



Information behaviour in legal decision-making: a literature review of models relevant to street-level bureaucrats

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Abstract

Introduction. We investigated the information behaviour of street-level bureaucrats (individuals in public services). Our two objectives were: first to develop a theoretical framework that supports interdisciplinary research on legal decision-making processes, and second to deepen our understanding of how these individuals collect and use information in contexts such as asylum decision-making.

Method. We conducted a comprehensive literature review, systematically searching for relevant publications and empirical studies related to the information behaviour of street-level bureaucrats. Following a thorough selection process, we identified 34 relevant publications.

Analysis. For our qualitative analysis, we first coded the process-based models identified in the publications, followed by the findings from the empirical studies. We then compared the resulting codes to categorise the elements of information behaviour, merged them, and grouped them into three clusters.

Results. We regard these clusters as components: activities, users, and information. Together with their respective elements, these components form a new framework and provide a methodological contribution to the study of legal decision-making processes. The framework was then applied to analyse the use of country of origin information by Dutch asylum caseworkers, informed by findings from a previous literature review on their information behaviour.

Conclusion. The developed conceptual framework may serve as a basis for future empirical research into the information behaviour of street-level bureaucrats, particularly asylum caseworkers. This (future) research on information behaviour introduces a valuable and novel perspective on legal decision-making processes. Gaining greater insights into how decision-makers seek, select, create, interpret, and communicate information facilitates a more comprehensive understanding of legal decision-making processes.

1. Introduction

The information required for a legal decision does not materialise on its own. A pertinent example is the way Dutch asylum caseworkers collect and apply country of origin information when examining asylum requests. To reach an objective and impartial decision, caseworkers require relevant, precise, and up-to-date information about the applicant's country of origin. This information provides them with an overview of the security and human rights situations that can influence any decisions needed to grant or deny asylum (ACCORD, 2024). However, it is unclear how caseworkers actually collect and use this information. While the outcomes of these processes are documented in the asylum case files, the presence and quality of the information can vary considerably. In some cases, files submitted to the Dutch courts contained either outdated (Dutch District Court, 6 December 2024, ECLI:NL:RBDHA:2024:20460) or insufficient data (Dutch District Court, 3 February 2025, ECLI:NL:RBDHA:2025:1201), while in others, the country of origin information was missing entirely (Dutch District Court, 31 October 2024, ECLI:NL:RBDHA:2024:17798).

Understanding how information is searched for, used and communicated enhances the transparency of the decision-making process. This applies to various types of individuals in public services, including decision-makers in migration services. By studying their information behaviour, we gain valuable insights into their decision-making process. For example, this makes it possible to ascertain whether they consult colleagues or use tools like ChatGPT when processing requests in addition to their standard sources and the types of information they consider relevant.

Furthermore, analysing how decision-makers handle information can help identify influencing factors and their compliance with legal requirements. In the example above, one of the legal requirements when processing asylum requests is to use precise, up-to-date, and relevant country of origin information (Directives EU 2011/95 and 2013/32 and Regulations (EU) 2024/1347 and 2024/1348). Understanding how this requirement is implemented in practice can contribute to ensuring an objective and impartial decision-making process.

Various research designs and methods can be used to study how decision-makers handle information. For this study, we reviewed existing knowledge about the information behaviour of decision-makers. To this end, we conducted a comprehensive review of the literature on existing models that depict the information behaviour of street-level bureaucrats, such as asylum caseworkers. This article focuses on these models. The results of any future interviews or observations of asylum caseworkers are not included in this study.

1.1 Street-level bureaucracy and information behaviour

In this literature review, we examined publications exploring the information behaviour of public service employees, also known as *street-level bureaucrats*. Street-level bureaucracy is an established concept in public administration research (Chang & Brewer, 2023). It refers to those public employees who interact directly with individual members of the public and have some degree of discretion in how they enforce the regulations, laws and policies in their daily tasks (Lipsky, 2010). While we do not discuss the concept itself in detail in this paper, we used it as a criterion for selecting the relevant literature. Specifically, we focused on studies that describe the information behaviour of public service employees who interact directly with individuals and have discretion over how they implement policies in response to individual requests. Asylum caseworkers, who, as mentioned in the introduction, require country of origin information, are an example of street-level bureaucrats (Severijns, 2019). Our objective was to gain insights into their information behaviour.

Although peoples' professional lives are a common context for studying information behaviour (Case & Given, 2016c), relatively little has been published on the information behaviour of asylum caseworkers. Therefore, in our literature review, we focus on street-level bureaucrats in general.

We analysed studies on the information behaviour of government employees with similar executive duties, in other words, those working at a municipality who handle citizen applications, for example. Consequently, our findings are not only relevant to asylum caseworkers, but also to a broader group of street-level bureaucrats.

Information behaviour refers to the way people interact with information, particularly how they seek and use it (Greifeneder & Schlebbe, 2022). This includes both actively searching for information and accidentally encountering it, as well as behaviours such as avoiding information. The broader context in which information behaviour occurs is, amongst others, partly determined by factors such as time and emotions (Case & Given, 2016a).

Information behaviour research is an established discipline within library and information science. However, using information behaviour models to explain decision-making processes within administrative law, more specifically, within the asylum process, is an area which, to our knowledge, is under-researched. Information behaviour research is thus a promising, yet extensive, field of study, partly due to the large number of theories and models it encompasses.

In this literature review, we focus on person and context-oriented models and empirical studies of information behaviour, rather than system-oriented approaches (Case & Given, 2016b), and we do not address underlying theories (Fisher et al., 2005). Information behaviour models are simplified representations of the complex processes, practices and activities involved in information behaviour. These models are usually presented in graphical and textual formats (Savolainen, 2019). Preferably, they are based on empirical research findings and/or the analysis of previous empirical and theoretical work (Ford, 2015; Savolainen, 2021).

In recent decades, several information behaviour models have been developed in the field of library and information sciences, some of which have been assembled into meta-models (Shenton & Hay-Gibson, 2012). These meta-models are higher-order models based on or derived from existing models. We hypothesise that they contain elements that may potentially explain street-level bureaucrats' information behaviour. Alongside meta-models, studies examining information behaviour in the workplace help to explain how street-level bureaucrats like asylum caseworkers interact with information.

1.2 Research question and purpose of the literature review

The main focus of our study was to examine how decision-makers working in executive government agencies collect and use information to inform their decisions.

We divided this main question into the following three sub-questions:

- Which meta-models for information behaviour are found in the scientific literature?
- What is known from specific studies on the information behaviour of executive government employees?
- What are the corresponding elements of the (meta)models and the specific studies?

We used these questions to develop a theoretical framework which highlights the complexity of information behaviour and contributes to a more complete understanding of decision-making, focusing specifically on information gathering and use during this process. The framework is also intended to facilitate interdisciplinary research into information behaviour within legal decision-making processes, with the aim of improving the quality and efficiency of legal decision-making.

