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'DIGITAL TRANSFORMATION OF GREY RESOURCES'

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The Grey Journal

An International Journal on Grey Literature

COLOPHON

About TGJ

The Grey Journal is a flagship journal for the international grey literature community. It crosses continents, disciplines, and sectors both public and private.
The Grey Journal not only deals with the topic of grey literature but is itself a document type classified as grey literature. It is akin to other grey serial publications, such as conference proceedings, reports, working papers, etc.

The Grey Journal is geared to Colleges and Schools of Library and Information Studies, as well as, information professionals, who produce, publish, process, manage, disseminate, and use grey literature e.g. researchers, editors, librarians, documentalists, archivists, journalists, intermediaries, etc.

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Javastraat 194-HS
1095 CP Amsterdam
Netherlands
T +31 (0) 20 331.2420
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About GreyNet

The Grey Literature Network Services was established in order to facilitate dialog, research, and communication between persons and organizations in the field of grey literature. GreyNet further seeks to identify and distribute information on and about grey literature in networked environments. Its main activities include the International Conference Series on Grey Literature, the creation and maintenance of web-based resources, a Global Distribution List and Social Media, and The Grey Journal. GreyNet is also engaged in the development of distance learning courses for graduate and post-graduate students, as well as workshops and seminars for practitioners.

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EDITOR'S NOTE

For over three decades, authors and researchers in the field of information have addressed the many challenges in publishing grey literature. In so doing, they have confronted core issues. Is grey literature published literature, and if so, how is it published; how does it differ from commercially published literature; and foremost how can it stay abreast with the technological developments that will ensure its access, uses, and preservation for scholarly research and citizen science well into the 21st Century.

The response to such questions lies in the collaboration and integrated roles of publishing bodies and their affiliate libraries and information centers, where grey literature is produced and processed. While currentness is inherent to grey literature in that it is situated at the cutting edge of research, and while it is comprehensive in that it captures the corpus of both the research process and issuing results, grey literature publishing often lacks the financial resources and technical expertise afforded commercial publishers.

Due consideration should be given to shared workflows grounded in an understanding and commitment that production and publication constitute two integral parts in publishing today's digital grey literature. GL2022 will address the components of such shared workflows embedded in FAIR data principles and implemented by diverse communities of practice in this our digital Century.

Dominic Farace,
Journal Editor

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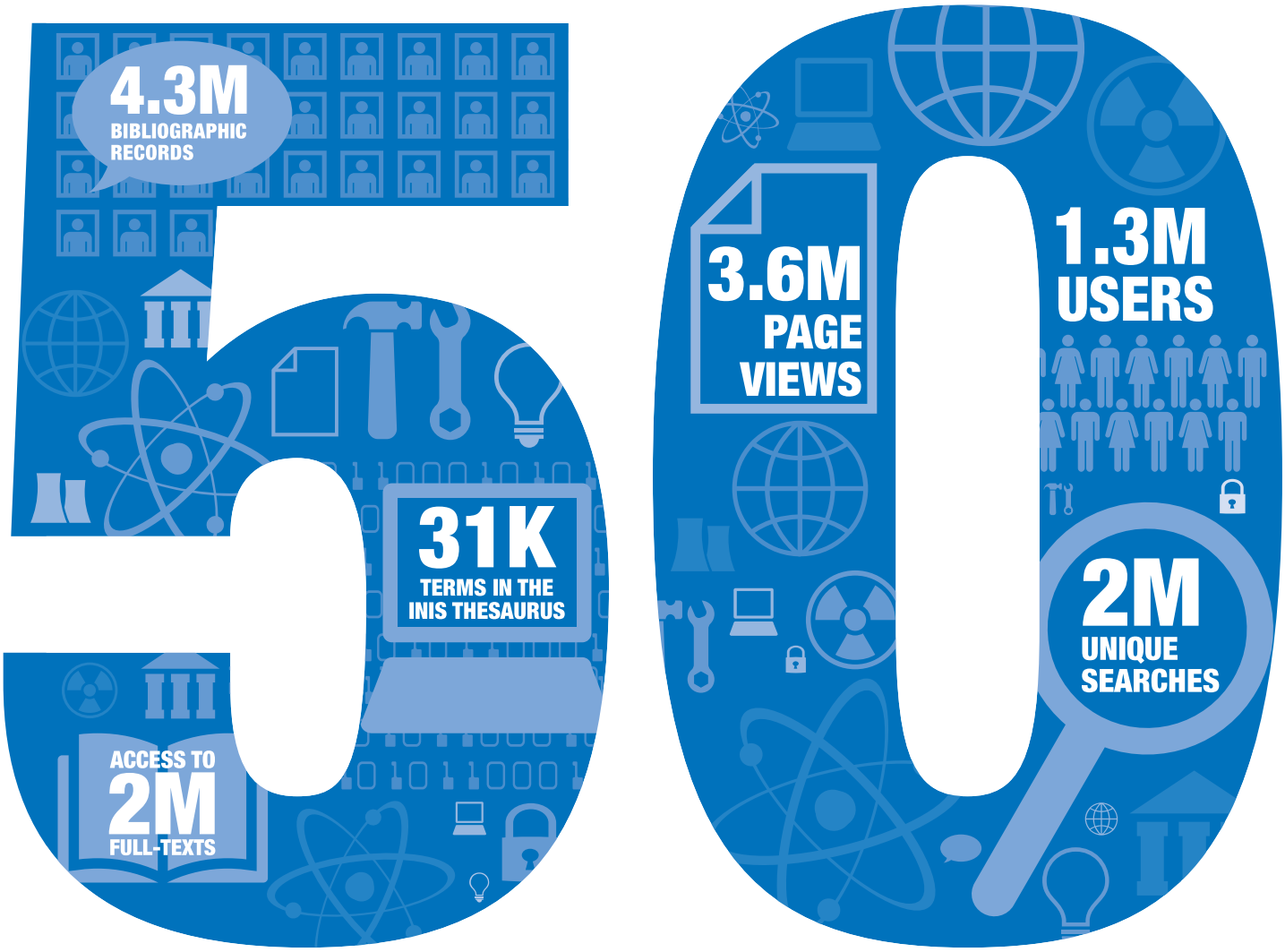

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The Impact of Digital Transformation on the Sustainability of Grey Literature*

Dobrica Savić, Nuclear Information Section, International Atomic Energy Agency, NIS-IAEA, United Nations

Abstract

Digital transformation makes an impact on organizations and businesses affecting many of their activities, either in a positive or a negative way. Once an organization starts on the road of digital transformation the impact is always considerable and long-lasting. Due to the specific nature of digital transformation to be able to impact whole industries, even if some organizations decide not to start with digital transformation, they may experience an indirect impact. The area of grey literature management is one of those activities that will have to deal with the indirect impact imposed by the digital transformation of host organizations and related activities. The nature of information work in general, the workforce, and the workplace are undergoing major changes. The same is the case with grey literature. Once it is severely impacted, its long-term sustainability might come into question. This paper deals with the sustainability of three main aspects of grey literature management — the nature of grey literature and the related work, the workforce, and the workplace. To provide sustainability of grey management some specific preconditions need to be met. For example, availability relates to long term preservation, and it includes physical and electronic storage. Also, efficient search and retrieval, together with format recognition, which is directly related to usability, are important preconditions of sustainability. All the preconditions mentioned are challenging tasks in the long run due to fast developments and frequent changes of IT systems, formats, standards, and protocols. All systems need to be fully operational and well maintained, which requires periodic updates, changes, and if needed, complete replacements. This is especially the case with outdated and propitiatory file formats that might become unusable over time. Despite all challenges, digital transformation provides the opportunity to enhance the management of grey literature, increase its value and importance, and improve its sustainability.

Keywords: *digital transformation, grey literature, sustainability*

Introduction

Our human nature makes us very curious about the world around us. However, whenever we face something new, like a new event, new gadget, new book or article, or a new topic such as this one, we immediately try to evaluate it to figure out what it is all about. More importantly, we view it from our own perspective and wonder why we should care about it or spend our time and energy on it.

The reasons why we should care about the impact of digital transformation on the sustainability of grey literature are numerous. Here are some of the more important ones:

- We are flooded with tons of information and documentation[1].
- It has become hard to keep track of various formats, in particular the grey literature formats. For example, the GreyNet website lists over 150 document types including databases, data sets, datasheets, data papers, satellite data, and product data[2].
- We are deeply immersed in the digital transformation of current business models.
- Digital transformation impacts the way we conduct our business.
- Digital transformation impacts the grey literature work, the immediate workplace, and the workforce involved.

* First published in the GL2021 Conference Proceedings, February 2022. - https://doi.org/10.26069/greynet-2022-000.470-gg

1 The information overload phenomenon has been known by many different names, including: information overabundance, infobesity, infoglut, data smog, information pollution, information fatigue, social media fatigue, social media overload, information anxiety, library anxiety, infostress, infoxication, reading overload, communication overload, cognitive overload, information violence, and information assault (D. Bawden 2020).

2 https://bit.ly/3naG2E1

- Lack of proper care for grey literature brings loss of data and information and loss of knowledge.
- We need to ensure the long-term availability of grey literature, the possibility for its retrieval, use, continuous value, and operability.

This paper looks at the concept of digital transformation and sustainability. It continues with the impact of digital transformation on the grey literature, in particular on the nature of grey literature work, on the grey literature workforce, the leadership, and the impact on the grey literature workplace.

At its end, the paper lists some of the grey literature sustainability principles and offers some conclusions.

Digital transformation

The first concept that needs to be defined is digital transformation. We are all immersed in it, but hardly ever have enough time to define and comprehend it sufficiently enough either from a theoretical or practical aspect.

> *A brief definition regards digital transformation as a process that leverages modern information technology and brings a large-scale change to business models, processes, and customer experiences in order to create value (i-SCOOP 2019).*

The main characteristics of digital transformation are:

- Creation of new business models using modern information technology (IT) and artificial intelligence (AI).
- Streamlining of production processes.
- Focus on customers' experience.
- Leveraging of existing knowledge.
- Change of organizational culture.
- Use of modern data and information management analytical tools.
- Emphasis on "values" and not "activities".

Sustainability

Our next concept that needs some clarification is sustainability.

> *It is the ability to continue at a particular level for a period of time. It also covers the present time by meeting the needs of the present without compromising the ability of future generations to meet theirs (Mollenkanp 2021).*

Another, and probably the most well-known definition of sustainability is the result of four years' work by the Brundtland Commission. According to their report "Our Common Future", sustainable development is:

> *Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission 1987).*

Sustainability has three main pillars: social, environmental, and economic. These three pillars are sometimes referred to as people, planet, and profits.

Sustainability helps meet the future needs of both people and businesses by maintaining the required resources. It deals with risk management, saves cost, and potentially drives innovation. It is usually associated with higher quality and in business, it refers to maintaining or sustaining profitability through the use of its assets.

Economic sustainability is a main concern regarding the grey literature sustainability. It is important to decide what sustainability goals will the organization implement, how will success be measured, what are the relevant standards for providing assurance on sustainability, and how will they be implemented. Of great importance is also the role of leadership in sustainability and how governance will function in the long run.

Grey literature

For the readers, the term grey literature is well known and fully understood. Therefore, I will offer just a very short reminder definition.

> *Grey literature represents any recorded, referable and sustainable data or information resource of current or future value, made publicly available without a traditional peer-review process (Savic 2017).*

This definition considers all major elements of the grey literature concept. Namely, long term preservation, sustainability, usability, and value, while acknowledging the lack of a traditional peer-review process of regular 'white' literature.

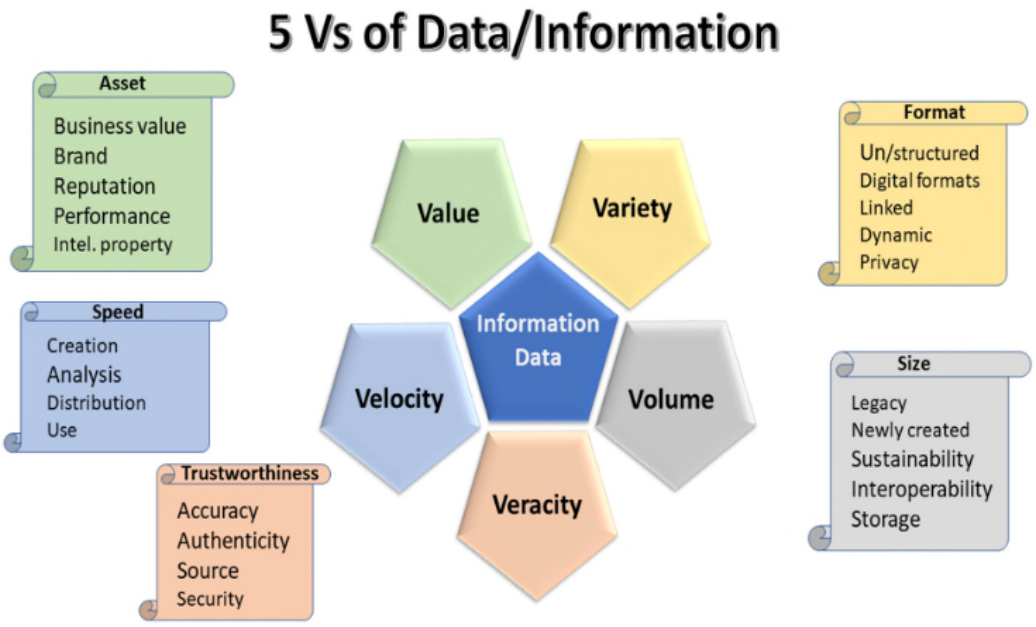
There are many new sources of data, such as the Internet of Things (IoT), Machine to Machine communication (M2M), self-driven cars, robots, sensors, security systems, surveillance cameras, and many other systems or apps using AI and machine learning.

The estimated number of currently connected electronic devices creating specific data varies by billions. Data produced by these devices is highly contextual and software dependent, making it hard to collect and process, and even harder to make sense of and preserve for future use.

Impact of digital transformation on the nature of grey literature work

Digital transformation impacts grey literature sustainability by changing the nature of grey literature work, placing new demands on the grey literature workforce, and also by changing the workplace.

Let's look at the changes brought to the nature of grey literature work. They are known as the **5 Vs** and are important in any analysis of information and data but also in knowledge analysis.



Drawing 1: Figure 1: 5 Vs of data/information

The 5 Vs represent the following data and information facets:

- **Variety -** new digital formats, unstructured, interlinked, dynamic, privacy issues.
- **Volume or size -** with legacy issues, interoperability, storage, possibility to manage it.
- **Veracity or trustworthiness -** including accuracy, authenticity, source control, and security.
- **Velocity or speed of creation -** analysis, distribution, use, and usefulness.
- **Value -** everyone's concern about information assets that cover business value, branding, reputation, performance, and intellectual property.

