

Grey Matters: Strategic Approaches to Managing Non-Traditional Research Outputs

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Abstract. The German National Library of Science and Technology (TIB) maintains extensive collections of grey literature – technical reports, conference proceedings, dissertations, and other non-commercially published research outputs – that require specialised approaches to acquisition, preservation, and access. This paper examines TIB's strategic approach to managing these non-traditional research outputs (NTROs), using the German Research Reports collection¹ (Deutsche Forschungsberichte, DtF) as a case study. We discuss the implementation of TIB's e-preferred strategy, persistent challenges around accessibility and discoverability, and ongoing efforts – including collaboration with OpenAlex² and the AI search platform ORKG Ask³ – to improve the visibility of grey literature on national and international discovery platforms.

Keywords: Grey literature, Non-Traditional Research Outputs, NTRO, Research Reports, Digital Repositories, Discoverability, Metadata Quality, E-Preferred Strategy, TIB, Research Libraries, Open Access, AI

1. Introduction

Grey literature has long been an indispensable part of scientific communication. Technical reports, government-funded research reports, dissertations, conference proceedings, policy papers, and other non-commercially published outputs frequently contain intermediate results, methodological detail, negative findings, or project outcomes that never appear in peer-reviewed journals but nonetheless contribute substantially to research transparency and scientific knowledge.

Despite this relevance, grey literature remains far less visible than formally published literature. Unlike journal articles, which are indexed by established bibliographic databases and supported by mature publishing infrastructures, grey literature is often disseminated through institutional websites, project pages, or specialised repositories with varying degrees of technical standardisation, making it difficult for researchers to identify, access, evaluate, and cite these materials. Bibliographic databases such as OpenAlex and Dimensions⁴ treat grey literature inconsistently, classifying comparable items as "reports", "articles", or "conference papers" without a shared taxonomy. This heterogeneity impairs systematic discovery and citation analysis, rendering significant research outputs effectively invisible.

The shift toward digital scholarly communication has intensified both the opportunities and the challenges of managing grey literature, creating an accessibility paradox: While digital dissemination improves remote access and speeds up publication, it also raises new questions

¹ <https://www.tib.eu/en/search-discover/focus-of-collections/german-research-reports>

² <https://openalex.org>

³ <https://ask.orkg.org>

⁴ <https://www.dimensions.ai/>

of long-term preservation, persistent identification, metadata standardisation, repository interoperability, and legal accessibility – the last complicated by the fact that many freely available documents remain legally closed due to missing licensing information.

Research libraries have consequently taken on a broader role: not only preserving grey literature, but actively ensuring its long-term discoverability and accessibility through repository development, metadata curation, persistent identifier management, and interoperability with national and international discovery infrastructures.

TIB – Leibniz Information Centre for Science and Technology, Germany's National Library of Science and Technology, illustrates this transformation. TIB's institution-wide e-preferred strategy has fundamentally changed how both traditional and non-traditional research outputs (NTRs) are acquired, preserved, and disseminated: electronic publication is now the preferred format wherever feasible, requiring substantial adaptation of workflows, infrastructure, legal frameworks, and user services.

This paper presents TIB's strategic approach to managing NTRs in this context. Among TIB's holdings of grey literature, the German Research Reports (Deutsche Forschungsberichte, DtF), systematically collected since 1969, document publicly funded research across numerous disciplines. Using this unique collection as a case study, we examine the challenges of accessibility and discoverability, describe the implementation of digital-first acquisition workflows and professionally curated metadata management, and discuss how high-quality metadata, authority-controlled indexing, persistent identifiers, and repository interoperability improve the visibility of grey literature on national and international discovery platforms. We conclude by outlining future developments, including semantic discovery services, AI-supported retrieval, and closer collaboration with international indexing initiatives.