We addressed our research questions by conducting an exploratory, systematic and transparent literature review. By analysing theoretical as well as empirical studies on the topic, we charted the breadth of the research field (Munn et al., 2018, 2022) to gain a thorough understanding of the field

and to identify its key characteristics (Arksey & O'Malley, 2005; Munn et al., 2022). The results have enabled us to reflect on the information behaviour of decision-makers in general and of those involved in asylum procedures in particular.

In the following sections, we first describe our methods in detail before presenting the results: a new conceptual framework. In the discussion, we use this framework to reflect on existing knowledge regarding the information behaviour of asylum caseworkers. Finally, we conclude with a summary and general considerations on how information behaviour can enrich our understanding of legal decision-making processes.

2. Method: Literature review

To report on our literature review, we followed PRISMA guidelines for scoping reviews (Tricco et al., 2018) to collect, select and analyse a representative sample of the literature in a transparent and reproducible way (Baude et al., 2017; Kostense, 2024).

The design, conduct and reporting were primarily the responsibility of the first author. However, as the second author played an important complementary role, we explicitly acknowledge the second author's contributions at each stage of the search, selection and analysis process.

2.1 Search and selection process

We took a two-phase approach, as outlined below. First, we searched for publications providing an overview of meta-models. Second, we looked for specific studies on the information behaviour of government employees. Figure 1 summarises this process and presents it as an adapted PRISMA flow diagram (Page et al., 2021).

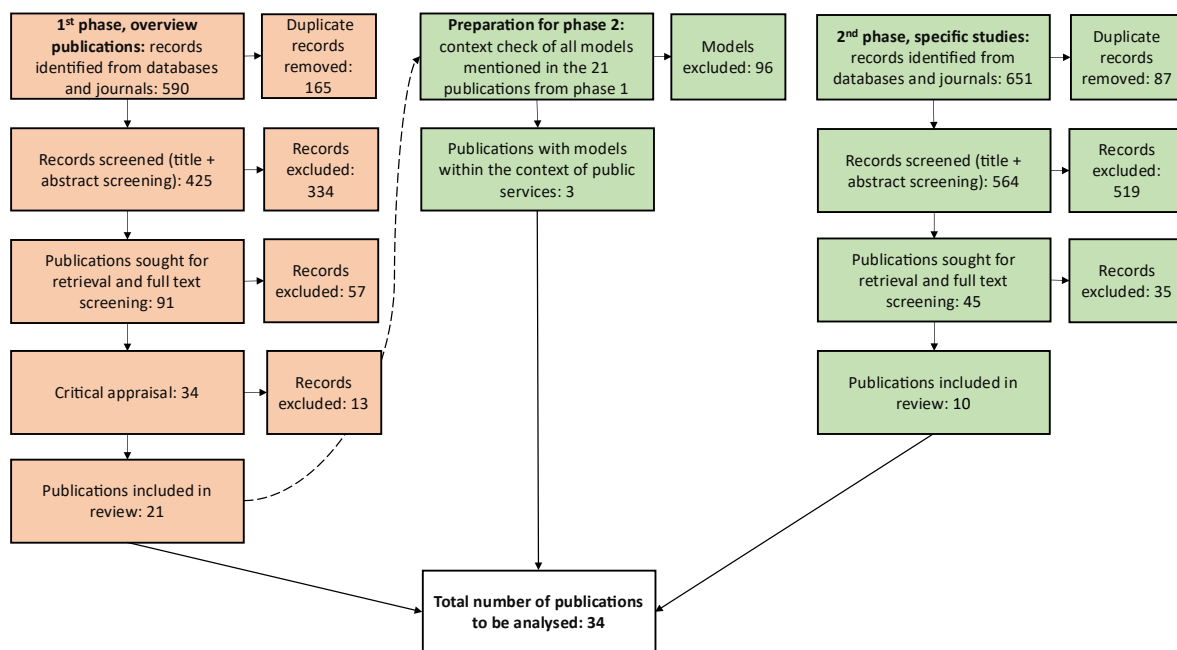


Figure 1. Search and selection process summary.

In the first phase, we identified relevant overview publications on information behaviour. We searched for books via RUQuest (Radboud University Library database) and on publisher platforms, such as Oxford Handbooks, Routledge Handbooks, and Cambridge Core. We also searched for scholarly articles and conference papers in Web of Science (WoS) and Library, Information Science & Technology Abstracts (LISTA). Our search strategies included combinations of search terms, citation topics (WoS) and thesaurus terms (LISTA), supplemented by searches in leading journals.

The full details of the WoS search strategy and the complete list of journals can be found in Appendix 1 (Tables 1A and 1B).

These searches yielded 590 references, of which 425 remained after deduplication. Based on criteria including publication type, accessibility, study design and relevance (see Appendix 2, table 1), we selected 34 publications. In the interest of maintaining a narrower focus, some well-known works were excluded from the study, including those by Kuhlthau (1991). However, these works are indirectly represented through the selected overview publications. For example, Wilson (1999) incorporates the results of Kuhlthau's research in his overview publication. We assessed the quality of the 34 publications using a seven-question binary scoring system (see Appendix 2, Table 2). Only those that achieved at least five affirmative responses were retained. This resulted in 21 publications.

In the second phase, we extracted all referenced models from the 21 overview publications, identifying over 100 models in total. Approximately one third of these models originated in a work context, but only three were potentially relevant to street-level bureaucrats. To address this gap, we conducted additional searches focusing specifically on models related to information behaviour in executive government settings. These supplementary searches included structured searches queries in WoS, LISTA and the International Bibliography of the Social Sciences (IBSS), as well as in relevant legal journals not indexed in these databases. The search strategy and journal lists can be found in Appendix 1 (Tables 2A and 2B).

The second phase of our search process yielded 651 references. After deduplication, 564 remained. Using a broad definition of executive government, such as migration services and municipal departments, we selected 10 relevant publications. The selection criteria are outlined in Appendix 2 (Table 3).

To ensure reliability, the second author reselected a random sample of 10% of references from both phases. Any discrepancies were discussed and resolved collaboratively. A total of 34 publications were included in the final analysis (see Appendix 3).

2.2 Analysis

For our qualitative analysis, we first examined the overview publications from phase 1, followed by the (empirical) studies from phase 2. We then checked and merged the codes, grouping them into three clusters. We explain this analysis process in more detail below, and Figure 2 provides a summary.