Impact of digital transformation on the grey literature workforce

Impact on the grey literature workforce and the roles of grey literature professionals is very sensitive. For example, some previous tasks and functions might be completely transformed, so functions such as search and identify could be replaced by a cognitive search, evaluation, and review by AI algorithms. Collection and processing might change into harvesting. Sharing and promotion might take a road of open access, while long-term maintenance and preservation might come against a stumbling block called organizational policies.

Requirements for new competences

To provide sustainable services and long-term access to scientific grey literature, professionals working on it will need a new set of competencies. Almost all the ones listed below are important. However, some might take more, while some might take less time and energy. Digital literacy and technical knowledge will become paramount, so lifelong microlearning and personal development become a must. Emotional intelligence, social skills, cultural and other diversity will need to be accompanied by a high level of digital ethics. It is assumed that this list of competency requirements will continue to grow.

Impact on leadership

As part of the general workforce, the impact on leadership is already substantial. Leaders are centre stage for digital transformation. The very nature of leaders' responsibilities undergoes substantial changes because in their new roles they are expected to navigate through the multitude of opportunities, identify the right path for their business and drive adequate and timely change. To that end, digital transformation also brings a lot of uncertainty (Bongiorno 2018).

Traditional approaches for managing business and IT no longer apply. New approaches are required, but they are emerging slowly. Any digital transformation effort will not simply affect IT function alone. It will impact an entire organization, its customers and partners. Risk management is one of the characteristics a new breed of leaders will need to develop since radical changes bring a possibility of "getting it wrong" and paying a high price for it.

Customer focus, good strategy and excellent communication, team building, quick learners, agile management and employee empowerment are just some of the bigger roles leaders will have to assume.

Impact of digital transformation on the grey literature workplace

The impact of digital transformation on the grey literature workplace and long-term sustainability is especially complex. Some of the major stumbling blocks include the old style of management, strict hierarchy, lack of flexibility, complex structures, legacy solutions, and many others. The way out of this, and the road to sustainable scientific grey literature, is through the use of new IT tools, digital dexterity, strong digital culture, removal of information silos, agility, team building, and remote work.

Grey literature sustainability principles

In order for something to be regarded as sustainable, grey literature included, the following criteria need to be met. It needs to be available for a long period of time, be operational and retrievable in the future, and remain usable and valuable.

Conclusions

This paper covered several interrelated concepts, all of them important, and worthy of further analysis and review. However, the most imperative conclusions worth mentioning are the following:

Digital transformation is already with us, it impacts all aspects of our work and it changes the way we create, disseminate, use, and preserve grey literature.

The **changing nature of grey literature** is seen by the increase in GL types and volume, the speed of its creation, the trustworthiness, and its value.

Grey literature sustainability requires that the collections are easily available, retrievable, and usable, as well as remaining valuable and operational.

Grey literature professionals need to develop new digital mindsets so that they can continue to be contributing and respected staff members of future organizations.

Grey literature leaders should improve organization competitiveness and productivity to achieve better results and high-quality services by leveraging IT technology, focusing on customers, empowering employees, and using analytics.

The **grey literature workplace** has already experienced many changes with the introduction of a 'new normal' brought about by the need to adapt to the COVID-19 pandemic by working from home, and still much more change is to come.

At the end of the day, we should remember the famous quote by Charles Darwin, "*it is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.*"

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Grey Literature in Open Repositories: New Insights and New Issues

Joachim Schöpfel and **Eric Kergosien**, University of Lille- GERiiCO, France
Hélène Prost, CNRS - GERiiCO, France; **Florence Thiault**, University of Rennes 2, France

Abstract
HAL is the national open repository for documents and data from French scientists. The paper analyses how grey literature is represented on HAL. It presents original empirical results from a follow-up study to former research, based on the scientometric assessment of deposits on the French national HAL repository by more than 1,200 research laboratories. These laboratories are affiliated to ten large French research universities and cover the whole range of scientific domains. We assessed the distribution of document types, the degree of openness, the use of open licenses and the attribution of a DOI. The results are discussed under three aspects: the development since 2019, reuse rights and identifiers.
Keywords: Open science, open access, open repositories, research laboratories, grey literature

Introduction

Open repositories and in particular institutional repositories have been described as "home for grey literature" (Luzi, 2010). They are complementary channels for the dissemination of academic research output insofar they contain other versions of published articles, chapters or books (preprints) and, moreover, documents that have (and probably will) not be published via the usual channels of academic publishing. Part of the open science movement, open repositories are a major factor for the global and free dissemination of research results. Following the EU Open Science Monitor[1], they represent about 25% of the published research, with large differences between countries and disciplines.

Since more than ten years, we assess the deposit of grey literature in open repositories, especially in France, to provide empirical elements for a better understanding of this part of scientific communication and to make recommendations for a better findability and accessibility of grey resources in repositories (see Schöpfel & Prost, 2010, 2014; Schöpfel et al., 2018, 2019, 2020; Stock & Schöpfel, 2009). Among our main findings:

- All open repositories contain grey literature[2].
- About one third of all deposits is grey literature.
- The part of grey literature is increasing over the years.
- The accessibility (degree of openness) of grey literature is higher than of commercial academic publications.
- The accessibility of grey literature varies between different repositories and between different document types, theses, reports and working papers being generally more open than conference papers.

In 2020, we presented original empirical results of 973,968 HAL deposits (30% of the total HAL content[3]) of more than 1,200 research laboratories from the ten most distinguished French research universities, including the University of Paris-Saclay ranked #13 by the 2021 Shanghai ARWU[4]. These laboratories cover the whole range of scientific disciplines, including medicine,

* First published in the GL2021 Conference Proceedings, February 2022. - https://doi.org/10.26069/greynet-2022-000.471-gg
[1] EU Open Science Monitor https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science/open-science-monitor/trends-open-access-publications_en
[2] Grey literature has been defined in various manner (Farace & Schöpfel, 2010; Schöpfel, 2011). Usually, grey literature is described as "unpublished", "not peer reviewed" and "not in databases" and meaning most of the time reports and conference papers (Schöpfel & Prost, 2020).
[3] HAL is the national open repository for French public research, with more than 2.6 deposits in August 2021 https://hal.archives-ouvertes.fr/
[4] Academic Ranking of World Universities https://www.shanghairanking.com/

law, economics and management. Based on this research, our paper contributes to a deeper understanding of the place of grey literature in open repositories through three complementary studies:

1. The evolution of the deposit of grey literature: is the part of one third stable over the time? How does the composition of grey literature change with the years?
2. The licensing of grey literature: what are the conditions of reuse of grey literature? Is open access to grey literature more "gratis" or more "libre"?
3. The existence of DOI for conference papers: which is the part of commercial publishing of conference papers?

In 2020, the major French research organisation CNRS decided the mandatory use of HAL for the reporting and assessment of the performance of the CNRS research laboratories and individual researchers. For this reason, the analysis of the 2021 deposits provides an exhaustive and reliable photography of the academic output and of the part of the grey literature.

Methodology

This paper presents results from an ongoing research project on open access strategies of French research laboratories[5]; it is a follow-up of two recent studies and employs the same methodology (Schöpfel et al., 2019, 2020). The sample consists of 1,213 research laboratories from the ten universities part of the French excellence initiative (IDEX). We used the laboratories' identifiers in the HAL repository for the API search of each laboratory's deposits (February 2021). The results were analysed based on the laboratory and deposit metadata (domain and discipline, university, deposit type, resource category). The API search retrieved 26 different HAL resource categories[6]; we merged and described them in the same way as in 2020 in order to simplify the description of the results (see Annex 1). In addition to the former assessment, we also analysed the availability of a DOI and the use of an open license.

Results

The part of grey literature

The API query retrieved 1,035,612 deposits which have been authored or co-authored by scientists affiliated to one of the 1,213 research laboratories of our sample. From all these items, 33.4% fall under the category of grey literature (figure 1).

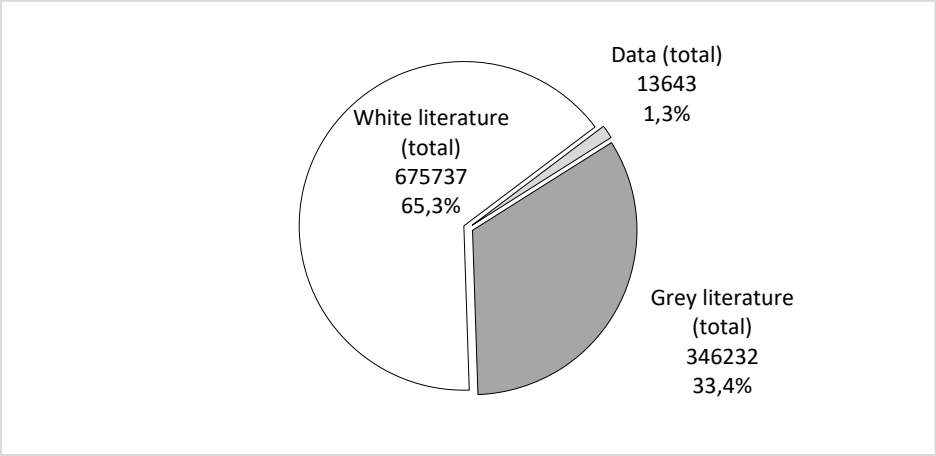

Figure 1. Part of grey literature (N=1,035,612 deposits)

Most of the grey literature consists of conference papers (70%), followed by PhD theses (11%) and working papers or preprints (8%). The different types of reports (project reports, activity or annual reports, short reports and report chapters) represent 5% while posters represent 4%.

[5] Project HAL/LO http://gis-reseau-urfist.fr/hal-lo-valorisation-sur-hal-de-la-production-des-laboratoires-dans-lenvironnement-de-la-science-ouverte/

[6] These categories may change in the future; in April 2021, a working group recommended a revision of the actual typology, with some new document types, such as data papers and data management plans; cf. https://www.ccsd.cnrs.fr/2021/04/evolution-de-la-typologie-des-documents-dans-hal-les-resultats-du-groupe-de-travail/

Other resource types are less important, such as BA and Master dissertations, habilitation theses or lectures, totalling together 2% (figure 2).

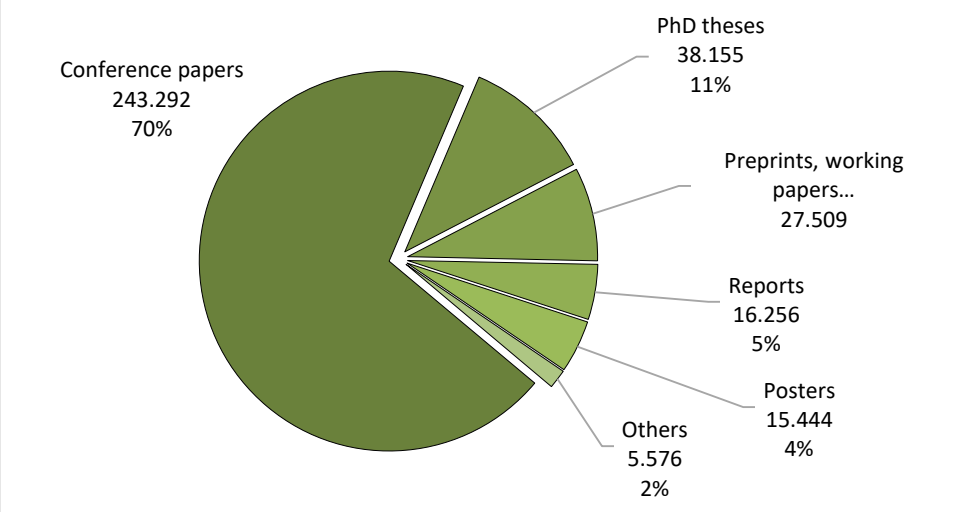

Figure 2. Types of grey literature (N=346,232 deposits)

Figure 1 shows that 1% of the deposits are neither white nor grey literature but datasets. HAL was designed as a document server but contains since 2010 the MédiHAL portal with deposits of visual and sound data (still images, videos and sounds), produced within the framework of scientific research. Also, there are some software deposits (codes) due to the partnership between HAL and the international Software Heritage project.

Degree of openness

The HAL repository contains deposits of full text and files as well as records, i.e., metadata without documents or data files. The part of deposits of full text in our sample is 32.3% which is similar to the overall percentage in HAL (32.9% in August 2021). This part of freely and openly available research output can be interpreted as degree of openness. If all deposits would consist of metadata and data (documents), this degree of openness would be 100%.

Figure 3 shows that the part of items with document and/or data files is significantly higher for grey literature (37.6%) than for white literature (28.2%).

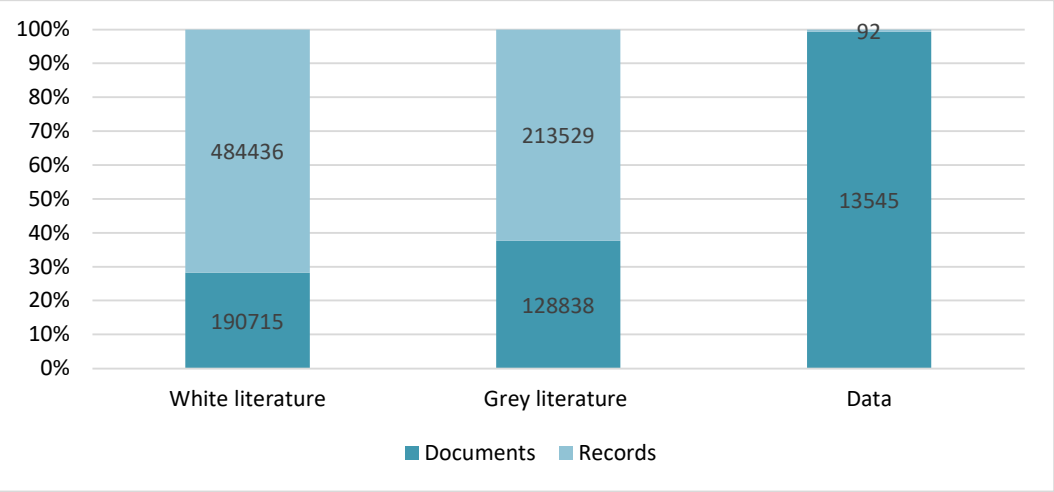

Figure 3. Deposits with and without document and data files (N=1,031,155 deposits, without annex files)

The differences between the document types are important. Figure 4 shows the part of full text for the different types of grey literature.