2. Overview of TIB and TIB's collection of grey literature

TIB is internationally recognised as one of the world's largest specialist libraries in science, engineering, architecture, chemistry, computer science, mathematics, and physics. Beyond serving as the academic library of Leibniz University Hannover, TIB operates a nationwide information infrastructure, providing researchers, institutions, industry, and the public with access to scientific information across the natural sciences and technology. Its mission includes long-term preservation, curation, and the development of innovative services for scholarly communication.

TIB's collection comprises approximately 10.3 million media units, including around 6.2 million books and nearly 68.000 journal subscriptions. Roughly 62 % of the overall collection can be classified as grey literature, a proportion that distinguishes TIB from libraries whose holdings centre primarily on commercially published literature. TIB has long regarded grey literature as essential to scientific documentation, given its unique contribution to preserving results that would otherwise remain unavailable through conventional publishing channels.

The collection spans technical reports, government-funded research reports, conference proceedings, dissertations, scientific videos, and other non-commercially disseminated scholarly work, often containing specialised technical information, preliminary findings, negative results, or methodological detail that complements the formal literature and documents publicly funded research activity.

The importance of grey literature has grown considerably in recent decades, driven by expanding research collaboration, publicly funded programmes, and digital dissemination. At the same time, its decentralised nature makes it particularly vulnerable to loss: many outputs are published on institutional or project websites that may disappear once funding ends, or are

disseminated without persistent identifiers, standardised metadata, or long-term preservation strategies. Research libraries have consequently become key actors in keeping these resources permanently accessible and discoverable.

3. German research reports (DtF) at TIB: introduction

Within TIB's collection of grey literature, German Research Reports (DtF) occupy a special position, as they document the outcomes of publicly funded research projects. In its role as the deposit library for various federal ministries, most notably the Federal Ministry of Education and Research (BMBF) as well as other research-funding institutions, the TIB performs an essential function for scientific documentation in Germany. [1]

These reports represent a specific form of non-traditional research output whose scientific value is often underestimated, yet in many fields, it exceeds that of a classic publication in a peer-reviewed journal. While journals, due to space constraints and editorial guidelines, primarily publish final results and streamlined narratives, research reports provide indispensable depth. They serve as comprehensive documentation of the entire research process: from the detailed derivation of hypotheses and full descriptions of experimental setups to extensive data analyses that would find no place in a concise article.

Of particular importance is the documentation of negative results or failed approaches. Traditional publication culture is often characterised by a "publication bias", where only positive results are shared. Research reports, however, preserve these "silent findings". By demonstrating which paths did not lead to the desired goal, they prevent other research teams from repeating the same mistakes, thereby contributing significantly to the efficiency and integrity of global research. Consequently, these reports are not merely administrative documents, but essential knowledge repositories for scientific follow-up.

4. TIB's e-preferred-strategy

The ongoing digital transformation of scholarly communication has changed how information is created, disseminated, and accessed – a shift especially visible for NTRs, which are now predominantly produced and distributed electronically. In response, TIB has adopted an institution-wide e-preferred strategy that establishes electronic resources as the preferred acquisition format wherever feasible. Rather than a digitisation initiative limited to specific collections, this is a comprehensive organisational approach spanning both commercially published literature and grey literature, aimed at prioritising digital acquisition while maintaining the long-term preservation responsibilities of a national library.

The strategy is motivated by several considerations. Digital resources enable location-independent access – critical for TIB as a nationwide infrastructure serving researchers beyond its local user base – and facilitate rapid dissemination and integration into modern discovery systems. They also support long-term sustainability: physical collections require considerable storage and handling, whereas digital resources free up space, streamline acquisition by reducing print/electronic duplication, and support the ongoing redesign of library services and reading-room concepts in line with changing user expectations.

Implementing an e-preferred policy, however, involves far more than replacing print with digital equivalents. It requires robust authentication mechanisms for reliable remote access; discovery systems capable of indexing digital resources to maximise visibility; repository infrastructures and content-selection policies that meet legal long-term archiving obligations; and acquisition workflows that address copyright, licensing, and contractual conditions distinct from print acquisition. Libraries must also reconsider the role of physical space as digital collections expand.