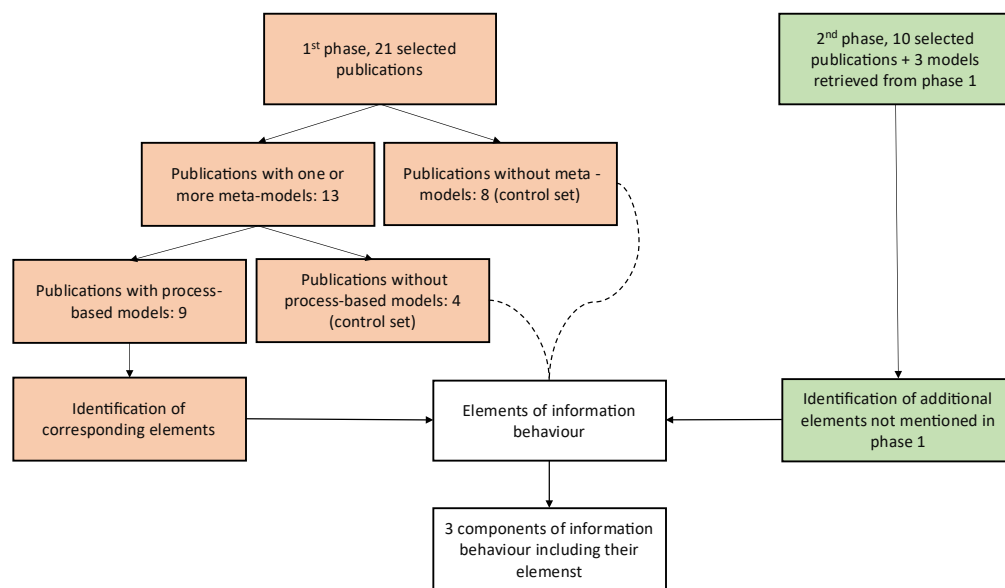


Figure 2. Analysis process summary.

First, we extracted comparable meta-models from the selected publications. As the publications described different types of meta-models such as conceptual, process-based, or mathematical models, which are difficult to compare, we focused on process-based meta-models. We coded nine process-based models in order to identify their elements (see Appendix 4) and developed a summary of common elements. These were then validated by comparing them with the 12 publications without process-based meta-models (the control set). This consultation is shown as a dotted line in Figure 2.

In the second phase, we examined the ten specific studies on the information behaviour of government employees. We also incorporated the three models from phase 1 into our analysis. Moreover, we extracted elements not mentioned in phase 1.

In the final step, we combined all elements from phase 1 and 2 to form three content clusters. To avoid a possible one-sided or distorted view by the main author, this classification was discussed with the second author and adjusted where necessary. We describe the final version of the three clusters in the next section.

3. Results: Framework for studying information behaviour

Our analysis resulted in the classification of information behaviour elements into three clusters: activities and behaviours; users and their environment; and information and access to it. These clusters collectively constitute a framework for the information behaviour of street-level bureaucrats and form the essential components of this framework.

Table 1 presents an overview of these components, along with their associated elements. For each element, we provide a minimum of one publication in which it is referenced. This does not preclude elements from being discussed in any of the other publications. The elements enumerated in the table do not represent all potential elements of information behaviour; we exclusively include those that were derivable from the analysed publications. It is important to note that the table is not intended to be exhaustive and can be supplemented as required.

1.Activities and behaviours	2.Users and their environment	3.Information and access to it
Information Search: Individual search for information (Whetsell et al., 2021) Joint search for information (Prekop, 2002) Formal and informal (Whetsell et al., 2021) Passive and active search (Wilson, 1999) Using information: Finding suitable or not suitable information (Robson & Robinson, 2013) Creating information (Meyer, 2016) Feedback (Leckie et al., 1996) close information gap, bridge or do nothing (Godbold, 2006) Use to complete tasks (Byström & Järvelin, 1995) Reject information or search further (Robson & Robinson, 2013) Reformulate or abandon information needs (Agarwal, 2022) Gathering information (Meyer, 2016) Communicating information (Robson & Robinson, 2013) and sharing (Agarwal, 2022)	User Characteristics: Information users may include individuals (Agarwal, 2022) Intermediaries (Niedzwiedzka, 2003) Groups (Prekop, 2002) Organisations (Choo et al., 2008) Machines (Cantarelli et al., 2023) They differ in terms of cognition, thoughts, values (Agarwal, 2022) demographic background, expertise, psychological factors and feelings (Robson & Robinson, 2013) information literacy (Levin, 1991) and other competencies (Widén et al., 2014), cognitive, affective and sensorimotor structures (Meyer, 2016), motivation and expectations (Sigaard & Skov, 2015). Subjective mechanisms driving information behaviour (Cantarelli et al., 2023) Information needs: Individual information needs (Agarwal, 2022) Shared information needs (Prekop, 2002) Environmental factors: Routines and workflows (Byström & Hansen, 2005) Information culture within an organisation consisting of behaviors and values (Choo et al., 2008) Organizational structure (Whetsell et al., 2021) and culture (Katopol, 2007) Roles and tasks of individuals (Leckie et al., 1996) and groups (Prekop, 2002) Complexity of tasks (Byström & Järvelin, 1995) Colleagues and social interaction (Irvine-Smith, 2019) Legislation (Yang & Wu, 2021)	Information Features: Characteristics of information influence usage (Cantarelli et al., 2023) Availability, relevance and usefulness of information (Leckie et al., 1996) Means of accessing the information: Access to information (Whetsell et al., 2021) Different channels and sources (Byström & Järvelin, 1995) such as other persons, books, systems (Agarwal, 2022) or proprietary knowledge, search systems and libraries (Niedzwiedzka, 2003) search systems such as databases, websites and other digital information resources (Robson & Robinson, 2013) internet (Niedzwiedzka 2003) information technologies (Ault & Gleason, 2003) and artificial intelligence (Cantarelli et al., 2023). Available time (Levin, 1991)

Table 1. Components of information behaviour and their elements

3.1 Activities and behaviours

The first component *activities and behaviours* contains the practical actions aimed at seeking and using information. The idea behind this component is that it is manifested in observable behaviours which can include formal or informal searching (Whetsell et al., 2021) or passive or active searching (Wilson, 1999). Moreover, we identified the use of information to complete tasks (Byström & Järvelin, 1995) and communication about information (Robson & Robinson, 2013) as activities.

We compared our results with Zhong, Han and Hansen's (2023) systematic review for verification. They identified the following activities: information seeking; information sharing; information use; information creation; information management; and information avoidance. Their activities align with those identified in our analysis. Additionally, our findings indicate that these activities are carried out by both individuals and groups.

Regarding the term *information use*, we note that the authors of the analysed process-based models and specific studies interpret this term differently. To clarify, we consulted a publication without a process-based model, namely that of Greifeneder and Schlebbe (2022). In their conceptual model, they consider *information use* to be an umbrella term for various forms of interaction with information, as well as an activity that occurs after the information has been found. This is also true when not using information. We adopted this umbrella term, considering information sharing to be a form of information use, for example.

3.2 Users and their environment

The second component focuses on the various types of information users and their characteristics within a given environment. Information users can be individuals (Agarwal, 2022), intermediaries and groups of people (Prekop, 2002), organisations (Choo et al., 2008) or machines (Cantarelli et al., 2023). Users perform information behaviours. They have different characteristics and act within a certain environment that influences them. For our literature review, we selected publications that focused on users rather than systems, thus it is logical that users form one of the components.