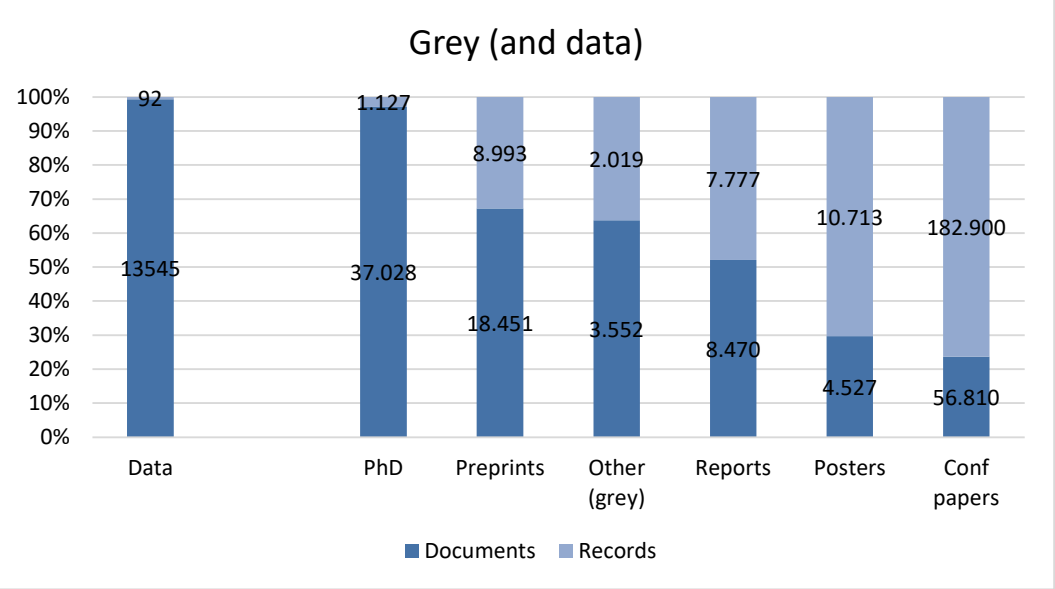

Figure 4. Grey literature deposits with and without document files (N=346,232 deposits)

The degree of openness of grey deposits is generally well above the average percentage, between 50% and near to 100%. The explanation of the exceptional part of openly available PhD theses (97%) is that the self-archiving of a PhD thesis on the HAL platform requires systematically the deposit of the text file.

The open part of the conference contributions, papers and posters, are lower, with 29% open posters and 23% open papers. This lower degree of openness is similar to the percentage of full text deposits of articles, books, chapters etc. (figure 5).

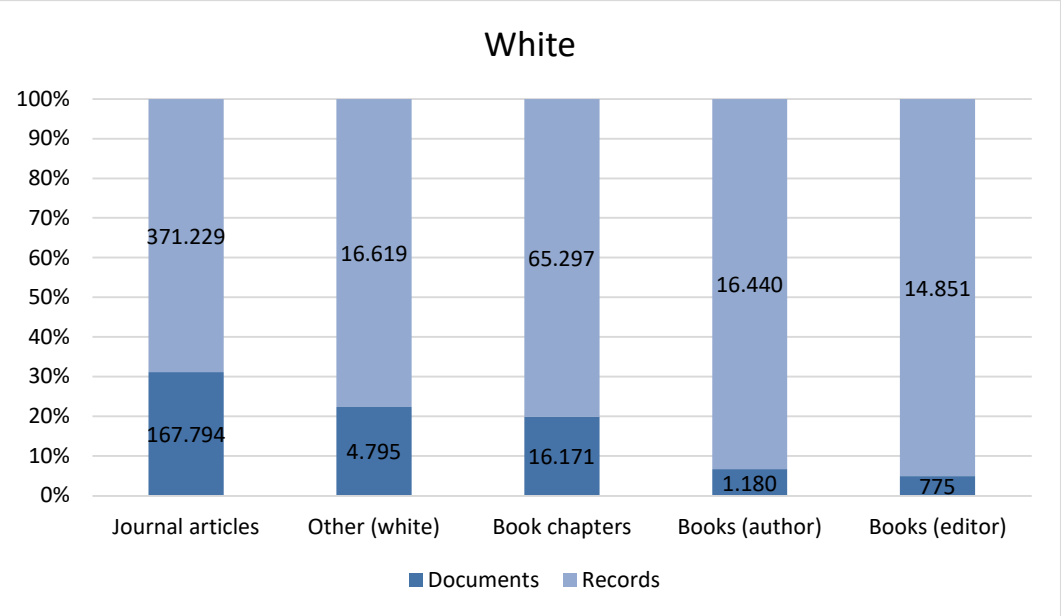

Figure 5. White literature deposits with and without document files (N=657,737 deposits)

31% of the journal articles are openly available on the HAL platform; the degree of openness of chapters, edited and authored books and other white resources is even lower.

Two other observations may be interesting. First, the part of grey literature of all deposits with full text is 40% which is higher than the overall part of grey literature (34%). Second, figures 3 and 4 include the degree of openness of datasets which is exceptionally high (99%); nearly all datasets have been deposited with the data files. Again, the reason is rather simple: MédiHAL,

the data portal of HAL, requires the deposit of the data files for each data deposit. Only some software records have been created without the code files.

Disciplinary differences

Each research laboratory has been indexed with a large scientific domain and with a more specific research discipline. In the following, we present the analysis of the HAL deposits regarding four large scientific domains, i.e., science and technology (SciTech), life and medical sciences (BioMed), social sciences and humanities (SSH), and law, economics and management (Law, Econ). Figure 6 shows that there are significant differences between the four domains.

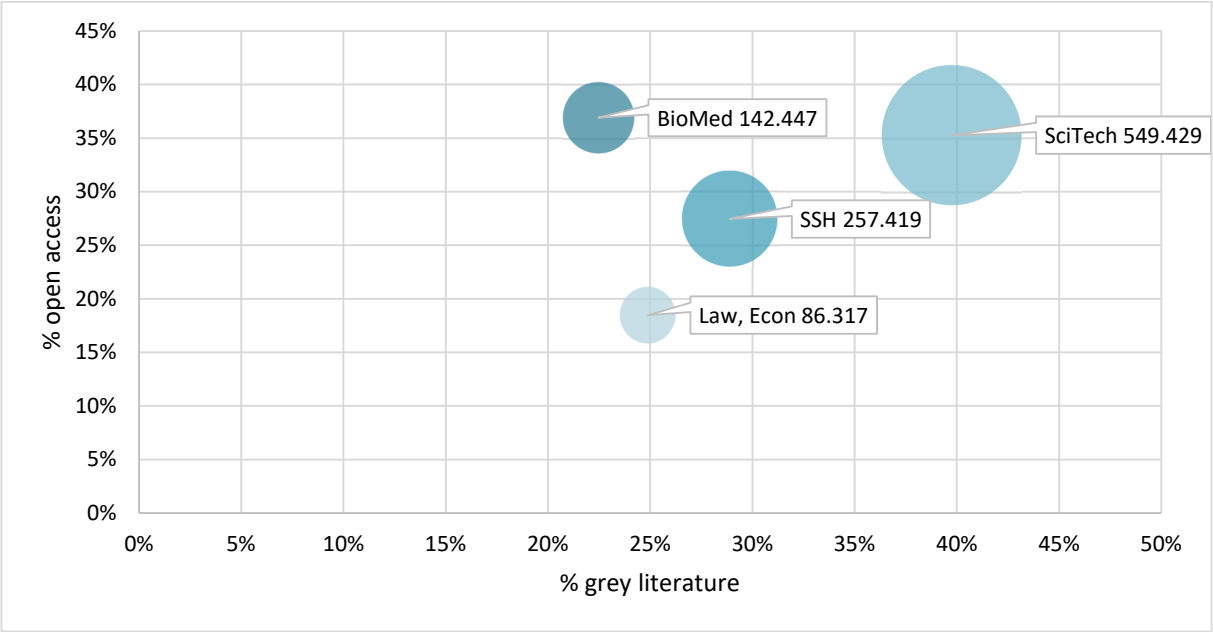

Figure 6. Degree of openness and part of grey literature in four scientific domains (N=1,035,612 deposits)

The deposits of the laboratories in life and medical sciences have the highest degree of openness (37%), followed by those in science and technology (35%). The same indicator is lower in social sciences and humanities (27%) and in law, economics and management (18%).

On the other hand, the laboratories in science and technology have the highest part of grey literature (40%), followed by those in social sciences and humanities (29%), law, economics and management (25%) and life and medical sciences (22%).

Figure 7 presents additional results with a more detailed distinction of ten scientific disciplines; the size of the bubbles represents the number of deposits (for the complete figures, see Annex 2).

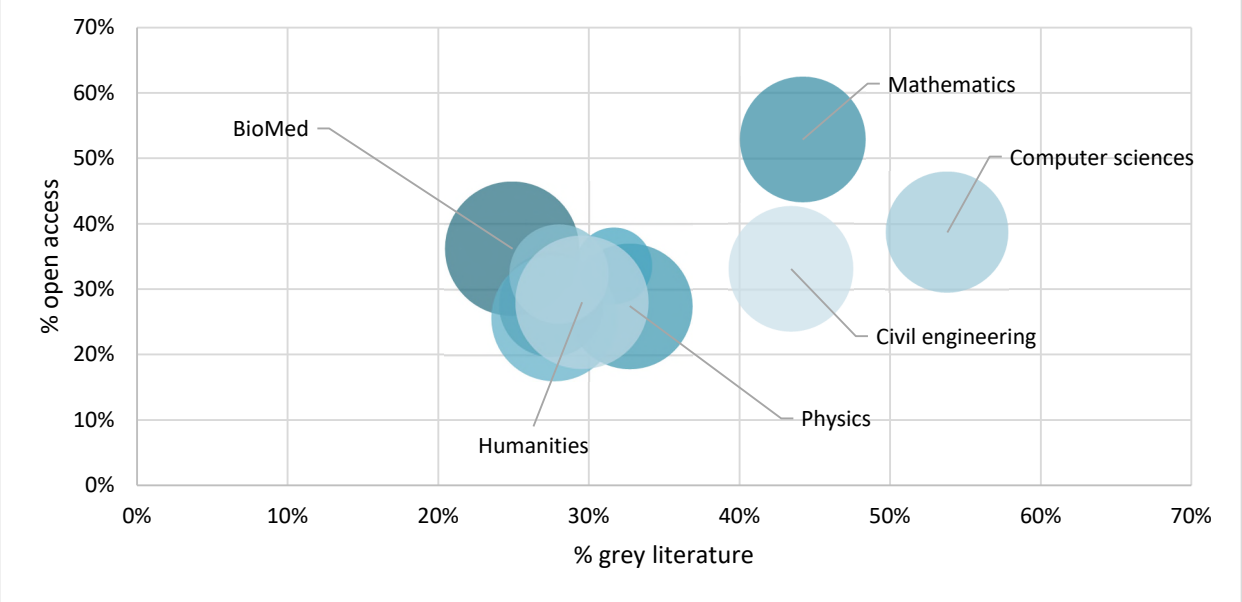

Figure 7. Degree of openness and part of grey literature per discipline (N=1,035,612 deposits)

For most disciplines, the grey part of the HAL deposits represents more or less 30%, varying from 25% (life and medical sciences) to 33% (physics). Three disciplines have significantly more grey literature: civil engineering (43%), mathematics (44%) and computer sciences (54%). Conference papers represent most of this grey literature.

Regarding open access, the part of openly accessible documents is about 30% for most disciplines, varying from 26% (social sciences) to 36% (life and medical sciences). The degree of openness is higher for computer sciences (39%) and particularly for mathematics (53%).

The mapping of document types against scientific disciplines reveals significant differences regarding open access (degree of openness) and relative importance (part of all deposits) (see table in annex 3). Some observations:

- The only grey document type that is really important are conference papers, especially in life and medical sciences (16%), mathematics (9%) and computer sciences (7%). Compared to the overall number of deposits, other grey resources like reports, preprints or working papers are much less important (even if they may contain unique and significant content).
- For conference papers, the degree of openness is higher in mathematics (39%), humanities (37%) and computer sciences (33%) than in physics (13%) or social sciences (12%).
- Regarding reports, mathematics, computer sciences and civil engineering are the disciplines with the highest degree of openness (>80%).
- Regarding working papers and preprints, humanities, mathematics and computer sciences are the disciplines with the highest degree of openness (>70%).

DOI

A digital object identifier (DOI) is a persistent identifier used to identify objects uniquely. The DOI system has been introduced in 1998 and standardized in 2012 (ISO 26324). Following the DOI website, approximately 257 million DOI names have been assigned to date[7]. While the initial focus on entities was documents/media (e.g., articles and data sets), the DOI system is now moving into parties and licences and extending to other sectors.

The initial initiative was taken by the three major international publishing trade associations in order to develop infrastructure for digital publishing. Today, a large part of DOIs is still attributed to articles, book chapters etc. by stakeholders of the traditional publishing economy.

[7] DOI https://www.doi.org/factsheets/DOIKeyFacts.html

The analysis of the HAL deposits provides the opportunity to assess the part of DOIs assigned to non-conventional literature, such as dissertations, reports, working papers and communications.

Of 1,179,145 analysed items, 486,474 have a DOI (41%). 90.5% of these deposits with DOI are white literature, mainly journal articles (88%) and book chapters (2%). 9.5% of the deposits are grey literature, mainly communications (9%), posters (0.2%) and preprints (0.3%).

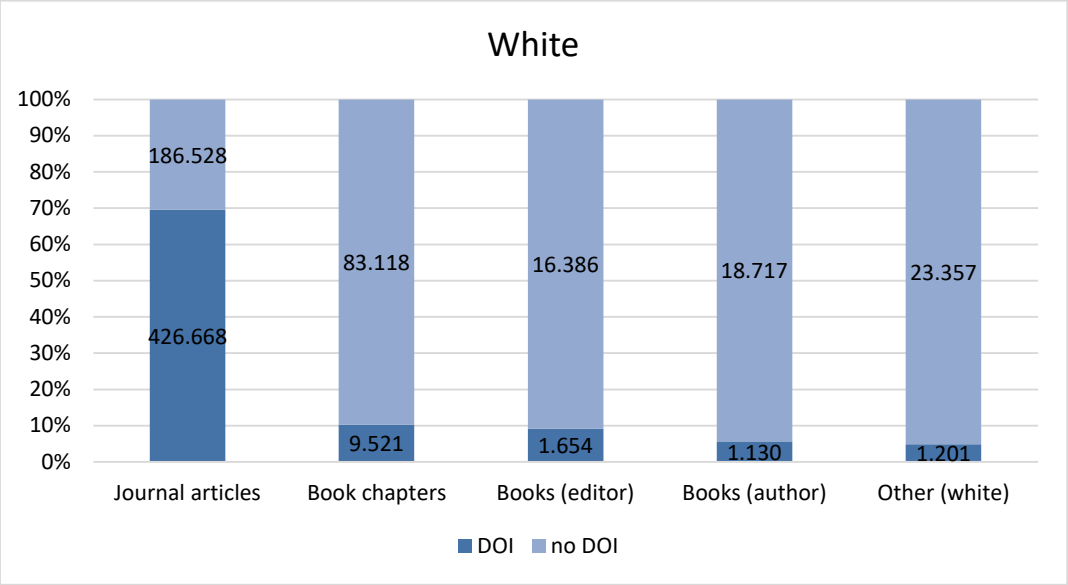

Figure 8. White literature with DOI
(N=768,280 deposits)

While 70% of all deposited articles have a DOI (the percentage for book chapters is 10%, for edited books 9%) (figure 8), the part of communications with DOI is only 15% (posters 5%, preprints 4%) (figure 9).