These challenges are especially pronounced for grey literature. Because NTROs originate from heterogeneous institutional environments with varying infrastructures, standards, and legal frameworks, digital versions are often available online but lack persistent identifiers, standardised metadata, or explicit reuse licences. An e-preferred strategy for grey literature therefore cannot rely on digital acquisition alone; it must also ensure sustainable preservation, professional metadata curation, persistent identification, and long-term discoverability.

For TIB, the e-preferred strategy thus marks a broader shift in role: from primarily a collecting institution to a provider of digital research infrastructure that actively supports the publication, curation, preservation, and dissemination of research outputs, aligned with the principles of Open Science and FAIR. This framework is what allows individual grey literature collections, such as the German Research Reports, to be managed more efficiently and made substantially more visible internationally, as illustrated by the collection's own transition from print-based acquisition to fully digital submission, repository-based publication, and curated metadata management.

5. TIB's e-preferred-strategy: Implementation for DtF

The technical implementation of the provision of German Research Reports (DtF) has evolved steadily over the past few decades [2]. While digital submissions in the 1990s were still handled via physical media such as floppy disks, CDs, or USB sticks, the requirement to submit reports in printed form was completely abolished in 2022. This shift is clearly reflected in the submission statistics, which show a decisive transition from physical to almost exclusively digital deposits (see Figure 1). This established a fully digital workflow, accelerating both the archiving and the provision of these documents.

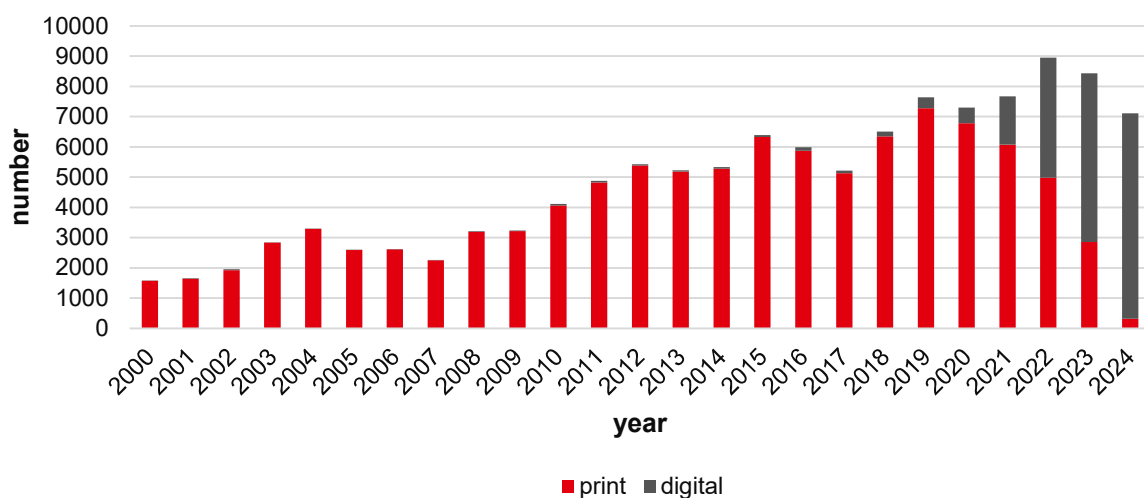


Figure 1. Development of submission formats for German research reports (DtF), showing the transition from print to digital deposits.

The primary tool for this process is the RENATE⁵ repository (Repository for Natural Sciences and Technology). As an Open Access platform specifically oriented toward the natural sciences and technology, RENATE enables the permanent, freely accessible, and citable provision of research reports.

A key feature of this system is the hybrid submission model. Through a web interface, authors can upload their reports directly, which lowers the barriers to submission. This process

⁵ <https://oa.tib.eu/renate/home>

reduces internal processing times within the library and ensures that research results are made available to the public more rapidly.