When discussing the first component (activities and behaviours), we noted that information seeking and use can occur both individually and collaboratively. Therefore, users (the second component) may have shared information needs (Prekop, 2002) and collaborate with colleagues (Byström & Järvelin, 1995; Irvine-Smith, 2019). Additionally, users are influenced by organisational culture (Katopol, 2007).

By *individual information behaviour*, we describe how individuals seek and use information. According to Zhong, Han and Hansen (2023), studying information behaviour involves paying attention to individual cognition. In their textbook, Case and Given (2016a), explain that information seeking is usually studied as the work of one person at a time, but they also emphasise that people often work in groups and actively share information with each other. They see collaboration as a spectrum of solo and group activities.

Collaborative information behaviour is mentioned in several publications. For example, in his meta-synthesis, Ndumbaro (2023) analyses models of collaborative information behaviour and concludes that these offer an alternative to modelling human information behaviour from the group perspective.

3.3 Information and access to it

The third component encompasses the characteristics of information, its sources, and the technologies used to find and access it. It is important to note that the terms *information* and *information source* are not synonymous, yet they are occasionally used interchangeably.

Shenton and Hay-Gibson (2012), who categorised various meta-models, emphasise that there has been virtually no agreement on the definition of the term *information* for years. They point to the

International Encyclopaedia of Library and Information Science, which suggests that it may be the least precise term used in the library and information sector. According to Bates, who describes seven categories of definitions, this lack of uniformity in the definition can be explained by the fact that the phenomenon has been studied by scholars from a variety of different disciplines (Bates, 2010).

However, it is generally accepted that *data* and *information* are not synonymous. In library and information science, *information* refers to data that has been presented in such a way that meaning can be assigned to it (Case & Given, 2016a). For instance, the number 22,400,000 is not informative in itself; it only becomes information when used in a report about people in Yemen who depend on humanitarian aid. This information is then represented as the number 22.4 million, in a document (physical or digital): for example, the Dutch Ministry of Foreign Affairs, General Official Report Yemen, September 2023. This general report is also the source of information. Incidentally, the report refers to UN aid agencies as the primary source.

How data and information are used depends on whether people can access them. The articles analysed in this literature review demonstrate that cognitive, practical, and structural forms of access influence the use of information in professional and public-sector settings. For example, Leckie et al. (1996) show that professionals only use information of which they are aware and which they can easily access. Their awareness of databases, colleagues, literature, and informal networks determines their choice of sources, making practical accessibility, knowing where information is and being able to retrieve it, central to information-seeking. Cantarelli et al. (2023) emphasise that the ease with which information can be recalled or retrieved influences decision-making. Finally, Whetsell et al. (2021) demonstrate that formal structures, such as hierarchies, departmental boundaries and permission pathways, determine who can approach whom for information. This structural access strongly influences the use of information, as employees tend to rely on sources embedded in the organisational channels available to them.

3.4 The interrelatedness

Together, the three components form a unit that encompasses the interaction between users, activities, and information in employee information behaviour. They are interrelated, but do not influence each other in a single direction. A change to an element in one component can thus affect elements in the other components. For instance, a change in the supply of information (component 3) can impact information behaviour (component 1) which can then affect both organisational culture (component 2) and the available sources of information, particularly if colleagues are also considered as sources of information. We have expressed the close relationship between the three components in Figure 3, the *triad* of information behaviour. We chose this term because a triad refers to a group of three things that belong together.

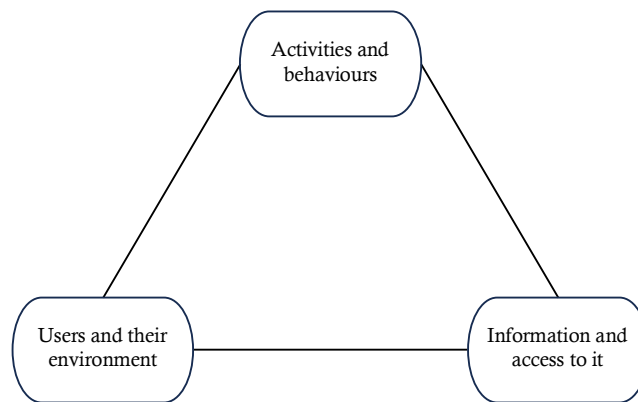


Figure 3. Triad of street-level bureaucrats' information behaviour in legal decision-making procedures.

4. Discussion: Application of the framework to the information behaviour of Dutch asylum caseworkers

4.1 Possible application of the framework in data collection and analysis

Research in the field of information behaviour typically involves a variety of methodologies, data collection methods, and analysis techniques (Case, p. 221). Depending on the research question, the chosen methodology and method, the framework can serve as a useful guide. It outlines the key areas of a study, particularly at the outset of a study, and serves as a map for the relatively broad topic of information behaviour among street-level bureaucrats. Frameworks like ours can also provide a template for the initial stages of data collection and analysis during and after fieldwork (Miles et al., 2020). For instance, it could help to define key topics for interviews and assist in the design of interview guides. During the data extraction and analysis phase, the framework can be used to develop a codebook by guiding the selection of relevant code categories or by grouping codes into broader patterns or themes.

We intended to test our new framework by conducting interviews and observations with Dutch asylum caseworkers, and we therefore sought permission from the Dutch Migration Service (IND). Although permission was not granted at this stage, the framework can be validated through future field research. For now, we are applying it to our existing knowledge of country of origin information in the asylum procedure, drawing on a comprehensive literature review published earlier. For this previous literature review, publications were searched for in five databases and additional searches were conducted in journal archives and on the websites of organisations involved in establishing guidelines for the use of country of origin information (Fötsch, 2022). This earlier comprehensive literature review of academic and grey literature revealed some elements of the asylum caseworkers' information behaviour.

We consider these elements and additional recent information alongside the theoretical framework with its three core components: activities, users, and information. We map each of these components to the context of Dutch asylum caseworkers and provide an outline of what is known about their information behaviour related to country of origin information.

4.2 Activities of asylum caseworkers

The first component of the framework comprises the activities and behaviours of individuals. In the context of asylum casework, one such activity is searching for information on countries of origin. Internal work instructions provide guidance for this task. One instruction, for example, explains how to search and use country of origin information, allowing caseworkers to either consult colleagues from the Team Research and Expertise Country and Language (TOELT) or carry out searches independently (IND, 2020).

Another key activity is using country of origin information at important stages of the asylum procedure, such as preparing for hearings or examining applicants' statements (IND, 2020). The country of origin information is essential for assessing claims relating to identity, nationality, origin, and fear of persecution, harm or becoming a victim of random violence upon return (IND, 2020). However, final decisions may lack clear, traceable references to sources, which complicates judicial review. In one case, involving an asylum seeker from Sierra Leone, an outdated (11-year-old) source was used, and the judge ruled that more recent country of origin information could be expected to be used (Dutch District Court, 21 August 2024, NL23.5154). In another case involving an asylum seeker from Libya, the absence of any referenced country of origin information was criticized (Dutch District Court, 12 August 2024, ECLI:NL:RBDHA:2024:127642024). In a later interim ruling on an appeal by a Syrian asylum seeker, the District Court ordered the Minister for Asylum and Migration to include the General Official Report on Syria 2025 in the case file. Withholding this information would be contrary to EU law (Dutch District Court, 5 June 2025, ECLI:NL:RBDHA:2025:9840).