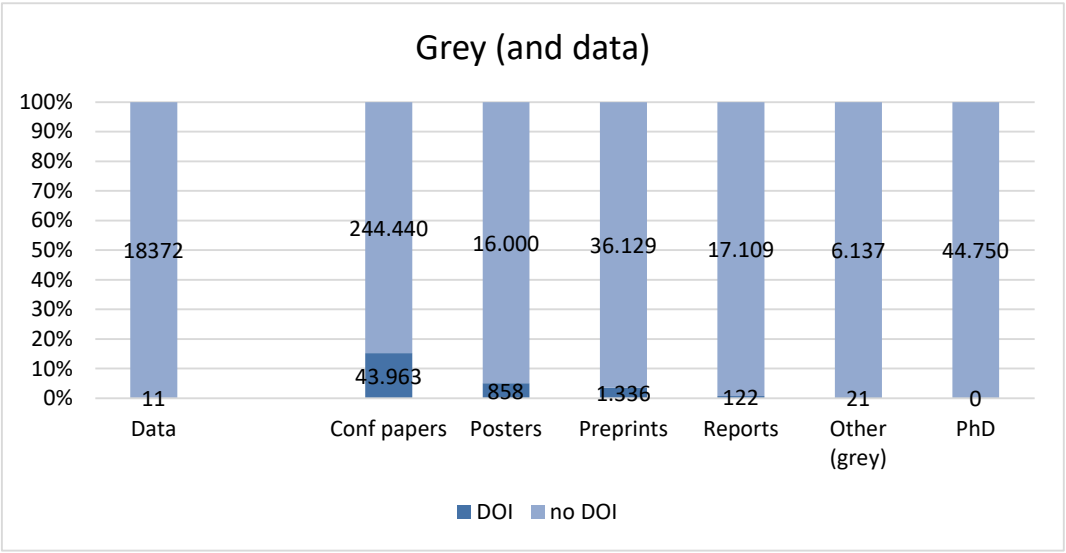

Figure 9. Grey literature with DOI
(N=410,865 deposits)

Licensing

By default, the deposits of documents on HAL are published under the French IP law. However, HAL offers the possibility to publish with a license, under copyright or in the public domain, with ten different options. We analysed the legal regime of 351,672 published documents on HAL (table 1).

Legal conditions	Documents	%
By default (French IP law)	298 906	85,0%
Copyright	9 972	2,8%
CC-BY	19 309	5,5%
CC-BY-SA	2 178	0,6%
CC-BY-NC	4 003	1,1%
CC-BY-NC-SA	2 186	0,6%
CC-BY-ND	1 078	0,3%
CC-BY-NC-ND	10 394	3,0%
CC0 Public Domain Zero	82	0,0%
NC Public Domain Mark	29	0,0%
Etalab Open License	99	0,0%
Public domain	3 436	1,0%

Table 1. Legal regime of publishing
(N=351,672)

85% of the documents are published under the French IP law, by default. 11% of the documents are published with a Creative Commons[8] or Etalab[9] open license, 1% are published in the public domain, with a CC Zero Public Domain Dedication (CC0), with a NC Public Domain Mark or with a simple public domain indication (figure 10).

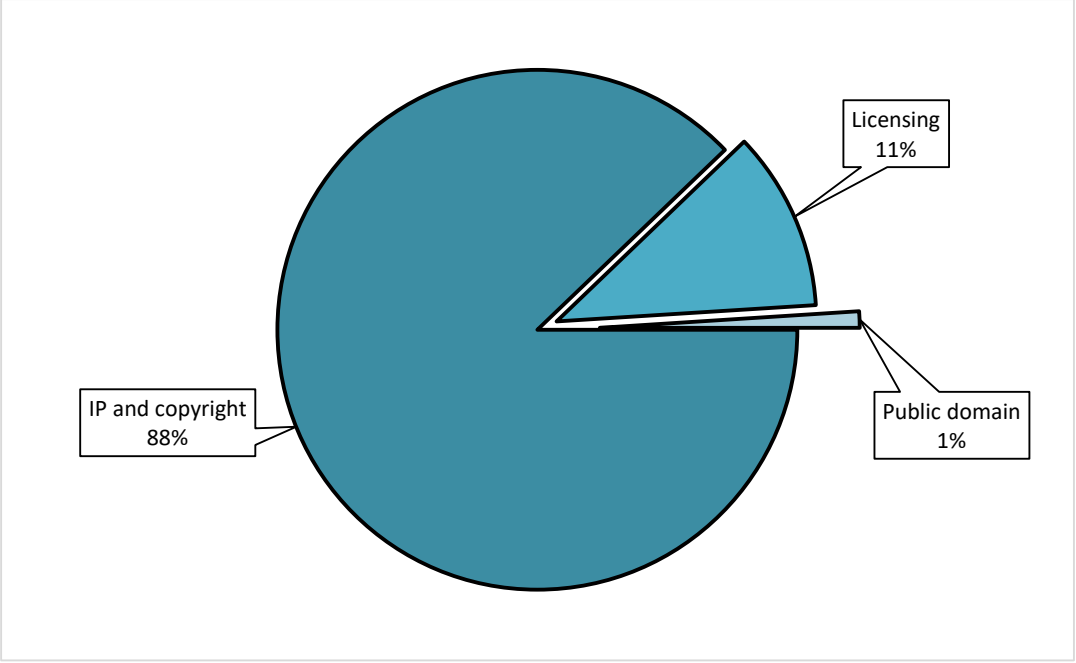

Figure 10. Legal regime of publishing
(N=351,672)

39,148 documents are published with a Creative Commons license (11%, without CC0). Nearly half of these documents are published with a (liberal) CC-BY Attribution license, 26% are published with a (more restrictive) CC-BY-NC-ND license which doesn't permit any commercial use and any derivatives or adaptations of the work (figure 11).

[8] Creative Commons https://creativecommons.org/
[9] Etalab is the French public agency in charge of the open data strategy https://www.etalab.gouv.fr/

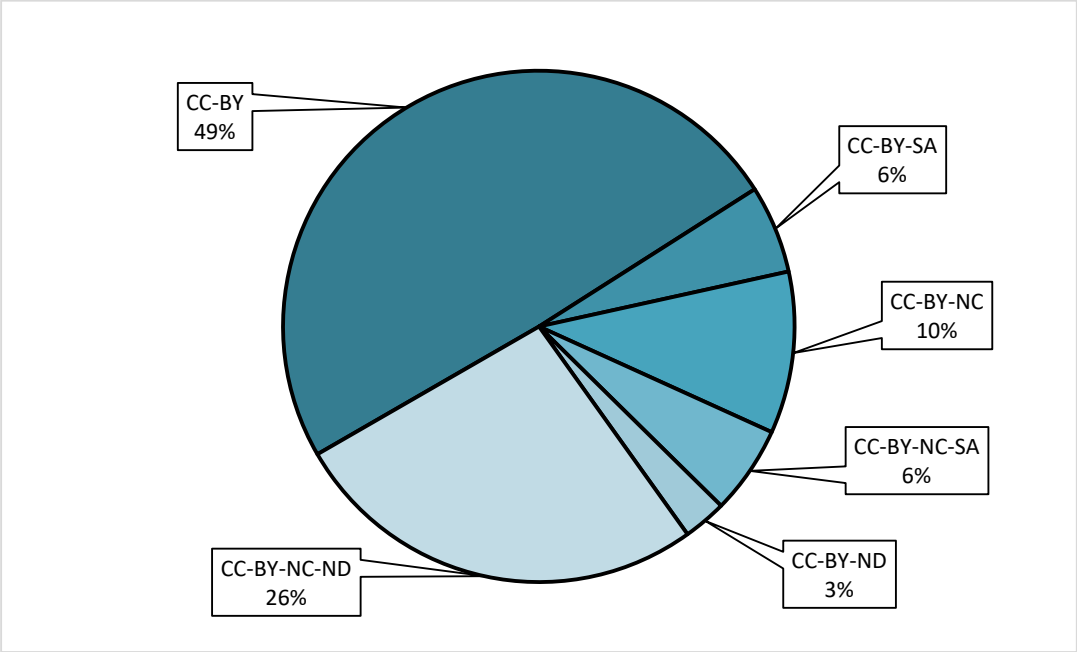

Figure 11. Creative Commons licenses (N=39,148)

For a small subsample of 22,508 deposited files from 70 laboratories we analysed the distribution of open licenses and document types. The results can be resumed as follows:

	Grey documents	White documents
CC-BY	1114	3676
CC-BY-SA	377	262
CC-BY-NC	205	501
CC-BY-NC-SA	271	352
CC-BY-ND	81	454
CC-BY-NC-ND	941	2316

Table 2. Publishing with open licenses (N=10,550)

- Grey items are less often published under an open license than articles, book chapters and other "white" documents. In fact, open licenses are most often applied to the sharing of research data and other materials, like images, AV files or software.
- Regarding different grey items, especially PhD theses are very seldom published under an open license, less often than posters, reports and other, miscellaneous documents.
- The most important licenses applied to grey literature are the liberal CC BY (Attribution) license (37%) and the restrictive CC BY-NC-ND (Attribution-NonCommercial-NoDerivs) license (31%). The main difference with articles, books and so on is that the part of the Wikipedia CC BY-SA (Attribution-ShareAlike) and the more restrictive CC BY-NC-SA (Attribution-NonCommercial-ShareAlike) licenses is more important for the publishing of grey literature (together 21%, against 8% for white items) (table 2).
- Publishing in open domain, for instance with a CC0 (Creative Commons Public Domain Dedication), plays nearly no role for grey items, similar to articles, books and so on.

Discussion

Changes

Since 2020, the number of grey items in our sample of more than 1,200 research laboratories increased by 2.5% (= 8,491 new deposits). This is less than the overall growth of all deposits

(6.3%) and less than the articles, book chapters etc. (white literature) of which the number has risen by 8.1%. As a result, the part of grey literature decreased from 34.7% in 2020 to 33.4% in 2021. This is a general evolution in all domains and disciplines, even if in some disciplines (especially in civil engineering, computer sciences and physics) the observed decrease is a little bit more important than in others.

There are probably two main reasons for this slight relative decrease. The first is the new open access policy launched by the French research organisation CNRS in 2020; researchers from the CNRS laboratories must deposit their publications on the HAL platform for their individual annual assessment, and as this assessment focusses on published articles, their number and part increased in a significant way. The second reason is the secondary exploitation right introduced by the 2016 Digital Law which foster the deposit of published articles on open repositories and in particular, on HAL, and which doesn't include other document types.

However, this development should not be described as an erosion but is probably more as a kind of ceiling or capping of the part of grey literature at a level of about 33%.

Simultaneously, it can be observed that the part of open access among the grey literature slightly increased from 36.6% in 2020 to 37.6% in 2021, which is consistent with the open access strategy of the French government, the universities and research organisations. The differences of openness between the types of grey literature remained stable and unchanged, except for working papers and preprints where the degree of openness increased by 3%. In a more general way, grey items remain more accessible than articles and books, with one exception, like in the past: the openness of communications, i.e., the accessibility of papers presented at scientific events, remains low. Again, there may be at least two reasons for this lack of openness: first, for one part of the communications, there may be simply no written and publishable papers; second, another part of the communications is not really grey literature, as defined by the Luxemburg, New York or Prague definitions, insofar they are published (and controlled) by traditional academic publishing houses. The attribution of DOIs for 15% of the deposited communications is an indication for this distinction.

Reuse rights

Globally, IP and copyright protection is dominant. Only a small part of documents has been published with open licenses, mostly with the liberal CC-BY license which is the license preferred and fostered by French public research institutions and with the more restrictive CC-BY-NC-ND license. Very few documents have been published in the open domain. Regarding the FAIR principles, this means that the reusability of most of the HAL documents is not very high, in contrast to the research data and other materials deposited on HAL which are more often published under an open license. The results of a small subsample of 70 laboratory collections show that the two Creative Commons ShareAlike licenses are more often used for grey literature than for the sharing of journal articles, book chapters and so on, and that very few PhD theses are published under an open license. However, because of the small size of this subsample we should be careful and avoid generalizing interpretations of these results.

Identifiers

The attribution of DOIs is not limited to documents published by commercial academic publishing houses but in fact, it is. Up to now, very few academic or research institutions assign DOI names to their research output. Perhaps the growing DataCite network will change the game but for the moment, the DataCite DOIs are above all assigned to research data and software, not to other items, even if (at least in France) academic libraries started a discussion about the attribution of DataCite DOIs to documents like dissertation and theses, reports and so on.

Two aspects should be highlighted: As we have already said before, as long as DOIs are not massively assigned to grey literature like dissertation, reports, working papers, conference papers and so on, these documents will remain largely out of scope of altmetrics tools and open science monitoring, as both are mainly (exclusively) based on DOIs (Schöpfel & Prost 2016 and

2019). “Researchers wishing to assess impact of their own grey literature should endeavour to create DOIs where appropriate so persistent identifiers already used to assess impact by other mediums (Altmetric, n.d.) can be extended into the grey literature realm” (Bickley et al., 2021).

The fact that 15% of the deposited communications on HAL have a DOI can be seen as an indication that these deposits are probably not natively grey but white literature, published in proceedings and journals by publishers like Springer Nature, Elsevier, IEEE and so on. Here, we should be careful with the application of the concept of grey literature to documents which in fact are not (are no lo,nger or have never been) grey items.

We already discussed the “greyness” of electronic theses and dissertations (ETDs) elsewhere (Schöpfel & Rasuli, 2018). In France, ETDs became mandatory in 2016. Since then, each PhD dissertation must be submitted to the French national ETD infrastructure STAR, will be available (if not confidential) via the national ETD portal theses.fr and the European portal DART-Europe and is preserved in a national and sustainable long-term dark archive hosted by the public agency CINES. And if not decided otherwise by the author, it will be accessible on the HAL platform (TEL portal) or on an institutional repository, embargoed or not. Thus, French theses have become significantly since 2016 less grey than before, and that is good news.

