. If interested to download a dataset, the researcher fills in a web form at the DANS's website, and DANS sends a data request derived from the filled Web form to the WODC via email. At the WODC, the data request goes through a rigorous procedure to authorise sharing the dataset. If the access is granted, DANS delivers the data to the data requester via email.

Ideally an open dataset should be open for everybody. In the example mentioned here, the datasets are uploaded to some authorised scientists. This is a typical case of Semi-Open Data as defined in the previous subsection. Along this dimension of 'for the public', according to definition of Semi-Open Data (Bargh et al., 2016b), one can define a number of ordinal levels starting from 'share with no one' to 'share with the public', corresponding to closed (or confidential) data and Open Data settings, respectively. In the case of data sharing via DANS mentioned above, there is an intermittent level between these extreme levels, namely 'share data within a specific group'. One can define also other intermittent levels in practice, such as 'share data within a department of an organisation', 'share data within an organisation/ministry', and 'share data among a federation of organisations'. Providing data at these intermediary levels results in a case of Semi-Open Data.

5. Maturity of Open Data initiatives in justice domain

Current trends (and future directions) for Open Justice in the Netherlands can be characterised based on an e-government maturity model such as the one proposed in (Lee and Kwak, 2012). The maturity model of Lee and Kwak (2012) consists of five levels: Initial conditions, data transparency, open participation, open collaboration, and ubiquitous engagement. Using this maturity model, we reflect upon the current status of Open Justice initiatives in the Netherlands in Subsection 5.1 and sketch our vision for achieving higher maturity levels in the future in Subsection 5.2.

5.1. Current status

The two first levels of the model of (Lee and Kwak, 2012) are of particular interest for us to express the current status of Open Justice initiatives in the Netherlands. Level 1 is concerned with the initial conditions, focusing primarily on cataloguing and broadcasting information to the public with no or few metrics to assess public engagement. Level 2 is about data transparency, focusing on increasing transparency of government processes and performance by (a) publishing relevant, high-value, and high-impact data online and sharing them with the public; and (b) establishing data management functions as well as improving and assuring data quality in terms of accuracy, consistency, and timeliness. We notice that most public organisations in the Netherlands, particularly those in the justice domain, are in a transition state, moving from Level 1 to Level 2. At this transition state, a lot of efforts are put to improve the quality of data and share high-value and high-impact data with the public.

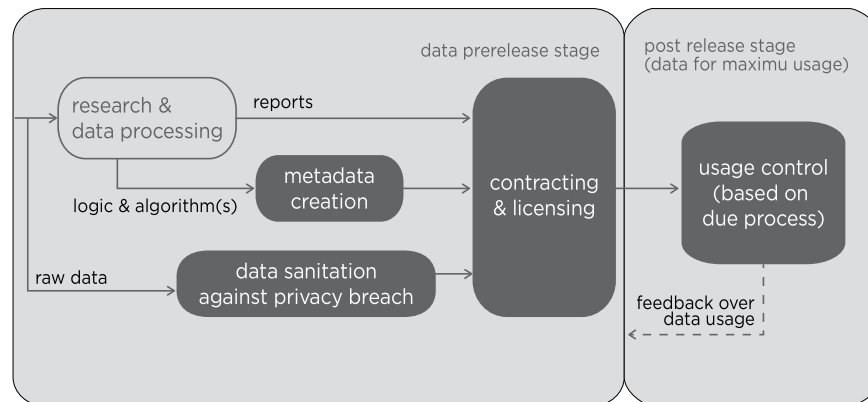
We also witness emerging initiatives within justice domain in the Netherlands, as in other countries, to promote the use of Open Data. These initiatives are often in the form of living labs to seek out how to make use of justice domain datasets in a responsible way, i.e., where the risks of, for example, privacy breaches and biased outcomes can be eliminated or contained at an acceptable level. Therefore, these living lab initiatives can be characterised as a form of Semi-Open Data, which aim at achieving open participation and open collaboration levels (i.e., moving towards the smart government vision) in the maturity model of (Lee and Kwak, 2012).

5.2. A vision for the future

In order to achieve the higher levels of the Open Data maturity model, e.g., open participation, open collaboration, and ubiquitous engagement levels; the barriers of Open Data must be settled. Two main Open Data barriers are related to privacy protection and data quality management. If these challenges are not addressed adequately, as we argued, personal data disclosure and data misinterpretation risks may arise. Therefore, we have envisioned an Open Data infrastructure for the Dutch justice domain, as depicted in Figure 1. The Open Data infrastructure encompasses technical and procedural measures to enable data opening. As shown in the figure, the raw data, which contain personal information potentially, are used for (scientific and/or statis-

tical) research and data processing. This activity results in aggregated data and reports, which do not contain personal information anymore, as well as enriched/processed data, which may contain some personal information. The aggregated data and reports are shared with the public freely.