Beyond individual efforts, the search for and use of country of origin information often involves collaboration. Task division across roles, such as between hearing officers and decision-makers, means that multiple staff members may engage with the same information. Collaboration can also take place between asylum caseworkers and country of origin experts. In his study of the Austrian Migration Service, Van der Kist (2024) refers to such collaboration as *tinkering*: a process in which experts gather available data and adapt it to meet the specific needs of caseworkers.

4.3 Asylum caseworkers and their environment

The second component of the framework consists of the users and their environment. In the context of asylum caseworkers at the IND, the users are the caseworkers themselves. Little is known about their characteristics, apart from the significant high number of new staff recruited between 2018 and 2022. Many of the newly appointed staff begin their roles without sufficient experience (Maasland et al., 2023), or formal training, especially during periods of increased asylum applications (Severijns, 2019).

In addition to knowledge and experience, information needs form an important characteristic of asylum caseworkers: both formal and informal needs play a role. On the formal side, legal requirements mandate the use of country of origin information when examining (article 10 (3) Directive 2013/32/EU and article 34(2) Regulation EU 2024/1348) and assessing (article 4(3) Directive 2011/95/EU and Regulation EU 2024/1347) asylum requests. Informal needs are less well documented, but Severijns (2019) observes that Dutch asylum caseworkers often experience uncertainties about the facts presented during hearings. This may, in turn, lead to additional or different information needs related to the search for and use of country of origin information.

Severijns' (2019) research also found that internal norms, referred to as an 'oral tradition of practice', shape the working environment within IND. These norms are considered part of the broader organisational or information culture and may influence the information behaviour of caseworkers. Beyond the recognition of these internal practices, however, little is known about the organisational or information culture within the IND. In contrast, a study of the Swiss migration system entitled *Getting in line with the office* revealed that institutional socialisation causes

decision-makers to adopt a shared mindset that ultimately influences their decisions (Affolter, 2021).

The search for and use of country information is partly formalised in European legislation, such as Directive EU 2013/32, which is to be replaced by Asylum Standards Regulation EU 2024/1347, and Directive EU 2011/95, which is to be replaced by Procedure Regulation EU 2024/1348. The European Union Agency for Asylum (EUAA, 2023), is one of several sources that provide more guidelines on the use of country of origin information.

The extent to which legislation and the guidelines of the European Union Agency for Asylum affect the practice of searching for and using country information is not entirely clear. A study in Germany shows that caseworkers often adopt pragmatic approaches, balancing formal requirements with local constraints, and relying on both official and informal norms (Schittenhelm & Schneider, 2017). In the Dutch context, Severijns states that legal frameworks create both clarity and uncertainty among Dutch asylum caseworkers (Severijns, 2019), and this may influence their behaviour in seeking information.

4.4 Country of origin information and access to it

The final component is the information and the ability to access it. For asylum caseworkers, country of origin information is particularly important to support their decision-making process. The characteristics of this information can influence how it is used which seems to be the case regarding the use of country of origin information. Caseworkers of other migration services consider government information to be more reliable than information coming from other sources (European Migration Network, 2015; Tsangarides, 2009). In the Netherlands, government information can include general, thematic or individual reports. Additionally, Dutch asylum caseworkers use reports from other organisations, news reports, websites, and social media (Adviescommissie voor Vreemdelingenzaken, 2020).

Within the IND, TOELT is a special department responsible for country of origin information. This department comprises four units: 'Country', 'Language', 'Regional Information Centre' (RIC) and 'Interpreter Coordinators' (TOELT, 2020). The 'Country' and 'RIC' units both use and supply information to caseworkers, who can request support (IND, 2020) or search for country of origin information independently.

The TOELT also prepares requests for individual reports, which are investigations by the Ministry of Foreign Affairs into asylum-related affairs (Ministerie van Buitenlandse Zaken, 2022). Asylum caseworkers cannot initiate or conduct these investigations themselves. The same applies to general reports: while TOELT staff can assist with drafting the Terms of Reference, the research and fact-finding are conducted externally (Ministerie van Buitenlandse Zaken, 2023).

Due to the limited publicly available information regarding access to country of origin information, we cannot comment on its impact on the information behaviour of asylum caseworkers. However, several reports have highlighted concerns regarding information channels and time constraints. For example, a 2022 Justice and Security report notes that information is fragmented and difficult to locate, which risks staff missing key updates. Time constraints can also discourage the staff from consulting experts such as TOELT (Inspectie Justitie en Veiligheid, 2022). A 2023 report notes that the growing volume of information requires more time and effort to process, leading to increased trade-offs in decision-making (Buimer & Maasland, 2024; Maasland et al., 2023). This is consistent with our earlier acknowledgement that access to information influences how it is used, as emphasised by Leckie and Cantarelli, for example.

Beyond information channels and time constraints, we expect emerging technologies to have a significant impact on access to country of origin information. As these technologies become more accessible, reliance on them is likely to grow (Meyer, 2016), conferences (Ministerie van Justitie en

Veiligheid, 2023), and reports confirm this trend. For example, the IND 2024 annual report mentions exploring Artificial Intelligence (AI) (Inspectie Justitie en Veiligheid, 2022), while the 2025 plan states that AI will be implemented in core processes (IND, 2024). However, their plans remain unclear on details such as the type of AI to be used and how it will be implemented. A briefing published by the European Parliamentary Research Service provides more transparency on this issue. It becomes clear in this briefing, for example, that the IND uses a text mining tool (Case Matcher) to identify applications made on similar grounds (Dumbrava, 2025).

We assume that AI technology is also widely used when it comes to country of origin information. We base our assumption on the fact the ACUTE research consortium is trying to get an overview of existing AI activities in the field of country of origin information and to provide guidelines on the use of AI (ACCORD, 2025). Furthermore, the international scientific literature highlights examples of the use of AI when researching country of origin information. For instance, Kinchin and Mougouie (2022) observe that machine learning can assist in identifying outdated, inaccurate or prejudiced sources. They also recommend incorporating humanitarian data analysis, such as satellite imagery and socio-political data, to develop consistent and current country databases. Similarly, Kanoulas (2025) explores the use of large language models, noting their ability to quickly translate and summarise texts containing country of origin information. However, Kanoulas also warns of the risks, as large language models may be trained using biased or outdated data.

4.5 Limitations

While this literature review offers insights into the information behaviour of street-level bureaucrats such as asylum caseworkers, we note two limitations. Firstly, we did not include all publications on this topic, as we conducted a delimited search strategy and applied selection criteria. Secondly, we would like to note, as mentioned earlier in the introduction, that the components and their elements were identified via a comprehensive literature review and not by empirical research. Direct observation or interviews with asylum caseworkers could not be conducted, as permission from the IND was repeatedly requested but not granted. The refusal was attributed to time constraints and was not accompanied by substantive justification. This aligns with broader findings that migration authorities tend to operate with limited transparency (Rosset & Achermann, 2019) and that access for empirical research is often unpredictable and opaque (Lindberg & Borrelli, 2019).