Conclusion

Our paper presents empirical results of a follow-up study on the deposits of more than 1,200 French research laboratories on the national open repository HAL. The figures show a significant increase of all deposits since 2020 (+6%), a growth which seems consistent with the global development of scientific performance and with the open science strategy of the French government and institutions.

As in 2020, the part of grey literature is about one third of all deposits, and this part is generally more accessible (with more deposits of document files) than articles and books. The general impression is that of continuity and stability, without significant changes since last year. However, it can be observed that HAL has become (a bit) more open and at the same time, (a little bit) less grey. We have provided some possible reasons for this development, such as the open science strategy of the French government, the secondary exploitation right for French public research and the mandatory open access policy of the CNRS.

In terms of FAIRness, the situation can be described as follows:

FAIR principle	General observation	Grey documents
Findability	Less than half of the deposits have a DOI	Weaker than articles
Accessibility	All deposits are retrievable on HAL with the standard OAI protocol but only for one third the document is accessible	Globally better than for articles and books
Interoperability	n/a	n/a
Reusability	Weak – only 15% items are released with a license	Similar

The comparison between white and grey deposits shows that the two FAIR principles findability and reusability remain a challenge for the production and the publishing of grey literature on HAL, because of the low levels of DOI assignment and of licensing.

As the deposit of publications on HAL becomes more mandatory and thus, more representative for the overall output of French research laboratories, it is possible that we can see here a kind of ceiling of grey literature, on different levels depending on disciplines and institutions. It will be interesting to assess the impact of new forms of scientific communication, such as webinars or preprints, especially in the aftermath of the Coronavirus pandemics. For the moment, we can’t see any significant effect on the HAL platform, probably because these new forms are not relevant for the research assessment, career decisions and so on.

The development of conference papers in particular and of all kind of resources related to scientific events in general will be particularly interesting for the understanding of the future of grey literature. They are not only the most important part of the traditional "grey document types" but they are also somehow on the edge, partly grey, and partly controlled by commercial publishing.

The future will also show how the international (European) open science policy in favour of gold open access (article publishing in open access journals) will impact the development of open repositories like HAL. If more and more articles are freely available on journal platforms, maybe that those repositories will become (again) a home for grey literature, not controlled by commercial publishing. Perhaps this will also change our understanding of this part of scientific communication.

Acknowledgments

The study is part of the research project HAL/LO funded by GIS "Reseau URFIST" from 2019-2021 with 10,000 euros. We would like to express our gratefulness to the whole project team for rich discussions and especially to Bernard Jacquemin for data extraction from the HAL platform, and we would also like to thank Bénédicte Kuntziger from the CCSD for helpful advice.

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Annex 1 - Resource categories and types

HAL category	Merged category	Resource type
Journal article	Articles	White
Book (author)	Books (author)	White
Book (editor)	Books (editor)	White
Book chapter	Book chapters	White
Other	Other (white)	White
Communication	Conference papers	Grey
Poster	Posters	Grey
PhD thesis	PhD theses	Grey
Report	Reports	Grey
Activity report	Reports	Grey
Short report	Reports	Grey
Report chapter	Reports	Grey
Other report	Reports	Grey
Undefined	Preprints, working papers…	Grey
Habilitation	Other (grey)	Grey
Lecture	Other (grey)	Grey
Master dissertation	Other (grey)	Grey
BA dissertation	Other (grey)	Grey
Lecture note	Other (grey)	Grey
Presentation	Other (grey)	Grey
Patent	Other (grey)	Grey
Image	Data	Data
Map	Data	Data
Software	Data	Data
Audio	Data	Data
Video	Data	Data

The HAL category “other” consists of book reviews, encyclopaedia entries, translations etc., most of them reviewed publications. The HAL category “undefined” consists mainly of working papers, preprints and other, non-reviewed and unpublished documents. Some of the HAL resource categories are specific to a particular, institutional workflow (i.e., ingestion of records from institutional partnerships), such as BA dissertations, lecture notes and report chapters; they represent very small figures (<100) and have been merged (reports) or included in the “other” category.

Annex 2 – Disciplinary differences

	Nb of deposits	% grey literature	% open access
BioMed	225 941	25%	36%
Chemistry	135 541	28%	28%
Mathematics	87 176	44%	53%
Physics	197 509	33%	27%
Agronomy, ecology	73 530	32%	34%
Social sciences	199 633	28%	26%
Earth sciences, space	124 108	28%	32%
Computer sciences	185 032	54%	39%
Humanities	223 067	30%	28%
Civil engineering	195 253	43%	33%

Annex 3 – Disciplinary differences and document types

For three grey document types: conference papers, reports and working papers/preprints.

Discipline	Nb of labs	Document type	Deposits	Records	Documents	% deposits	% open access
Agronomy, ecology	21	Conference papers	3 080	2 534	505	4,2%	16,4%
BioMed	356	Conference papers	35 324	25 778	8 816	15,6%	25,0%
Chemistry	38	Conference papers	3 523	2 763	675	2,6%	19,2%
Civil engineering	37	Conference papers	8 933	6 505	2 276	4,6%	25,5%
Computer sciences	24	Conference papers	13 780	9 047	4 526	7,4%	32,8%
Earth sciences, space	10	Conference papers	3 790	2 663	1 047	3,1%	27,6%
Humanities	24	Conference papers	2 242	1 316	821	1,0%	36,6%
Mathematics	12	Conference papers	7 732	4 634	3 027	8,9%	39,1%
Physics	31	Conference papers	8 038	6 877	1 078	4,1%	13,4%
Social sciences	13	Conference papers	1 109	962	131	0,6%	11,8%
Agronomy, ecology	15	Reports	255	155	100	0,3%	39,2%
BioMed	158	Reports	1 717	641	1 076	0,8%	62,7%
Chemistry	14	Reports	81	30	51	0,1%	63,0%
Civil engineering	20	Reports	147	29	118	0,1%	80,3%
Computer sciences	13	Reports	454	65	389	0,2%	85,7%
Earth sciences, space	8	Reports	277	148	129	0,2%	46,6%
Humanities	15	Reports	83	51	32	0,0%	38,6%
Mathematics	8	Reports	364	36	328	0,4%	90,1%
Physics	14	Reports	140	74	66	0,1%	47,1%
Social sciences	11	Reports	126	94	32	0,1%	25,4%
Agronomy, ecology	15	Preprints, working papers	261	180	80	0,4%	30,7%
BioMed	240	Preprints, working papers	3 369	1 082	2 272	1,5%	67,4%
Chemistry	26	Preprints, working papers	575	290	284	0,4%	49,4%
Civil engineering	32	Preprints, working papers	686	221	465	0,4%	67,8%
Computer sciences	20	Preprints, working papers	578	146	429	0,3%	74,2%
Earth sciences, space	10	Preprints, working papers	538	288	250	0,4%	46,5%
Humanities	23	Preprints, working papers	183	33	150	0,1%	82,0%
Mathematics	11	Preprints, working papers	1 003	288	712	1,2%	71,0%
Physics	27	Preprints, working papers	1 091	465	625	0,6%	57,3%
Social sciences	11	Preprints, working papers	219	126	92	0,1%	42,0%

Improving guidelines for video abstracts: An analysis of the most popular videos abstracts in the TIB AV Portal*

Margret Plank and Jens Kösters,
TIB Leibniz Information Centre for Science and Technology, Germany

Abstract
Today, more and more scientific videos are published online. One visual format that seems particularly suitable for communicating scientific content is the video abstract. This is the 3-5 minutes long moving image equivalent of a written abstract. With this format, scientists have the opportunity to explain the results and background of their concrete research work as well as the methods used, the study results, and possible implications to a potentially larger audience. Recently, some studies have been published on this subject, in particular with a focus on content analysis for specific domains and classifications of online videos in general. This paper explores the topic of video abstracts and publishing guidelines in order to answer the following question: „Do authors follow the existing guidelines and are the guidelines sufficient for the publication of a scientific work?". In a literature and web review we looked at the existing publishing guidelines and extracted the major rules. A database from the most viewed thirty-three video abstracts, published on the TIB AV-Portal was created. Each video was analyzed for different criteria such as link to corresponding paper and research data, length, formats etc.. Results indicate that the most common guidelines were followed by the authors, such as max. 4 minutes length, inclusion of additional relevant material such as images, animations, and lab footage as well as good audio quality. However there is still a lot of potential to get more out of video abstracts e.g. adding a title and a link to the corresponding paper and research data.
Keywords *Video Abstracts, Video Platforms, Scientific Videos, Publishing Guidelines, Video Design*

Introduction

The scientific community thrives on the exchange, communication and dissemination of research results, ideas and projects. This takes place to a large extent at conferences, meetings, symposia and workshops, without which the scientific landscape would be inconceivable. Traditionally, the results are published in the form of articles or proceedings, thus documenting the current state of research. The advent of digital media has fundamentally changed information, communication and work behavior in science and society. Communicating research results in the form of or with audiovisual media has become a modern, rapidly growing part of scientific communication (Leon & Bourk, 2020). This has a great potential to communicate scientific findings to a wide audience that would otherwise hardly learn about the valuable research results (Bucher 2020, Leon & Bourk, 2020).

State of the Art Video Abstracts

Scientific videos have gained popularity in the last decade (van Edig, 2016, Ferreira et al., 2021). There are a number of different formats of scientific videos, such as conference recordings, project documentations, video data from qualitative research, and recorded experiments. Studies on the classification of online scientific videos (Boy et al., 2020, Morcillo at al 2016) also distinguish between presentation, expert, animation, and narrative videos, while others first make a rough distinction between TV and online formats and other subgenres (Garcia-Aviles and Lara, 2020). One visual format that seems particularly suitable for communicating scientific content is the video abstract (Berkowitz 2013, Fereira et al 2021) (hereafter abbreviated: VA). This is a 3-5 minute moving image equivalent of a written abstract (Berkowitz, 2013; p.1).

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This format gives researchers the opportunity to explain the findings and background of their specific research, as well as the methods used, study results, and possible implications to a potentially larger audience (Plank et al 2018). VAs can be embedded in researchers' websites, institutes, or science blogs, shared on social media, and included in lectures. In this way, they develop a visibility that extends into various social and economic spheres. Science journalists, decision makers, and interested lay people can thus learn about the latest results and discussions in science. Similarly, VAs can be helpful in keeping up with the growing body of interdisciplinary research and providing an overview of research outside one's own discipline (van Norden, 2015). Another benefit of VA creation is to revisit one's research findings in a different format. To this end, Dr. Whitesides from Harvard has his students create three-minute summaries of their research findings in VA style (Whitesides, 2011). Spicer (2014) showed in a study using the New Journal of Physics (published by IOP Science) that articles accompanied by a VA are more likely to be downloaded than those without. Of the top 25 articles with the highest usage, 36% had an associated VA (Spicer, 2014; p.9). A VA can thus be a useful tool for converting video views into downloads of online articles-especially when published in open-access journals (Watkins, 2016). Moreover, VAs positively influence the citation rates of scientific articles, as Zong et al. (2019) explain in their study - also based on the "New Journal of Physics".

Publication and Guidelines

The whole idea behind a video abstract is to publish it online and directly link it with a scientific paper that has been accepted and published in a scientific journal. On the one hand, numerous commercial platforms are available for the publication, such as YouTube or Vimeo. Cell Press[1] was one of the first publishers to recognize the potential of VA and set up its own YouTube Channel as early as 2009. Renowned scientific publishers such as Copernicus Publications, IOP Science, Elsevier, Wiley, and Taylor & Francis have also started to offer the possibility to submit VAs and link them to the respective reference article. The popular transdisciplinary repositories Figshare [2]and Zenodo [3]support the publication of videos as research output. Videos receive a Digital Object Identifier (DOI), descriptive metadata, and author information are available. The open US platform WeShareScience (http://wesharescience.com) also provides a place to link, share and discuss VAs. The TIB AV-Portal (https://av.tib.eu/) is a reliable, sustainable infrastructure for publishing scientific videos, for example in cooperation with open access publishers such as Copernicus Publications.

Many publishers have published guidelines to help scientists produce their videos abstracts (Plank et al 2017). As an example, the Design Rules of the Institute of Physics (IOP)[4] include the following hints in terms of production:

- A video abstract should not last longer than 4 minutes.
- Inclusion of additional relevant material such as images, animations, and lab footage is strongly encouraged.
- A video abstract must include a soundtrack providing a clear verbal narration of the visual content.

Other publishers like Tayler & Francis also give general design recommendations[5] including: make it short, avoid overload, be natural, be clear and to the point, use images, make sure your audio is clear. Theory Culture & Society[6] and BMJ[7] give similar advice. Sage after al

[1] http://www.cell.com/video
[2] https://figshare.com
[3] https://zenodo.org
[4] https://iopscience.iop.org/journal/1538-3873/page/video-abstract-guidelines
[5] https://authorservices.taylorandfrancis.com/research-impact/creating-a-video-abstract-for-your-research/
[6] https://www.theoryculturesociety.org/video-abstract-guidelines
[7] https://authors.bmj.com/writing-and-formatting/video-abstracts/

complements that a link to the article should be added in the caption[8]. WeShareScience is offering different templates to create a video abstract[9].

Wiley uses step-by-step guides to explain how to produce and publish video abstracts and makes suggestions where and how to share the video abstracts[10]:

- Share it on your social media channels (and ask your department or institution to share it on theirs)
- Include it on your personal website and Kudos publication details
- Include it in a SlideShare about your article
- Use it in conference presentations
- Email it to colleagues and peers
- Send it to your local press office
- Link to it from future grant applications

However in all of these guidelines formal criteria are missing. These should include mention of the authors, the title, a link to the corresponding paper and research data, bibliographical references, licence information and if possible a digital object identifier (DOI).

One portal which is science compliant because the upload process requires formal metadata as well as a licence agreement is the TIB AV-Portal[11]. Additionally, all videos receive a digital object identifier from DataCite. The aim of the portal is the professional hosting and semantic indexing of scientific videos for research purposes. The portal currently provides more than 36,000 (as of October 2021) quality-checked scientific videos, primarily from technology and the natural sciences, under open access, predominantly Creative Commons licenses. These include computer visualizations, learning videos, simulations, experiments, interviews, lecture and conference recordings, and video abstracts - systematically published, for example, as part of a cooperation with Copernicus Publications. In order to ensure the long-term availability as well as the second-by-second referencing of the videos, they are digitally preserved and receive a Digital Object Identifier (DOI) as well as Media Fragment Identifiers (MFID). In addition, various automated analysis procedures are used in the AV-Portal, through which the videos are indexed on a fine-granular and time-based basis: Temporal Segmentation; Keyframe-based Text Recognition (Video OCR); Speech Recognition for the creation of audio transcripts; Annotation with predefined visual concepts; as well as the semantic analysis and differentiated tagging of the video content with subject-specific keywords. With the help of these analysis methods, information and content can be precisely localized using semantic and explorative search functionalities ("facet search"), videos can be searched for content, and relevant video sections can be retrieved with segment precision. Furthermore, the videos in the portal can be searched across languages via a cross-lingual mapping (German-English) of the semantic knowledge base. The metadata is also available as standard CC0-licensed RDF data for subsequent use.