Despite these efficiency gains, a new challenge arises: the quality of the provided metadata. In practice, it is frequently observed that the significance of precise metadata is not sufficiently recognised by those submitting the reports. While the PDF document itself is usually complete, the accompanying descriptive fields – such as author names, institutions, or keywords – are often filled out only minimally or inconsistently.

This "metadata gap" has a direct impact on discoverability. Without standardised information, a document remains largely invisible within the repository, as search engines and databases rely on precise terms. Inconsistencies, such as varying spellings of the same institution or imprecise titles, result in relevant research findings failing to appear in targeted searches.

To address this issue, professional library curation is indispensable. Rather than relying solely on automated harvesting or user-provided data, TIB employs autoptic cataloguing performed by subject specialists.

It is only through the combination of technical provision in RENATE and professional metadata-based indexing that the FAIR principles (Findable, Accessible, Interoperable, Reusable) are truly fulfilled. In this context, the library acts as a necessary quality filter, ensuring that valuable knowledge is not merely archived, but remains genuinely discoverable and citable.

6. DtF metadata: High discoverability through professional curation

The hybrid submission model for DtF, as outlined, combines low submission barriers and the possibility of gaining first-hand metadata from the project context with professional bibliographic expertise, ensuring the four-eye principle along the way.

The upload to the RENATE-collection of research reports sets the correct resource type ("report") in the metadata. The licence and access rights for the report itself are specified by the uploader; where applicable, a controlled list of CC-licences in the GUI ensures a consistent, machine-readable licence entry, while uploaders may also specify other licence information in a free text field. The metadata deposited with TIB, however, are in the public domain by publication agreement, in accordance to A.2 of the FAIR principles⁶: metadata are accessible, even if the resource itself is not or no longer available.

For compliance to the FAIR principles, PIDs and connection metadata play a central role. Connection metadata are metadata which reflect the relationships between the different entities relevant to a resource, e.g. the connection between a report, its author, and the institution the author is affiliated to. A decisive step in this context, provided as a part of the metadata curation and autoptic cataloguing, is the linking to the Integrated Authority File (Gemeinsame Normdatei, GND). By connecting authors and institutions to these authority records, unique identification is ensured, regardless of spelling variations. From this starting point, the wider context of a given resource emerges via the net of globally unique and persistent identifiers and their respective metadata. E.g., from the record of an author in the Integrated Authority File, their (self-authorised) ORCID-record might be looked up to securely identify their other scientific work; through their affiliation, the wider area of research that their institution engages in becomes visible.

⁶ <https://www.go-fair.org/fair-principles/>

As part of the curation process, subject indexing is performed using GND subject headings wherever possible, enabling unique identification and precise, targeted searches also on the content level. And of course, like all resources in RENATE, research reports receive a DOI (Digital Object Identifier) as a persistent identifier for the resource itself.

Authors of reports, on the other hand, may be expected to have an overview of related resources, such as datasets, articles, presentations, etc. created in the context of the project, which might not or only on close reading be evident from the uploaded report. To capture this information, uploaders can link related resources via DOIs or URLs in the metadata they provide, supporting both the interconnected discoverability and, through contextualisation and transparency, the reusability of project results.

While the metadata in RENATE are first captured in an adapted DublinCore metadata schema, the curation according to RDA also enables their subsequent transformation to Pica3 and the automated transferral of the metadata records to the union catalogue K10+. The integration of the curated data into the union catalogue elevates the visibility of research reports to a supra-regional level and enables worldwide discoverability through WorldCat.

Consistent, high-quality metadata lay the basis for all following, more technical measures to ensure discoverability. For the DtF, the hybrid submission and metadata curation model solves some of the accessibility issues pertinent to grey literature. Other challenges, stemming from conceptual, technical, and cultural biases in the wider service landscape for scientific resources, still need to be addressed continuously and collaboratively.