Despite these constraints, the framework provides a basis for future empirical research on the information behaviour of street-level bureaucrats, including asylum caseworkers. As noted in Section 4.1, it can guide both data collection and analysis. A valuable direction for further study is the relationship between the level of freedom to act (discretion), a typical feature of street-level bureaucracy, and information behaviour. For instance, when faced with time constraints, Dutch asylum caseworkers may tend to rely on familiar or easily accessible sources rather than those that are more difficult to locate (Inspectie Justitie en Veiligheid, 2022). A key question is whether they actually have the discretion to make such choices.

5. Summary and conclusion

Our literature review aimed to establish a framework for researching how street-level bureaucrats collect and use information. We analysed existing models that describe how information is handled. While these models offer valuable insights into information behaviour, they remain simplified representations of a complex reality. It has been deemed impossible to develop a single model that can fully and accurately explain the information behaviour of all people in a variety of situations (St Jean et al., 2021) as this behaviour is simply too complex and context-specific.

However, it is possible to develop models or frameworks that target specific situations and particular groups of information users, which is what we achieved with this literature review. We searched for models and studies that shed light on the information behaviour of decision-makers

within executive government agencies. After analysing these models and studies, we identified and grouped different elements of information behaviour thematically.

We identified three main components: 1) activities and behaviours; 2) users and their environment; and 3) information and access to it. Together, these form the structure of our framework, which can serve as the basis for an interdisciplinary study on the collection and use of information. For example, the framework can be used to define a research question or to design an observation schedule, interview guide or codebook. It could also be used to organise new elements that might emerge from such a research project. To demonstrate how our framework can be applied, we examined the role of the Dutch asylum caseworkers who have to collect and use country of origin information when taking decisions on asylum requests. When applied to these caseworkers, our three-part framework reveals that their information behaviour is not only an individual choice, but is also embedded within the organisational and legal context of their work.

Understanding how information is sought, created, selected, interpreted, and communicated helps us to better understand and map legal decision-making processes. For example, the presence of obsolete or missing information in case files can be explained by an understanding of information behaviour. It is conceivable that, under time pressure, decision-makers do not always refer to the information they consult, or that, within an information culture of 'just enough information' (Katopol, 2007), they do not search for alternative or more current sources. However, these remain mere assumptions. In order to gain a true understanding of the causes of outdated or missing information, further research into the information behaviour of street-level bureaucrats is required.

Information behaviour research complements legal sociology by demonstrating how legal decisions are influenced by the manner in which information is collected and used. It sheds light on the frequently overlooked processes through which street-level bureaucrats, such as asylum caseworkers, search for, interpret and apply information amid uncertainty and discretion. This perspective fosters interdisciplinary dialogue and improves transparency and accountability in public services. It also deepens our understanding of how external factors influence the use of information and, ultimately, the outcomes of decisions. Consequently, it enriches both theory and practice in administrative law.

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Appendix

Appendix 1, Search strategy

Search strategy, phase 1

Web of Science Core Collection, journal search on 29 April 2024	
Set	Search query
1	SO=("Accountability in Research" OR "Aslib Journal of Information Management" OR "Big Data and Society" OR "Bottom Line" OR "College and Research Libraries" OR "Digital Library Perspectives" OR "Education and Information Technologies" OR "Ethics and Information Technology" OR "European Journal of Information Systems" OR "Government Information Quarterly" OR "Health Information and Libraries Journal" OR "IEEE Transactions on Information Theory" OR "IFLA Journal" OR "Information and Learning Science" OR "Information and Organization" OR "Information Communication and Society" OR "Information Processing and Management" OR "Information Retrieval" OR "Information Systems Management" OR "Information Systems Research" OR "Information Technology and People" OR "International Journal of Geographical Information Science" OR "International Journal of Information Management" OR "International Journal of Multimedia Information Retrieval" OR "Journal of Academic Librarianship" OR "Journal of Chemical Information and Modeling" OR "Journal of Cheminformatics" OR "Journal of Decision Systems" OR "Journal of Documentation" OR "Journal of Enterprise Information Management" OR "Journal of Health Communication" OR "Journal of Information Science" OR "Journal of Information Technology" OR "Journal of Informetrics" OR "Journal of Librarianship and Information Science" OR "Journal of Library Administration" OR "Journal of the Association for Information Science and Technology" OR "Journal of the Medical Library Association : JMLA" OR "Journal of Web Librarianship" OR "Knowledge Management Research and Practice" OR "Language Resources and Evaluation" OR "Learned Publishing" OR "Library and Information Science Research" OR "Library Hi Tech" OR "Library Management" OR "Library Quarterly" OR "Online Information Review" OR "Personal and Ubiquitous Computing" OR "Profesional de la Informacion" OR "Public Library Quarterly" OR "Publications" OR "Reference Services Review" OR "Research Evaluation" OR "Scientific data" OR "Scientometrics" OR "Social Science Computer Review" OR "Telecommunications Policy" OR "VINE Journal of Information and Knowledge Management Systems" OR "World Patent Information")

2	TI=((information AND (search* OR seek* OR behavio*r* OR gathering) OR "information - behavio*r*" OR "information-seeking behavio*r" OR "information-gathering" OR "information-seeking*" OR "search behavio*r*" OR "seeking behavio*r*" OR "seeking habit*" OR "search activit*" OR ((web OR internet) AND search*)))
3	TI=(model* OR framework* OR concept*)
4	DT=("ARTICLE")
5	LA=("ENGLISH")
6	1 AND 2 AND 3 AND 4 AND 5

Table 1A. Search strategy for Web of Science, journal search.

In April 2024, the list of journals was derived from the Q1 WOS journals in the subject category: Library and Information Sciences. Of the 67 journals searched, eight had insufficient coverage in WoS. These journals are not included in this table. A further search was conducted using RUQuest and LISTA for the eight missing journals: Data Intelligence, International Journal of Information Management, Data Insights, Information Processing and Management, Journal of Open Research Software, Medical Reference Services Quarterly, New Review of Academic Librarianship, Quantitative Science Studies, Scholarly Assessment Reports.

Web of Science Core Collection, citation topics, searched on 29 April 2024	
Set	Search query
1	TI=(Information AND (search* OR seek* OR behavio*r* OR gathering) OR "information - behavio*r*" OR "information-seeking behavio*r" OR "information-gathering" OR "information-seeking*" OR "search behavio*r*" OR "seeking behavio*r*" OR "seeking habit*" OR "search activit*" OR ((web OR internet) AND search*))
2	TI=(Model* OR framework* OR concept*)
3	(TASCA=("INFORMATION SCIENCE LIBRARY SCIENCE" OR "COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS" OR "COMMUNICATION" OR "MULTIDISCIPLINARY SCIENCES" OR "SOCIAL SCIENCES INTERDISCIPLINARY")
4	TMSO=("4.48 Knowledge Engineering & Representation" OR "6.185 Communication" OR "6.73 Social Psychology")
5	TMIC=("4.48.228 Information Literacy")
6	DT=("ARTICLE")
7	LA=("ENGLISH")
8	1 AND 2 AND 3 AND 4 AND 5 AND 6 AND 7

Table 1B. Search strategy for Web of Science, citation topics.