As mentioned, the portal provides standardized metadata for video abstracts, a license statement, and a DOI. However, it does not ensure that scientists cite their paper and research data directly in the VA. Together with following the guidelines, it is up to the scientists to get the most out of their video abstract.

[8] https://us.sagepub.com/sites/default/files/sage_vid eo_abstract-external_guidelines.pdf
[9] https://wesharescience.com/Create-Video-Abstract
[10] https://authorservices.wiley.com/author-resources/Journal-Authors/Promotion/video-abstracts.html
[11] https://av.tib.eu/

Study and Method

In our study[12] we wanted to find out whether the most popular video abstracts on the TIB AV portal follow the common design and publishing rules or not. Our study provides a characterization of video abstracts published on our portal in the areas of Science and Technology. We identified video abstracts based on the number of views. A database of the highest ranked thirty-three videos, from four publishers was created. Each video was manually analyzed for different parameters. Based on a literature review (Ferreira M. et al. 2021, Morcillo et al. 2016) including design rules[13]. We examined some production factors like video length, genre, format and audio - said to have a great impact on the popularity and added some more production and general factors. For example, was the corresponding paper named in the video and linked permanently with a DOI and was the research data visualized in the video?

Formal metrics for each video:

a) Subjects
b) License information (Licence Type e.g. CC BY, CC BY ND)
c) Title / Intro (yes/no)
d) Credit Paper (yes/no)
e) Credit Research Data (yes/no)
f) DOI (yes/no)

Metrics for Design and Production:

g) Visualized research data included (yes/no)
h) Length (1-4 minutes, 4-5 minutes, >5 minutes)
i) Genre (Documentary Style, Animation, Dynamic Presentation, Monologue/Interview, Simple presentation)
j) Additional Elements (Text, Graphics, Animation, Presenters, Interviews, experiment / lab footage, documentary / real life footage)
k) Sound Quality (good, medium, bad, no sound)

[12] Data see: https://doi.org/10.17026/dans-xh6-fama
[13] https://iopscience.iop.org/journal/1538-3873/page/video-abstract-guidelines

Results

Formal Criteria

Subjects

Our subset included nineteen videos from Physics, nine from Earth Science and one each from Informatics, Biology, Information Science, Engineering, Environmental Science.

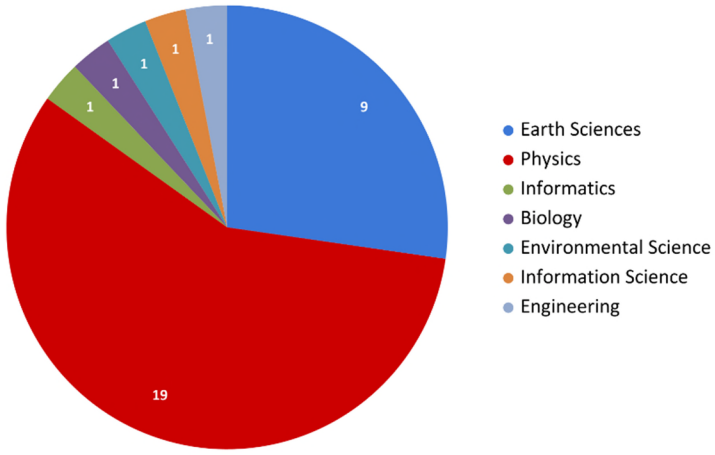

Fig. 1: Subjects (Sample:33)

Licenses

All videos have clear licence information. Nineteen videos were published under CC BY 3.0 DE, twelve under CC BY 3.0 unported, one by CC NC, one CC ND and one CC NC/ND.

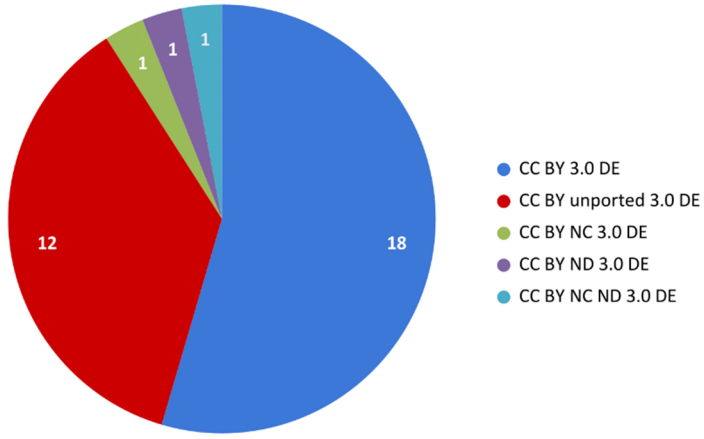

Fig. 2: Licenses (Sample:33)

Intro or Title

Thirty video abstracts had an intro or at least a clear title, three did not.

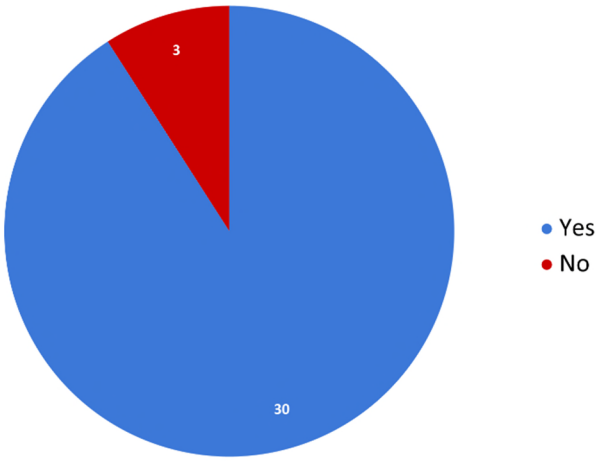

Fig. 3: Intro or Title (Sample:33)

Credit / Paper / Research Data

Only eighteen videos included credits for the paper (either in form of the title or DOI), ten did not have any information or a link to the corresponding paper or article. None of the VA added a link to the underlying research data.

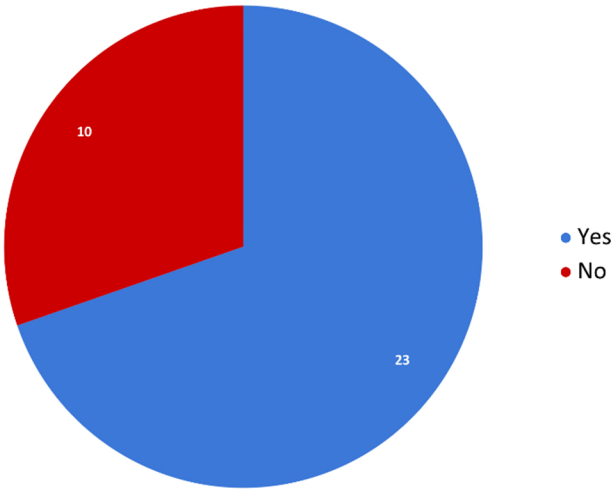

Fig. 4: Credit Paper (Sample:33)

DESIGN FEATURES AND PRODUCTION

Have the authors used scientific data visualizations?

Twenty-five video abstracts included a visualization of their scientific data in the form of models, graphs etc. eight did not make their data visible in their video abstracts.

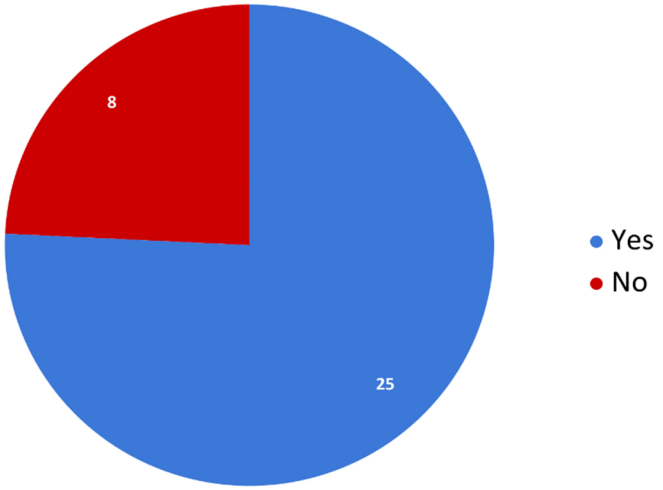

Fig. 5: Scientific Data (Sample:33)

Length

The average length of the video abstracts was 4 minutes.

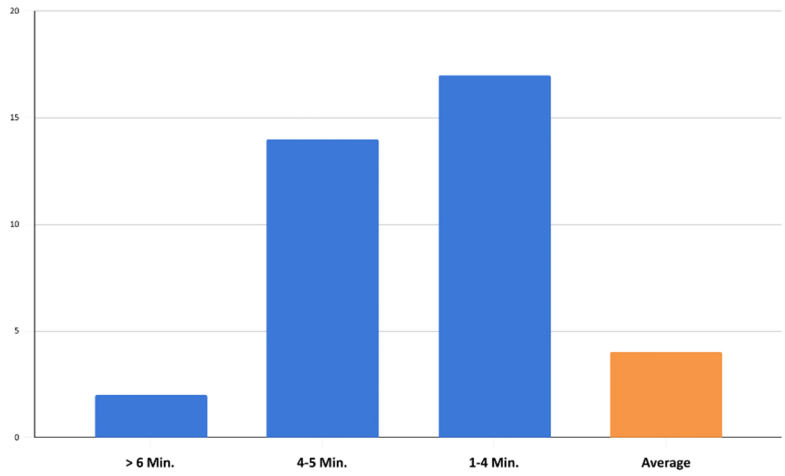

Fig. 6: Length and Average (Sample:33)

Format / Genre

Sixteen VAs used a simple presentation (scenes featuring the authors of the scientific article, category includes all kinds of author(s)'appearance on screen, author(s) talking to the camera, interviews)

Eight used a documentary style (scenes recorded with normal camera, showing the subject of the research acting, footage, reconstruction of experiments, footage demonstrating lab and/or fieldwork

Four used a dynamic presentation. As the name suggests, the focus is on a dynamic style. The authors used several different materials (animation, experiment/observation, documentary/real life, etc.) and made greater use of driving background music. Two videos of that type are under 2:30 min long.

Three used animations (scenes generated with non-linear or analog animation techniques, category includes whiteboard-, stop motion-, 3D-, timelapse animations, as well as screen recordings).

One video abstract was designed in the form of a conversation or interview. The author is interviewed and tells about her research work. In between, scenes of the computer monitor with the open document, the paper, can be seen. The computer monitor was filmed by the camera.

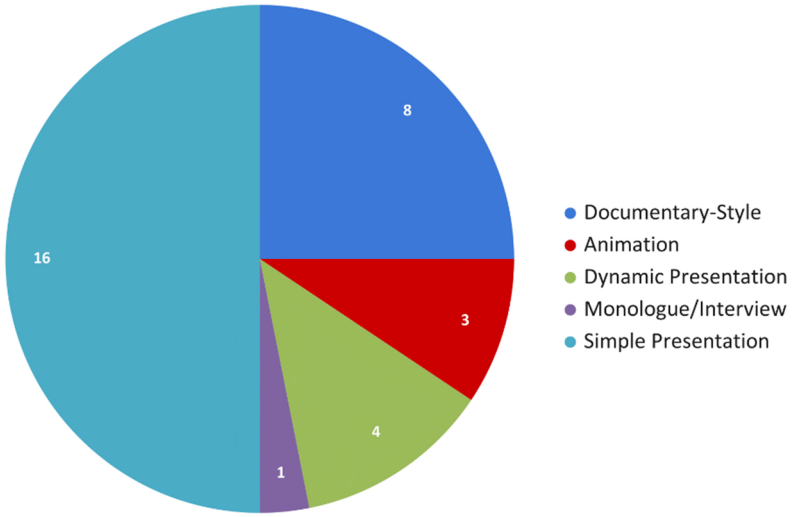

Fig. 7: Format/Genre (Sample:33)

Additional Elements

Additional elements include text (25), graphics / still Images (27), animations (11), scenes featuring authors / presenters (16), interviews / talking heads (16), scenes featuring experiments (8) and documentaries / real life scenes (12).

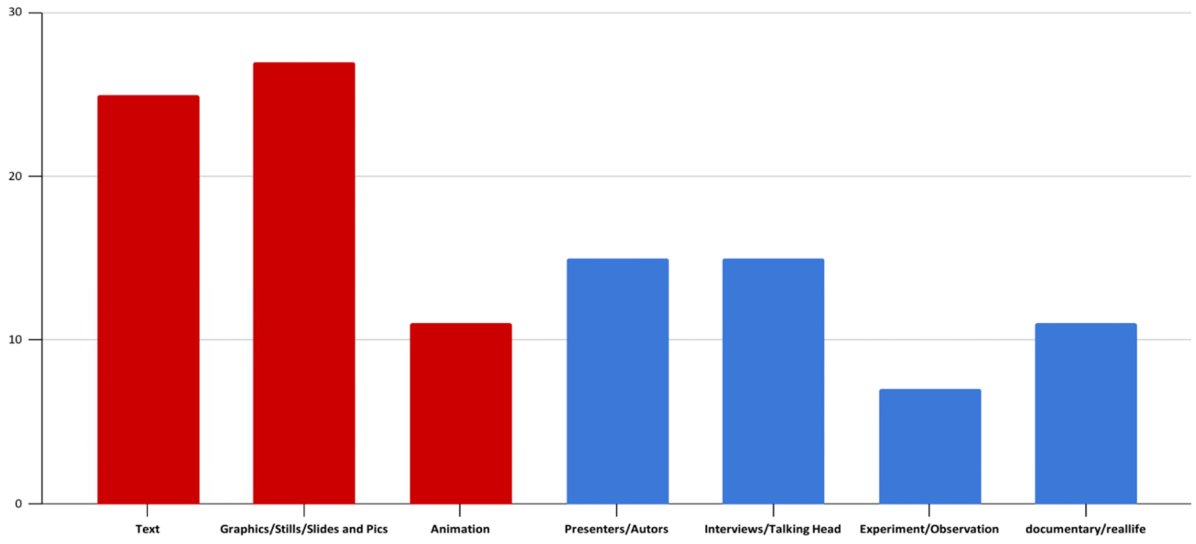

Fig. 8: Additional Elements (Sample:33)

Audio-Quality

Seventeen video abstracts had a good audio quality for the verbal narration, ten a medium, three a bad. Three VA did only use music and not a narration.