7. Accessibility Challenges of Grey Literature

7.1. Access Spectrum for Grey Literature

At the heart of the accessibility problem of grey literature lies a fundamental misunderstanding of what "open" means in the context of non-commercial publication. Many producers of grey literature – including government agencies, universities, think tanks, and international organisations – publish with the sincere intention of widespread dissemination. They operate under the impression that posting a PDF to an institutional website constitutes open access in any meaningful sense. However, the legal and technical infrastructure surrounding such publications is often restrictive, contradictory, and hostile to systematic reuse.

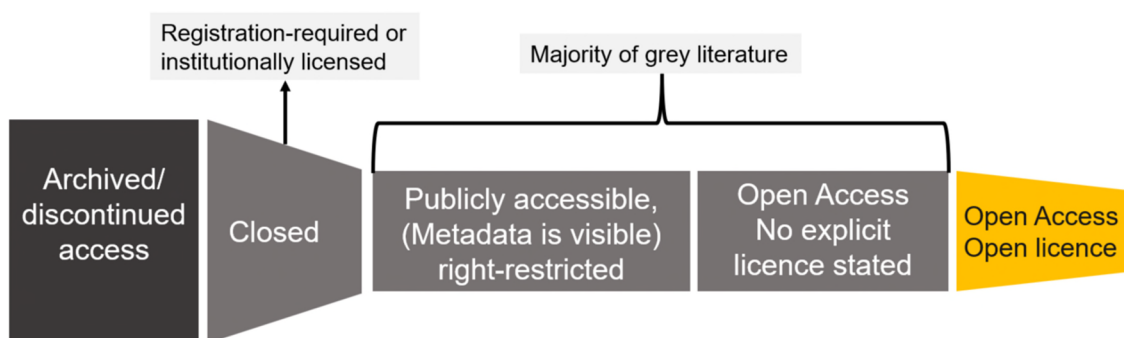


Figure 2. Access spectrum for grey literature

Licensing is perhaps the most underappreciated dimension of this problem. The vast majority of grey literature is released without an explicit licence, meaning that all rights are technically reserved by default under copyright law in most jurisdictions. A white paper published by a government ministry, a technical report from a research institute, or a conference paper posted to an event website without an attached Creative Commons or equivalent licence is, legally speaking, a fully copyrighted work. Researchers, librarians, and

repository managers who download, repost, mine, or aggregate such material may be operating in a legally ambiguous or clearly infringing position, even when the original producer's evident intent was wide dissemination.

The current status regarding access to grey literature is illustrated in Figure 2. A significant proportion of grey literature occupies a central position on the aforementioned spectrum, thereby mirroring the scenario outlined above. Additionally, content is available within the grey literature domain for which explicit licensing exists. Currently, specialised providers for such content are limited, with Policy Commons by Coherent Digital⁷ being a prominent example. However, evaluations through test access indicate that their content focus is primarily concentrated in the policy and social science domains, leaving significant coverage gaps in engineering and the natural sciences – the core focus areas of the TIB. Furthermore, a substantial portion of the material indexed in Policy Commons consists of public grey literature, such as think tank reports, NGO briefs, and white papers, which the original organisations intended for free online dissemination. Despite this, the curated database framework places these materials behind a paid subscription model, creating a situation where research often produced for public benefit is only available through a gated intermediary.

Frequently, access to grey literature is discontinued. For a variety of reasons, there are platforms with abundant grey literature that abruptly become inaccessible. This is illustrated in Figure 1 on the far left. In certain instances, the content is migrated to an alternate platform, which can result in challenges for researchers and their research processes. The fate of OpenGrey⁸ is the most instructive example of this fragility. OpenGrey was the principal European database for grey literature discoverability, providing open access to approximately 700.000 bibliographic references covering science, technology, biomedical science, economics, social science, and the humanities, produced by institutions across Europe. It began as SIGLE, became OpenSIGLE, then OpenGrey, and it was later discontinued as a live service and preserved as a closed archive in DANS EASY / the DANS data archive.⁹ A later description from INIST-CNRS likewise states that OpenGrey was discontinued in 2020 and archived in DANS EASY to guarantee continued open access to the resource as a preserved database. In practice, that means OpenGrey is no longer a live, actively maintained searchable database in the same way it once was.¹⁰ Discontinuing access to grey literature can hurt evidence synthesis because grey literature often contains studies and reports that are missing from commercial indexing systems. That can make literature reviews less comprehensive and can increase publication bias if only published journal articles are searched [3]. The optimal scenario would involve open access accompanied by an explicit open licence. Nevertheless, the extant grey literature in this domain remains limited.