Figure 1: An open data infrastructure envisioned for the Dutch justice domain



The raw data and enhanced data are also good candidates for being shared with the public as Open Data (as well as with specific groups such as scholars, scientists and data-journalists). These data, nevertheless, should be protected against privacy risks and the required trade-offs should be made and evaluated. The component called 'personal data sanitising' in Figure 1 contains all such data protection activities. For sanitising datasets against personal disclosure risks, privacy hackathons in a controlled environment can be arranged in order to find privacy leaks in the datasets in a responsible way. To this end, a close cooperation with universities and university colleges can be sought.

The data sanitation process needs to be well documented in the form of metadata so that data consumers can become aware of the processes done on the sanitised data. Such metadata prevent drawing wrong conclusions that otherwise may arise due to applying mitigation measures against data disclosure risks. All metadata, i.e., the data about the data, should also be opened as well. In addition to providing some information about the sanitisation process, the metadata concern the description of variables, possible variable values and semantics, data structures, the logic and the algorithms with which the data can be (or have been) processed.

In principle, Open Data can be reused without restrictions, i.e., there are no copyright, database rights or other rights applicable to the data. Nevertheless, we foresee that some licensing ((for example Creative Commons licenses) is needed to be applies in certain cases of data opening to regulate the conditions under which the opened data may be used. Using these licenses, one can build further privacy guarantees, especially if it cannot be excluded

that the opened data are traceable back to persons. We are aware that in such cases where restrictions have been imposed, we don't have Open Data in its traditional sense. Nevertheless, we think that even such a restrictive data opening could deliver some social benefits.

The Open Data infrastructure can also offer some tools in a toolbox for analysing opened datasets. In addition to a collection of data analysis tools, some guidance for choosing the right tool and a manual for using the chosen tool can be part of the infrastructure (note that such toolboxes are not drawn in Figure 1). The documentation about the toolbox and its tools can be dataset specific and, therefore, the corresponding documentation can be regarded as part of the metadata of the opened dataset. With using these tools and manuals, we expect, the use of Open Data can be stimulated.

Monitoring the proper data usage can facilitate opening those datasets that otherwise would not be opened due to the aforementioned concerns (i.e., the barriers of open data). Among others, the use of opened dataset can be monitored to see whether it is in line with privacy laws and regulations. Further, data consumers can proactively share their experiences about the potentials and pitfalls of the specific datasets they used and analysed. The results of the monitoring process and the data usage experiences can be fed back to the data opener, as shown in Figure 1, for improving the future open data initiatives.

6. Conclusion

In the advent of Open Data advances in the justice domain (i.e., the justice branch of government), we argued that opening data should cover the whole justice system of a country (i.e., not being limited to traditional judicial data) and the objectives of Open Justice include also accountability, collaboration and participation (i.e., not being limited to transparency). As a result, Open Data in the justice domain not only contributes to realisation of the traditional vision of Open Justice, but also helps realisation of the progressive vision of Smart Justice.

After describing a number of Open Data initiatives in the justice domain of the Netherlands, we elaborated on the concept of Semi-Open Data. In this way, we argued, one can recognise those data opening initiatives that do not fully adhere to all Open Data requirements, while promoting (some of) the Open Data objectives. Based on the open government maturity model proposed in (Lee and Kwak, 2012), we reflected upon the current status of Open Data initiatives in the justice domain of the Netherlands. Currently, these initiatives focus on cataloguing and broadcasting information to the public and on publishing high-value/impact data online and establishing data management functions (denoted by maturity Level 1 and 2 in (Lee and Kwak, 2012), respectively).

At the end, we sketched our vision for achieving the higher levels of the maturity model, namely: open participation, open collaboration, and ubiquitous engagement. We envisioned an Open Data infrastructure for the Dutch justice domain that aims at, among others, addressing two main barriers of Open Data (i.e., privacy protection and data quality management) as well as providing a number of data analysis tools and guidelines to stimulate the use of opened data sets in a responsible way. To this end, we elaborated on the need for monitoring the proper use of opened data sets and gathering the experience of data consumers about the datasets they used in order to promote the use of Open Data and to improve future Open Data initiatives. In this way, we foresee, the traditional vision of Open Justice can be enhanced to the progressive vision of Smart Justice.

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