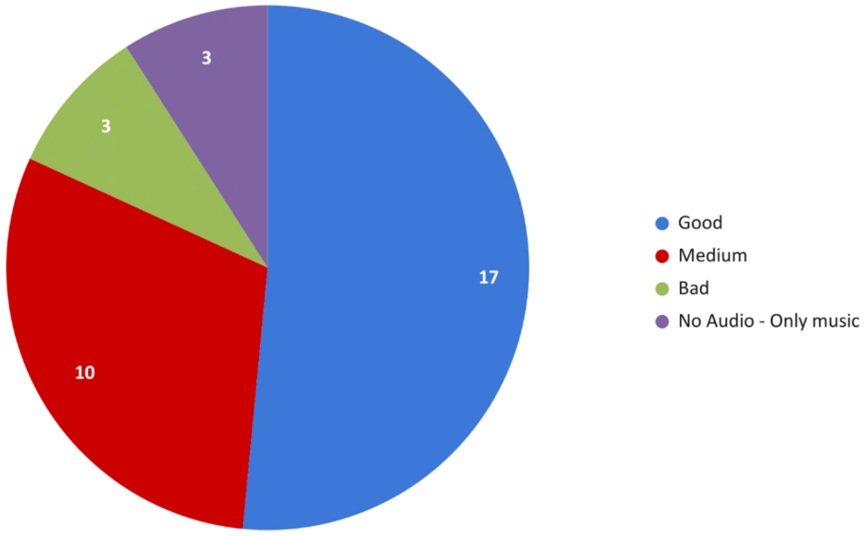

Fig. 9: Audio-Quality (Sample:33)

Conclusion

Since all VAs were published in the science compliant TIB AV portal, all had a DOI, license information, author information, title, publication year, and clear subject attribution in form of metadata.

On average, the videos from our analysis were not longer than 4 minutes (3:55 min.). Most VA did include additional relevant material such as images, animations, and lab or real footage. The majority of the VA entries had medium to good sound quality (82%) and were thus acoustically acceptable. Three videos had no title visible in the video. Most video abstracts used just one presenter/speaker who gave a "classic" simple short-presentation. In these VAs the author is shown on the screen, talking to the camera or giving an interview. Documentary style VAs were the second most common style. These types added animation, experiment/observation, documentary/real life footage and/or background music. Only half of the authors linked to their papers and only three quarters included a visualization of their research data. None of them linked to the underlying research data.

In principle the three major points, which occur in most of the guidelines are followed by the authors. These are:

- A video abstract should not last longer than 4 minutes.
- Inclusion of additional relevant material such as images, animations, and lab footage is strongly encouraged.
- A video abstract must include a soundtrack providing a clear verbal narration of the visual content.

However the results of the study show that there is still a lot of potential in improving video abstracts, especially with regard to formal criteria (e.g. visible title) as well as linking with the according papers and the underlying research data. Strictly speaking video abstracts that do not have a recognizable reference to a scientific article (Credit Paper) cannot be assigned to this genre. Here it would have to be checked whether the video abstract is related to a paper at all. This data, combined with future quantitative and qualitative research, will hopefully provide new insights into the global study of audio-visual communication of science and help the authors

to get more out of their video abstracts. Since we have seen many videos that still have a lot of potential for improvement, we would like to give the following advice to the authors and hope that in the future these will also be taken into account in the guidelines.

- Make sure your VA has a DOI, so that it is sustainably citable
- Make sure your VA has information on the licence for reuse (e.g. Creative Commons[14])
- Make sure your VA includes credits for your paper, best link it via DOI
- Make sure you link to the underlying research data
- Make sure your VA has an Intro and an Outro,
- Make sure you mention all of the authors
- Make sure you share your video on at least one science compliant portal (e.g. TIB AV-Portal), so that it is citable, digitally preserved and connected to research data and paper.

Sample (Research Data)

Full list of video abstracts

Nr.	Title	DOI (Video)
1	Soil lacquer peel DIY: simply capturing beauty	10.5446/40805
2	A system's wave function is uniquely determined by its underlying physical state	10.5446/21893
3	Overview on the open research knowledge graph	10.5446/52261
4	Dynamics of salt intrusion in the Mekong Delta	10.5446/53547
5	TROPOMI measurements and WRF CO modelling to understand extreme air pollution events in India	10.5446/50921
6	Communicating climate change in a 'post-factual' society: Lessons learned from the Pole to Paris campaign	10.5281/zenodo.2662144
7	SPHY-MMF, Coupled Hydrology-Soil Erosion Model	10.5446/37585
8	Transition from electromagnetically induced transparency to Autler–Townes splitting in cold cesium atoms	10.5446/38882
9	A "mental models" approach to the communication of subsurface hydrology and hazards	10.5446/21332
10	Scientific Audiovisual Materials and Linked Open Data	10.5446/17789
11	Magnetically guided multi-coordinate positioning system	10.5446/39650
12	Exciton effective mass enhancement in coupled quantum wells in electric and magnetic fields	10.5446/38806
13	Coulomb blockade model of permeation and selectivity in biological ion channels	10.5446/38744

[14] https://creativecommons.org/

14	Efficiency of the SQUID ratchet driven by external current	10.5446/38751
15	Anderson localization of composite excitations in disordered optomechanical arrays	10.5446/21891
16	Groundwater fluctuations during a debris flow event in Western Norway – triggered by rain and snowmelt	10.5446/53450
17	Spatiotemporal Variability in the Oxidative Potential of Ambient Fine Particulate Matter in Midwestern United States	10.5446/54718
18	Noncommutative correction to the entropy of BTZ black hole based on Lorentzian mass distribution with GUP	10.5446/49798
19	An integrated observation dataset of the hydrological-thermal deformation in permafrost slopes and engineering infrastructure in the Qinghai-Tibet Engineering Corridor	10.5446/53800
20	First Principle of the electronic and optical properties of transition metal dicalcogenide (tmd)	10.5446/49800
21	Feed conversion efficiency in aquaculture: do we measure it correctly?	10.5446/39356
22	On the relative intensity of Poisson's spot	10.5446/38422
23	Voice-Sensitive Regions in the Dog and Human Brain Are Revealed by Comparative fMRI	10.5446/32194
24	Cyclotron and Synchrotron: some applications	10.5446/50119
25	Exploring dispersal barriers using landscape genetic resistance modelling in scarlet macaws of the Peruvian Amazon	10.5446/32196
26	EPR-based ghost imaging using a single-photon-sensitive camera	10.5446/39018
27	The role of edible mushrooms in the green synthesis of CdS quantum dots	10.5446/49858
28	Obtaining the Feynman path integral through the brownian motion description	10.5446/49804
29	Conceptual design of the beam source for the DEMO Neutral Beam Injectors	10.5446/21890
30	Assessing ExxonMobil's climate change communications (1977–2014)	10.5446/39391
31	The search for Bose–Einstein condensation of excitons in Cu2O: exciton-Auger recombination versus biexciton formation	10.5446/38742
32	Structural analysis and phase transition study of the compound Pb(x) Cd(1-x)TiO3: by X-ray diffraction and Raman spectroscopy	10.5446/50261
33	Development of the RFI monitoring application for the BINGO radio telescop site	10.5446/50109

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Grey Literature and Persistent Identifiers: GreyNet's Use Case*

Dominic Farace, GreyNet International
Stefania Biagioni and **Carlo Carlesi**, GreyGuide ISTI-CNR, Italy
Chris Baars, DANS-KNAW, Netherlands

Abstract

The PID (Persistent Identifier) Project is a follow-up to the AccessGrey Project[1] carried out in 2019 in which an online survey was held among stakeholders in GreyNet's community of practice. Recipients were asked their opinions about persistent identifiers and grey literature. The focus now in this project is expanded to include the DOI for research outputs alongside the ORCiD for authors/researchers, and the ROR ID for research organizations. This project seeks to go beyond a straightforward compilation and linking of these PIDs by building the PID Graph and contribute to other PID-Graphs built by service providers like OpenAIRE[2]. In this case, the PID Graph seeks to demonstrate how persistent identifiers can further research in the field of grey literature; and, how they contribute in making research entities conform to the FAIR data principles: Findable, Accessible, Interoperable, and Reusable. PIDs and the PID Graph are also seen to serve in the digital transformation of grey literature and as such will contribute to education and training in this field of information. DataCite Commons[3] used in this project is a web search interface for the PID Graph. The results from queries directed to the PID Graph produced in this project will not only serve as a use case for GreyNet but will also provide a model for other communities of practice in grey literature.

Chapter Outline

1. Background – AccessGrey Project and Persistent Identifiers
2. Components and Data Workflow in GreyNet's PID Project
3. Implementation of the PID Graph
4. Persistent Identifiers and the PID Graph conform to FAIR data principles
5. Some Conclusions drawn from the PID Project

1. Background – AccessGrey Project and Persistent Identifiers[4]

In 2019, an online survey was carried out among GreyNet's community of practice in order to gain their opinions on the uses and applications of persistent identifiers for grey literature. Results from an online survey within the AccessGrey Project clearly indicate a positive opinion about persistent identifiers for grey literature. Emphasis in the AccessGrey Project focused on two of the four collections in the GreyGuide Repository – the GLP Collection of conference papers and the new RGL Collection of multiple grey literature document types. The search of records in the GLP collection enabled formulation of the questions used in the online survey pertaining to persistent identifiers in particular the DOI.

1.1 AccessGrey Questionnaire[5] - 'Persistent Identifiers and Grey Literature'

Q1. Persistent identifiers increase access to grey literature
Q2. Persistent identifiers serve as an incentive in the acquisition of grey literature
Q3. Persistent identifiers increase the citation of grey literature
Q4. Persistent identifiers allow for the preservation of grey literature
Q5. Persistent identifiers are vital in linking and cross-linking data
Q6. A DOI is a quality indicator that increases the value of grey literature
Q7. A repository or data archive that assigns DOIs to metadata records is more likely to attract content providers
Q8. Do you have an ORCiD or another author/researcher unique persistent identifier?
Q9. Does one or more of your publications have an assigned DOI?

* First published in the GL2021 Conference Proceedings, February 2022. - https://doi.org/10.26069/greynet-2022-000.473-gg

Survey Population: 509		Survey Respondents: 56		Survey Results: 11%	
	Strongly Agree	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
Q1	31	19	6	0	0
Q2	17	22	15	2	0
Q3	31	19	5	6	1
Q4	23	23	8	2	0
Q5	33	15	7	1	0
Q6	17	19	13	6	1
Q7	19	26	7	3	1
	Yes	**No**	**Non-Applicable**		
Q8	37	13	6		
Q9	40	9	5		

Table 1: AccessGrey Survey Results

The results of the questionnaire, which constituted the first part of the project, were significantly positive regarding persistent identifiers and grey literature.

1.2. DOI an Incentive for Acquisitions

The results from the second part of the AccessGrey project however did not indicate that the minting of DOIs for research outputs would be a sufficient incentive for their acquisition in a repository, namely one that relies on self-archiving. During that project, new records entered in the RGL (Resources in Grey Literature) collection received a DOI and a system generated citation. However, fewer full-text metadata records were harvested during this part of the project than expected. This perhaps coincides with the response to the survey question (Q2) in which nearly 27% of the respondents were uncertain whether persistent identifiers serve as an incentive in the acquisition of grey literature.

2. Components and Data Workflow in GreyNet's PID Project

A persistent identifier (PID) is a permanent reference and unique label to an object that is independent of the storage location. The unique label ensures that the object can always be found, even if the name of the object or the repository changes. As a result, an object can always be found unambiguously on the basis of its PID. This is important for the long-term storage (archiving) of objects in a rapidly changing world.[6]

In short, PIDs

1. Provide the address of an object such as a landing page in a repository
2. Can be used to link objects and in so doing connect other associated metadata in a record
3. Unambiguously Identify objects even if they move to other systems and services
4. And are computer readable, demonstrating their interconnectedness with other research communities

The value of the PID (persistent identifier) not only provides a link to a digital object be it a person, publication, or organization, but also allows the metadata associated with the digital object to become connected. When that metadata itself is expressed as a PID, this further allows for the creation of a PID Graph that models FAIR data principles: Findable, Accessible, Interoperable, and Reusable. These four principles will be discussed further in the chapter, following the introduction of GreyNet's network service in which they are applied.

2.1 GreyNet International, Grey Literature Network Service[7]

In order to obtain optimal use of persistent identifies a sustained data infrastructure must be in place within a community of practice, one that facilitates a coherent data workflow. It is only then that a PID Graph can be constructed and implemented. In this section, we look at the various components in GreyNet's data infrastructure and then discuss how they are implemented within its workflow. It is Important to mention here that GreyNet's workflow as it applies to this project includes retrospective input.

2.2 Components of the Data Infrastructure integrated in the PID Project

■ **GreyGuide Repository[8] and Portal to Good Practices and Resources in Grey Literature**

GreyNet International collaborated with ISTI-CNR to construct the GreyGuide a web access repository, which would come to house its collections of accepted conference proposals (GLA), published conference papers (GLP) and author-researcher biographical records (BIO). To this end, open-source software was identified and incorporated, metadata templates were created to fit the three document types, and in 2017 these collections were fully online accessible.

■ **OpenDOAR, Directory of Open Access Repositories[9]**

The GreyGuide Repository is registered in the OpenDOAR Directory of Open Access Repositories[10]. It can be mentioned here that while the GLA and BIO collections in the GreyGuide Repository rely on self-archiving, records in the GLP collection are entered by the system manager.

■ **DOI, Digital object identifier[11] and DataCite.org[12]**

In 2018, GreyNet became a DOI minting service within DataCite and began assigning DOIs to its collection of Conference Papers in the GreyGuide Repository. Since it is this collection upon which our PID Project is based, the ORCiD and ROR IDs had to be included in the DOI records in order later construct the PID Graph and be part of other PID Graphs (e.g., DataCite Commons, OpenAIRE).

■ **ORCiD, Open Researcher and Contributor ID[13]**

Also, in that same year, ORCiDs were included in biographical records in the GreyGuide; and, an active campaign among GreyNet's author's and researchers was initiated – encouraging them to register an ORCiD if they did not yet have one. In order to facilitate this, a link to the ORCiD registry was provided[14].

■ **ROR, Research Organization Registry ID[15]**

In 2020 the ROR ID for research organizations was added as a metadata field in BIO records in the GreyGuide. By way of a search in the ROR Registry, ROR IDs of organizations could be online accessed and included in the records of those authors and researchers, whose conference papers are archived in the GLP collection as well as in their corresponding DOI records in DataCite. GreyNet has since applied for a ROR ID and awaits its assignment. A ROR ID unlike an ORCiD is not assigned separately but rather in interval batch-releases, once new records have been approved.