7.2. Technical Barriers

Furthermore, technical barriers make grey literature harder to find, cite, verify, and preserve than formally published literature:

- Link rot: A web link stops working because the page, file, or server location changes or disappears. This causes many citations to vanish with five to ten years. In scholarly communication, this breaks access to the exact grey literature item a researcher cited and weakens reproducibility and verification. [4]
- Missing persistent identifiers: Many grey literature items do not receive a DOI, Handle, or other persistent identifier, so they are cited only with unstable URLs or local file

⁷ <https://policycommons.net/>

⁸ <https://opengrey.eu>

⁹ <https://www.greynet.org/opengreyrepository.html>

¹⁰ <https://lalist.inist.fr/data-from-opengrey-system-for-information-on-grey-literature-in-europe/>

paths. Without a persistent identifier, then item is harder to resolve, cite consistently, and track across migrations or repository changes.

- **Poor metadata:** Grey literature often has incomplete or inconsistent metadata, such as missing authors, dates, abstracts, keywords, language tags, or document type fields. That makes discovery harder in library catalogues, discovery layers, and harvesters, because search systems rely on structured metadata to rank and retrieve records. The practical consequence is that even when the file exists, users may not be able to identify it as relevant, or may not even know it exists.
- **Weak indexing:** Since grey literature is outside major commercial indexing systems and may not be harvested consistently by aggregator. Many collections rely on local bibliographies, institutional repositories, or specialist portals, which limits visibility compared with journal literature.
- **No repository deposit:** A large share of grey literature is never deposited in a trusted repository with preservation workflows. Instead, it may sit on a project website, a department page, or a staff member's personal space, which creates dependency on local IT decisions and staff turnover.¹¹ Since repository usually offer stable infrastructure, backup, migration planning, and metadata exposure, without deposit, grey literature remains vulnerable to disappearance when projects end or websites are redesigned.¹² Without dedicated digital preservation, format obsolescence threatens the readability of older files.
- **No integrity checks:** If files are not deposited in a managed repository, they may also lack integrity controls such as checksums, fixity checking, version control, or audit trails. That means users may not know whether the file is complete, unchanged, or corrupted.¹³ Integrity checks help prove that a file retrieved today is the same bitstream that was originally preserved, which is essential for long-term scholarly reliability.

These barriers compound each other. Weak metadata makes indexing poor; poor indexing reduce discovery; no PID and link rot weaken citation durability; missing repository deposit and fixity checks undermine preservation and trust.

8. Discoverability: Database Visibility and Metadata Gaps

8.1. The fragmented database landscape

Researchers currently face a highly decentralised database ecosystem characterised by institutional dependency and uneven coverage across disciplines and geographies. Table 1 below compares selected databases with multidisciplinary coverage and free access. This emphasises several systemic reasons for this fragmented representation.

The discontinuation of OpenGrey in December 2024 – formerly the principal European index for over 40 years – has left a critical void with no comprehensive successor, rendering approximately 700.000 records effectively invisible to standard search workflows. While major aggregators such as BASE¹⁴ and CORE¹⁵ utilise OAI-PMH harvesting to index millions of open-access documents, they structurally exclude a vast majority of output from government

¹¹ <https://intarch.ac.uk/journal/issue17/5/gf2-1-1.html>

¹² http://greyguide.isti.cnr.it/attachments/category/46/GL7_Tripathi_et_al.pdf

¹³ <https://phaidra.univie.ac.at/detail/o:931068>

¹⁴ <https://www.base-search.net>

¹⁵ <https://core.ac.uk>

agencies, think tanks, and NGOs that lack conformant repository infrastructure. Recent analysis by Culbert et al. (2025) [5] notes that while OpenAlex is a promising open-source alternative, its non-core content – including grey literature – often exhibits "significantly lower data quality" and "volatility". The platform's utility is currently hampered by its lack of "non-source references" and systemic metadata errors, such as "generous disambiguation" that erroneously links single ORCIDs to over 10.000 publications.