Search strategy, phase 2

Web of Science Core Collection, searched on 14 August 2024	
Set	Search query
1	TI=((Information AND (search* OR seek* OR behavio*r* OR gathering) OR "information - behavio*r*" OR "information-seeking behavio*r" OR "information-gathering" OR "information-seeking*" OR "search behavio*r*" OR "seeking behavio*r*" OR "seeking habit*" OR "search activit*" OR ((web OR internet) AND search*)))
2	TS=(inspect* OR government* OR bureaucratic* OR officer* OR "civil serv*" OR "policy worker*" OR ((legal OR policy) AND "decision mak*") OR "state agen*")
3	TS=(model* OR framework* OR concept*)
4	1 AND 2 AND 3

Table 2A. Search strategy for Web of Science.

Additional search of legal journals with the inclusion of those which incorporate an information aspect and which are not searchable via LISTA, Web of Science or IBSS; searched on 14 August 2024		
Database or publisher's website	Journal	Search terms
Westlaw (database)	Canadian Journal of Law and Technology, Columbia Science & Technology Law Review, International Journal of Legal Information, Syracuse Journal of Science & Technology Law Reporter, UCLA Journal of Law & Technology, Yale Journal of Law & Technology	TI(information & behaviour), TI(information & behavior)
access to the archives via RUQuest (database)	Computer & Telecommunications Law Review Computerrecht Freedom of Information International Journal of Law Libraries	information behavior, information behaviour
Paris (publisher's website)	Expertise en Recht, Privacy & Informatie, RMThemis, REALaw	informatiegedrag, information behavior, information behaviour
Boom (publisher's website)	Law and Method, Recht der werkelijkheid	information behavior, information behaviour, informatiegedrag

Table 2B. Additional search of legal journals.

Appendix 2, Eligibility criteria and critical appraisal

Selection, phase 1

Eligibility criteria	Inclusion	Exclusion
Publication type	book chapters, contributions in encyclopaedias, scientific articles, conference proceedings	reports, conference presentations, blogs, magazines and other grey literature
Type of study	overview/ review of models, theoretical or empirical studies	no overview / review of models, no theoretical or empirical contribution to existing knowledge
Accessibility	only if full text is legally available	no full text available
Content:		
<i>information behaviour</i>	study on how people search for and use information	design and web applications, data visualisation, teaching, use of information skills in learning processes etc.
<i>models</i>	models that describe (individual) information behaviour	if only partial aspects of information behaviour such as cognitive factors, certain specific search strategies, or systems etc., are discussed

<i>overview of models</i>	at least two models are discussed in detail; and/or a generic or meta-model is presented	evaluation is limited to a single model; a reference to more than one model is made, but without a detailed explanation
<i>context</i>	work setting, multiple context	everyday life, school, research and libraries, medical professionals
<i>user</i>	the users are central, preferably employees, decision makers, caseworkers or similar professionals	the user is not central, other user groups such as patients, children, students etc.

Table 3. Overview of selection criteria for phase 1.

Critical appraisal

Our ranking system is based on the AMSTAR checklist: B.J. Shea, B.C. Reeves, G. Wells, M. Thuku, C. Hamel, J. Moran, D. Moher, P. Tugwell, V. Welch, E. Kristjansson, D.A. Henry, 'AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both.' BMJ. 2017 Sep 21;358:j4008, https://amstar.ca/Amstar_Checklist.php. We shortened this checklist to the following seven questions:

Checklist for critical appraisal
Does the publication contain a review of several different models?
Is the selection of models adequately explained?
Are the models described in detail?
Is there an explanation of the similarities and differences between the models, and a discussion of them?
Does it provide any new insights or perspectives on IG models?
Does it contain a new meta-model?
Does it help to answer the research question?

Table 2. Questions for the critical appraisal.

Selection, phase 2

Eligibility criteria	Inclusion	Exclusion
Publication type	scientific articles, conference proceedings	contributions in encyclopaedias, reports, conference presentations, blogs, magazines and other grey literature, dissertations or books are excluded if the relevant part was also published as an article
Type of study	empirical and theoretical studies, literature reviews	repetitive or outdated
Accessibility	only if full text is legally available	no full text available
Content:		
<i>information behaviour</i>	study on how people search for and use information, also partial aspects of information behaviour and especially new developments such as the use of AI	design and web applications, data visualisation, use of information skills in learning processes, information management etc.
<i>models</i>	if a model is used or a new model is presented or something is added to existing models	no models, no theoretical or empirical contribution to existing results

context	workplace administrative/executive government, government agencies that decide also handle citizen applications	in non-government workplaces, judiciary; specific context: police, health care
user	caseworker and or decision maker who have to decide on requests based on information they searched for	policy officers, managers, police officers, people working in the judiciary etc.

Table 3. Overview of selection criteria for phase 2.

Appendix 3, List of selected publications.

Abubakar, F., Alegbeleye, G., & Musa, H. (2022). Information Seeking Behaviour and Work Performance of Local Government Administrators in Niger State. *Current Trends in Information Communication Technology Research*, 2(1), 80–94. <https://doi.org/10.61867/pcub.v1i2b.024>

Agarwal, N. K. (2022). Integrating models and integrated models: Towards a unified model of information seeking behaviour. *Information Research*, 27(1). <https://doi.org/doi:10.47989/irpaper922>

Ault, J. T., & Gleason, J. M. (2003). US Government decision makers' expectations and patterns of use of emerging and existing information technologies. *Government Information Quarterly*, 20(1), 63–76. [https://doi.org/10.1016/s0740-624x\(02\)00135-1](https://doi.org/10.1016/s0740-624x(02)00135-1)

Aydin, A. M. (2017). Cognition to collaboration: User-centric approach and information behaviour theories/models. *Informing Science*, 20, 1–17. <https://doi.org/doi:10.28945/3615>

Bukhari, S., Hamid, S., & Ravana, S. D. (2016). Merging the models of information seeking behaviour to generate the generic phases. 125–130. <https://doi.org/10.1109/INFRKM.2016.7806348>

Byström, K., & Hansen, P. (2005). Conceptual framework for tasks in information studies. *Journal of the American Society for Information Science and Technology*, 56(10), 1050–1061. <https://doi.org/10.1002/asi.20197>

Byström, K., & Järvelin, K. (1995). Task complexity affects information seeking and use. *Information Processing & Management*, 31(2), 191–213. [https://doi.org/10.1016/0306-4573\(95\)80035-R](https://doi.org/10.1016/0306-4573(95)80035-R)

Cantarelli, P., Belle, N., & Hall, J. L. (2023). Information use in public administration and policy decision-making: A research synthesis. *Public Administration Review*, 83(6), 1667–1686. <https://doi.org/10.1111/puar.13735>

Case, D. O., & Given, L. M. (2016). Models of Information Behavior. In D. O. Case & L. M. Given (Eds.), *Looking for information, A survey of research on information seeking, needs, and behavior* (pp. 141–175). Emerald.