There is, however, emerging potential for improvement through strategic partnerships between OpenAlex and information institutions like TIB, which aim to introduce standardised document type classifications and enhance metadata quality. Currently, the lack of a single comprehensive platform across disciplines and geographies forces systematic reviewers to resort to manual website searches and "hand-searching" of reference lists – a resource-intensive, unstandardised, and poorly reproducible process.

Table 1. Selected databases with multidisciplinary coverage and free access.

Platform	Coverage	Typical grey literature types	Limitations
OpenGrey	~700.000 bibliographic references across Europe	Technical reports, research reports, dissertations, ...	- Discontinued as of Dec 2024 - Records are now effectively invisible
BASE	Over 489 million documents from more than 12.000 content providers	Conference objects; course material; lectures; manuscripts; thesis; non-textual material, ...	- Uses OAI-PMH harvesting - Excludes organisations lacking technical repository infrastructure
CORE	Over 440 million searchable scholarly resources	Primarily journals and preprints; some thesis; conference papers	- Orientation is toward formal literature - Misses technical reports and policy briefs not in conformant repositories (OAI-PMH-compatible)
OpenAlex	Over 480 million scholarly works	Preprints; reports; report-components; grants; datasets; software; libguides; standards	Documented as deficient and unreliable for grey literature reference linkage

8.2. Data type taxonomy discrepancy

A fundamental barrier to the discoverability of grey literature is the significant discrepancy between the document type taxonomies used by different databases. A direct comparison between BASE and OpenAlex illustrates two distinct and often incompatible classification philosophies, see Figure 3.

BASE utilises a hierarchical repository taxonomy consisting of approximately 20 document types. This system is structured into a two-level hierarchy (e.g., "Text" and its subsequent subtypes) and offers broad coverage across various media formats, including non-textual material such as images, audio, and maps. It is particularly detailed regarding academic milestones, splitting theses into three distinct degree levels. However, its primary weakness lies in its relatively sparse coverage of journal-derived document types.

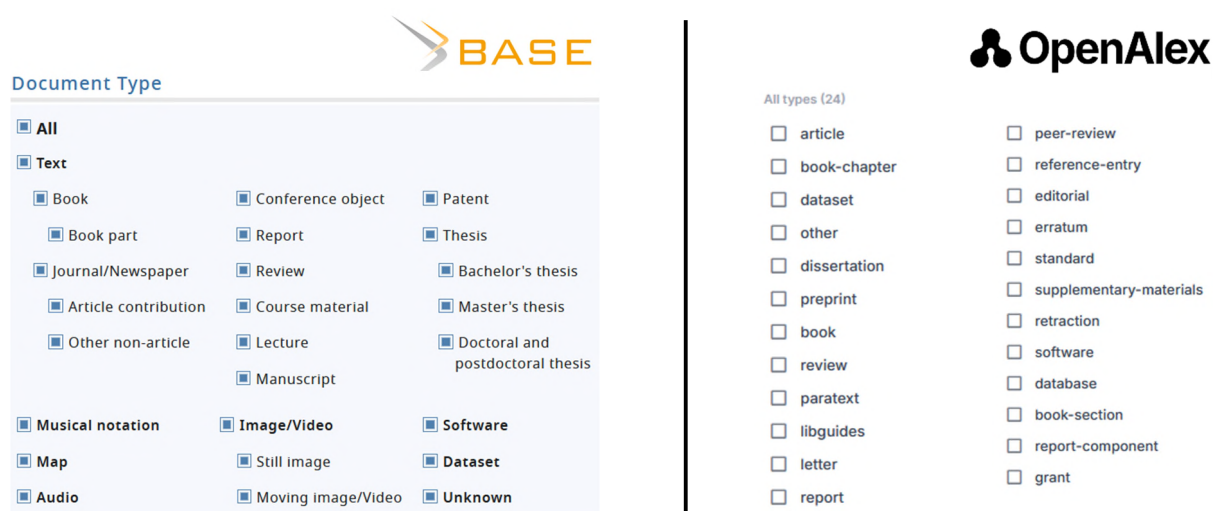


Figure 3. Data type taxonomy comparison between BASE (left) and OpenAlex (right) (screenshot from both databases on 6.6. 2026)

In contrast, OpenAlex employs a flat, journal-centric taxonomy with 24 types and no internal hierarchy. While this model is more granular for formal publishing outputs, indexing specific types such as errata, peer reviews, and paratexts, it also captures key grey literature categories such as grants, standards, preprints, and libguides. Its comparative disadvantage is a weaker representation of the non-textual formats that BASE handles more effectively.

The practical impact of these differing focuses is a stark lack of interoperability: only five document types – Report, Thesis/Dissertation, Dataset, Software, and Review – appear in both taxonomies. Because neither system is exhaustive for grey literature, this misalignment can lead to incorrect search results or the total omission of relevant documents when a researcher expects a specific type. Furthermore, because the same work can be simultaneously classified as a journal article, a report, or a preprint depending on the platform searched, the precision and recall of systematic reviews are severely compromised, making manual cross-checking a necessity.

9. Outlook

While the current landscape is defined by structural fragmentation and significant metadata volatility, these systemic challenges highlight the urgent need for collaborative, AI-driven, and policy-oriented strategies:

- **Strategic OpenAlex Partnership:** As an open source alternative to proprietary databases, OpenAlex represents a pivotal shift toward reproducible bibliometrics. However, given the current data quality issues identified in recent studies (see above), such as inconsistent reference matching and sometimes erroneous author disambiguation, strategic partnerships with information institutions like TIB are essential. These collaborations aim to move beyond the focus on journal articles by introducing standardised document type classifications and high-quality metadata, effectively addressing the lower data quality often found in non-journal content.
- **ORKG Ask & AI-Powered Discovery:** The future of finding "less visible" resources lies in moving away from "intellectually shallow" keyword searches toward AI-driven discovery tools. Tools like ORKG Ask utilise natural-language processing to query grey literature collections, overcoming the limitations of traditional databases where relevant reports can be buried dozens of pages deep in search results. By leveraging machine learning that is specifically trained on the diverse layouts of technical and policy

documents, rather than just peer-reviewed journals, AI can play a crucial role in improving the discoverability of NTROs.

- **Extending E-Preferred and Open Licensing:** To resolve the accessibility paradox, institutional policies must move beyond simply posting PDFs online. An e-preferred strategy must be coupled with mandatory licencing and access information, permitting Open Access licencing (e.g., CC BY) wherever possible. This ensures that grey literature is not only digitally available but also legally re-usable for text and data mining and systematic archiving. This shift is critical for preventing "link rot" and ensuring that publicly funded research is not functionally lost to the scientific community due to default copyright restrictions or unstable URLs.
- **Stakeholder Collaboration:** Sustainable discovery requires a coordinated effort between research producers, libraries, and database aggregators. Following the model of the German Research Reports (DtF), future systems should integrate professional librarian curation with automated workflows. By utilising global standards such as Persistent Identifiers (PIDs) and authority-controlled metadata (like GND), stakeholders can ensure that grey literature is uniquely identifiable and interoperable across platforms. Such collaboration is vital to filling the void left by discontinued services like OpenGrey and ensuring a comprehensive, multidisciplinary infrastructure for the future.

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