Choo, C. W., Bergeron, P., Detlor, B., & Heaton, L. (2008). Information culture and information use: An exploratory study of three organizations. *Journal of the American Society for Information Science and Technology*, 59(5), 792–804. <https://doi.org/10.1002/asi.20797>

Fidel, R. (2012). Theoretical Constructs and Models in Information-Seeking Behavior. In R. Fidel (Ed.), *Human Information Interaction: An Ecological Approach to Information Behavior* (pp. 49–81). The MIT Press.

Godbold, N. (2006). Beyond information seeking: Towards a general model of information behaviour. *Information Research*, 11(4). <http://InformationR.net/ir/11-4/paper269.html>

Gorichanaz, T. (2019). Information creation and models of information behavior: Grounding synthesis and further research. *Journal of Librarianship and Information Science*, 51(4), 998–1006. <https://doi.org/doi:10.1177/0961000618769968>

- Greifeneder, E., & Schlebbe, K. (2022). How things fit together: A general model of the information behaviour field. In *Proceedings of ISIC: the information behaviour conference*, Berlin, Germany, 26-29 September, 2022. *Information Research*, 27 (Special issue). <https://doi.org/doi:10.47989/irisic2228>
- Irvine-Smith, S. (2019). Who you gonna call? Seeking information and expertise for decision making in local government. *Proceedings of the Association for Information Science and Technology*, 56(1), 117-126. <https://doi.org/10.1002/pa2.61>
- Joseph, P., Debowski, S., & Goldschmidt, P. (2013). Models of information search: A comparative analysis. *Information Research*, 18(1). <http://InformationR.net/ir/18-1/paper562.html>
- Katopol, P. F. (2007). 'Just Enough' Information: Information Behaviour, Organizational Culture, and Decision Making in Municipal Government. *Canadian Journal of Information and Library Science-Revue Canadienne Des Sciences De L Information Et De Bibliotheconomie*, 31(3-4), 233-247.
- Kundu, D. K. (2017). Models of information seeking behaviour: A comparative study. *International Journal of Library and Information Studies*, 7(4), 393-405. <https://doi.org/10.2139/ssrn.4289303>
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- Levin, M. A. (1991). The Information-Seeking Behavior of Local Government Officials. *The American Review of Public Administration*, 21(4), 271-286. <https://doi.org/10.1177/027507409102100401>
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- Meyer, H. W. J. (2016). Untangling the building blocks: A generic model to explain information behaviour to novice researchers. In *Proceedings of ISIC, the Information Behaviour Conference*, Zadar, Croatia, 20-23 September, 2016: Part 1. *Information Research*, 21(4). <http://InformationR.net/ir/21-4/isisic/isisic1602.html>
- Ndumbaro, F. (2023). Models of collaborative information behaviour (CIB): A meta-synthesis. *Information Development*, 41(1). <https://doi.org/doi:10.1177/02666669231158334>
- Niedźwiedzka, B. (2003). A proposed general model of information behaviour. *Information Research*, 9(1). <http://InformationR.net/ir/9-1/paper164.html>
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- Robson, A., & Robinson, L. (2013). Building on models of information behaviour: Linking information seeking and communication. *Journal of Documentation*, 69(2), 169-193. <https://doi.org/10.1108/00220411311300039>
- Shenton, A. K., & Hay-Gibson, N. V. (2012). Information behaviour meta-models. *Library Review*, 61(2), 92-109. <https://doi.org/10.1108/00242531211220735>
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- Widén, G., Steinerová, J., & Voisey, P. (2014). Conceptual modelling of workplace information practices: A literature review. In *Proceedings of ISIC, the Information Behaviour Conference*, Leeds, 2-5 September, 2014: Part 1. <http://InformationR.net/ir/19-4/isisic/isisic08.html>

Wilson, T. D. (1999). Models in information behaviour research. *Journal of Documentation*, 55(3), 249–270. <https://doi.org/doi:10.1108/eum0000000007145>

Yang, T. M., & Wu, Y. J. (2021). Looking for datasets to open: An exploration of government officials' information behaviors in open data policy implementation. *Government Information Quarterly*, 38(2). <https://doi.org/10.1016/j.giq.2021.101574>

Zhong, H., Han, Z. B., & Hansen, P. (2023). A systematic review of information practices research. *Journal of Documentation*, 79(1), 245–267. <https://doi.org/doi:10.1108/jd-02-2022-0044>

Appendix 4, List of analysed meta-models

"Unified model of information seeking behaviour" by Agarwal, N. K. (2022). Integrating models and integrated models: Towards a unified model of information seeking behaviour. *Information Research-an International Electronic Journal*, 27(1). <https://doi.org/doi:10.47989/irpaper922>

"Generic phases of ISB models after rearrangement" by Bukhari, S., Hamid, S., & Ravana, S. D. (2016). *Merging the models of information seeking behaviour to generate the generic phases*. 125–130. <https://doi.org/10.1109/INFRKM.2016.7806348>

"Navigating Gap" by Godbold, N. (2006). Beyond information seeking: Towards a general model of information behaviour. *Information Research*, 11(4). <http://InformationR.net/ir/11-4/paper269.html>

"Model of the information seeking of professionals" by G Leckie, G. J., Pettigrew, K. E., & Sylvain, C. (1996). Modeling the information seeking of professionals: A general model derived from research on engineers, health care professionals, and lawyers. *Library Quarterly*, 66(2), 161–193.

"Building blocks of information behaviour" by Meyer, H. W. J. (2016). Untangling the building blocks: A generic model to explain information behaviour to novice researchers. In *Proceedings of ISIC, the Information Behaviour Conference, Zadar, Croatia, 20-23 September, 2016: Part 1*. *Information Research*, 21(4). <http://InformationR.net/ir/21-4/isic/isic1602.html>

"New model of information behaviour" by Niedźwiedzka, B. (2003). A proposed general model of information behaviour. *Information Research*, 9(1). <http://InformationR.net/ir/9-1/paper164.html>

"Information-seeking and communication model" by Robson, A., & Robinson, L. (2013). Building on models of information behaviour: Linking information seeking and communication. *Journal of Documentation*, 69(2), 169–193. <https://doi.org/10.1108/00220411311300039>

"Framework of Workplace Information Practices" by Widén, G., Steinerová, J., & Voisey, P. (2014). *Conceptual modelling of workplace information practices: A literature review*. In *Proceedings of ISIC, the Information Behaviour Conference, Leeds, 2-5 September, 2014: Part 1*. <http://InformationR.net/ir/19-4/isic/isic08.html>

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