It is worthwhile to note that the ROR ID of an organization linked with a research output such as a conference paper or other grey literature document type might be perceived as a quality indicator. If we look back to question (Q6) in the AccessGrey Survey, over 23% of the respondents were uncertain whether the DOI is a quality indicator that increases the value of grey literature. However, if DOIs were connected to their corresponding ORCiD and ROR IDs, there might be less uncertainty.

2.3 The Data Workflow implemented in the PID Project

Our PID Project team was formed bringing together human resources and expertise needed, namely the system management and development of the GreyGuide Repository; the communication and network management of the GreyNet Community, and the acquired

knowledge and experience of the PID Graph. From early January 2021 through the first week of March 2021, GreyNet undertook three tasks integral to the PID Project.

First, to complete minting DOIs for its collection of conference papers in the GL-Series including those published in 2021. The collection now totals 443 conference papers with DOIs in DataCite that accounts for the population of our project. Other service providers, namely DANS EASY[16] for GreyNet's published datasets and the TIB AV Portal[17] for its conference video presentations also have assigned DOIs in DataCite; however, these are not included in the population of the project.

The **second** task that ran parallel with the first was the retrospective search and retrieval of ORCiD and ROR IDs that were added to both the DOI metadata records and their respective BIO records in the GreyGuide Repository. The retrospective task also included the input of biographical records on behalf of authors and researchers whose names appear in the GLP collection, but who had not yet submitted a BIO record. This was accomplished in part by retrieving biographical notes from previous conferences in the GL-Series preserved in GreyNet's inhouse archive and partly via Google searches.

A **third** ongoing task dealt with records that needed some modification in order to benefit the PID Project, such as
(1) An existing ORCiD in a record carries 16 digits but is not proceeded by [https://orcid.org/] and as such is not actionable; (2) An ORCiD is retrieved only to find the message 'No public information available', which makes it difficult if not impossible to confirm the identity of the author/researcher; and (3) When an author or researcher's organization is absent or unclear in a record, it becomes difficult or is not possible to assign a ROR ID using the ROR Registry.
While these and other such problems were few in number, the time required to correct them was disproportionate. Nevertheless, when a system and service rely on self-archiving and when a persistent identifier such as the ORCiD can only be acquired by the author-researcher – him or herself, then these tasks must be calculated in the workflow.

2.4 Compilation of Actionable Persistent Identifiers

Now that the complete collection of conference papers in the GL-Series has an assigned a DOI in DataCite, which incorporates their corresponding ORCiD and ROR IDs, the number of actionable persistent identifiers for our project is accounted for. And, this then allows for the construction of the PID Graph.

Conference Papers	Authors-Researchers	Research Organizations
GLP Collection: 443	BIO Collection: 238	BIO Collection: 238
443	146	180
100%	61.3%	75.6%

Table 2: Actionable PIDs compiled in the Project (as of *March 13, 2021*)

3. Implementation of the PID Graph

In an article published in early January 2021, GreyNet's attention was drawn to the benefits of connecting the various types of persistent identifiers in producing a PID Graph[18]. For our project, this includes the DOI, ORCiD, and ROR ID. It is expected that this PID infrastructure would further demonstrate the value of persistent identifiers and open the potential for more research - in our case, research in the field of grey literature.

To construct the PID Graph two elements are required:

(1) backend services that collect PID connections in a standardized way focusing on two PIDs that are connected. This is essentially building the elements of the graph;

(2) query interfaces that combine these connections with PID metadata. A technology that is highly suitable is GraphQL[19]. GraphQL is an open-source data query and manipulation language for APIs, and a runtime for fulfilling queries with existing data. This widely adopted query language provides a standardized interface that can be federated, making it easier to build client applications for the PID Graph. Applications built on top of the PID Graph allow users to explore the rich connections between PIDs and to address specific use cases. The PID Graph demonstrates that we can gain more from PIDs when we look at their connections – indicating that the sum is more than its parts.

3.1 Examples of the PID Graph

Below are examples of four PID Graphs drawn from GreyNet's store of persistent identifiers. Each graph is comprised of multiple resources (nodes) that are connected by lines (edges). In the first diagram, the PID Graph appears in horizontal format and depicts from a DOI perspective three publications connected with the authors and their respective organizations. In the second diagram, the PID Graph appears in cluster format and depicts from a DOI perspective the same three publications as in the first diagram; however, now they are connected with the authors' names and their respective organizations. In the third diagram, the PID Graph depicts from an ORCiD perspective an author and his respective organization linked to seven publications. One of the publications is further linked to three co-authors of whom only one organization is shown. And, in the fourth diagram, from a ROR ID perspective – a research organization is encircled and linked to a cluster of publications that is further encircled and linked to a number of authors. Three of the authors appear also linked to their own respective organization.

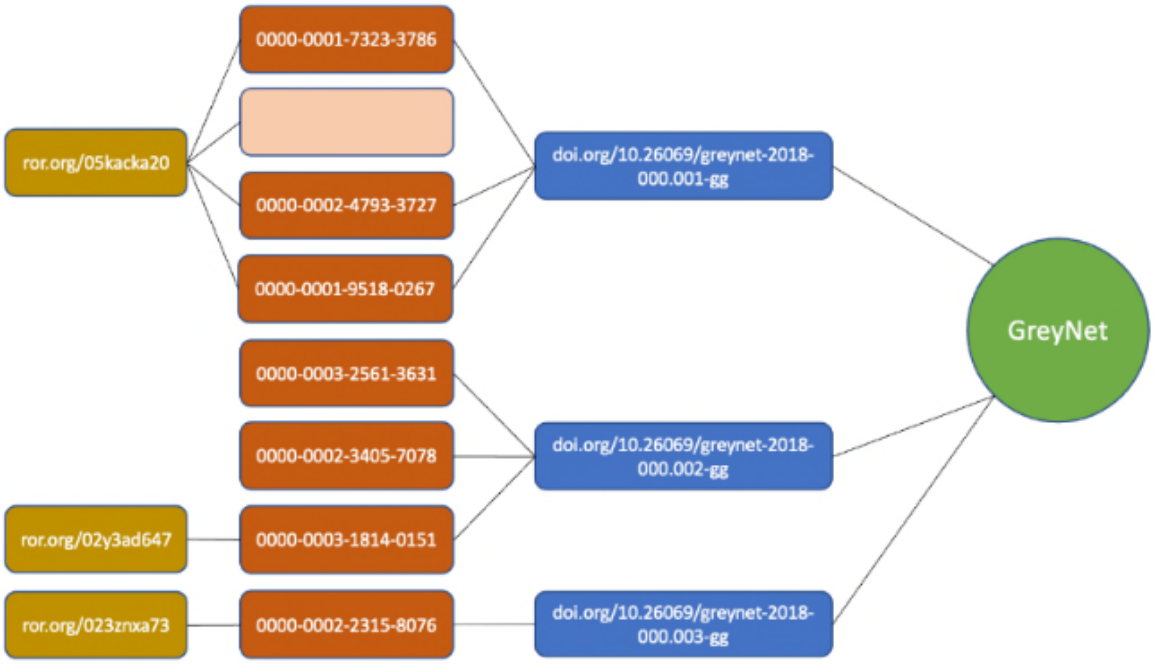

Diagram 1: PID Graph from a DOI perspective in horizontal format

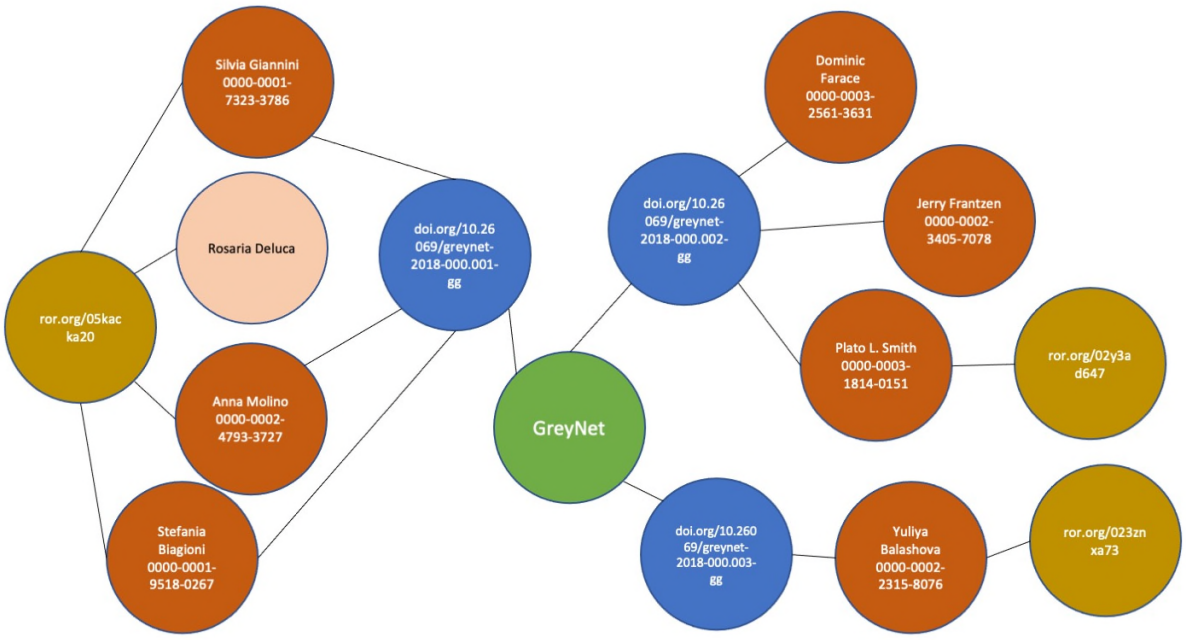

Diagram 2: PID Graph from a DOI perspective in cluster format

Diagram 3: PID Graph from an ORCiD perspective in cluster format

Diagram 4: PID Graph from a ROR ID perspective in cluster format

In the PID Graph, persistent identifiers are themselves the basic entities that are linked together; whatever they refer to is left implicit. This approach requires that the PID metadata are sufficiently rich to represent the relationships of interest and that the PIDs are of high enough quality. The advantage is that it becomes much easier to create graphs and to implement and scale rather than working with concepts and knowledge extraction.

4. PIDs and the PID Graph in relation to FAIR data principles

PIDs themselves allow for the guarantee of interconnected services from minting to linking onto access and preservation. When these services are situated in the workflow of a mature community of practice, they create a FAIR research environment.

[An extract abridged and revised from 'Connected Research: The Potential of the PID Graph'][20]

PIDs contribute in making research entities conform to the FAIR data principles; Findable, Accessible, Interoperable, and Reusable. By way of the PID Graph connections between different entities within the research landscape allow researchers to access new information. PIDs also play a role in the reusability of data by enabling rich metadata and their provenance to be associated with a digital object. PIDs provide the possibility to link entities long-term and enable information exchange by identifying persons and organizations over different services.

The overall PID infrastructure is made up of PID service providers, repositories, curation systems, aggregators, indexes, metadata, standards, and people. PIDs connect all of these elements, not only technically, via metadata and integrations, but also socially, via communities that have formed over decades or longer. The table below identifies the various types of PIDs and the maturity of their infrastructure. Since 2018, the ROR ID has moved from an emerging entity to a mature one.

Research Entity	PID Types Used	Maturity of PID Infrastructure
Publication	DOI, accession number, handle, URN, Scopus EID, Web of Science UID, PMID, PMC, arXiv identifier, BibCode, ISSN, ISBN, PURL	mature
Citation	OCI (secondary aggregation of information)	emerging
Conference	DOI, accession number	emerging
Researcher (or scholar)	ORCID IDs, ISNI (also DAIs, VIAFs, arXivIDs, OpenIDs, ResearcherIDs, ScopusIDs)	mature
Organization	DOI, ISNI, GRID, Ringgold IDs, ROR IDs	emerging
Data	DOI, accession number, handle, PURL, URN, ARK	mature

Table 3: PID Types and Infrastructure Maturity

GreyNet International now in its 28th year can be considered a mature research community socially. By including PIDs for objects, projects, persons, and organizations in the metadata, the technical maturity of GreyNet's infrastructure can now likewise be demonstrated. As a result of this ① sustainable connections can be made ② objects, projects, persons, and organizations become computer readable and understandable by other services like DataCite and OpenAIRE ③ A PID-Graph can be created and GreyNet information can also become part of other PID-graphs ④ Other services, like OpenAIRE PID-Graph and DataCite Commons[21] can be used to query or for purposes of analysis, and ⑤ It is a demonstration of FAIR-principles for grey literature. To include and expand on the FAIR principles, PIDs and metadata help ensure that the entities they refer to are

- usable and citable: pointing directly to an object, such as a specific item or a specific version of a dataset; hence increasing the usability of that object for researchers. It also helps them formally cite research outputs such as data and resources, which in turn facilitates reuse and helps increase recognition.
- Assessable: PIDs enable reliable measurement and prediction of impact, facilitating a more strategic approach to investment, driving maximum benefit, and ensuring that valuable resources are sustained.

5. Some Conclusions Drawn from the PID Project

Research in the field of grey literature will likely increase due to the incorporation and use of persistent identifiers. PIDs like other rich metadata can be counted and cross tabulated, enabling researchers to examine relationships in and among diverse types of data. As such, PIDs are actionable and can be used for new research. Furthermore, PIDs and the PID Graph can be seen not only to serve research in grey literature but also extend to new services in areas of education and training.

PIDs and the PID Graph are shown to have real value in defining GreyNet's position as a mature research organization by sustaining and leveraging its resources, by adhering to the FAIR data principles, and by signaling increased trust in grey literature beyond its own community of practice.

While the minting of a DOI was not of itself a sufficient selling point in the earlier AccessGrey Project for attracting content to a repository, the DOI now linked to the ORCiD and ROR IDs illustrated by the PID Graph may prove more effective. Also, while the AccessGrey Project laid the groundwork and direction for this PID Project, it is our understanding that implementation of the PID Graph will go even further to provide a new strategy and approach to research in the field of grey literature.

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[19] https://graphql.org
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Selected Resources

Introducing the PID Graph
https://www.project-freya.eu/en/blogs/blogs/the-pid-graph
The FREYA project
https://www.project-freya.eu/en
Connected Research: The Potential of the PID Graph
https://www.cell.com/patterns/pdf/S2666-3899(20)30244-0.pdf
The power of PIDs: Using persistent identifiers to link research outputs in the Netherlands
https://www.dpconline.org/blog/the-power-of-pids
NARCIS enriched with the first results of a PID-Graph
https://dans.knaw.nl/en/current/news/narcis-enriched-with-the-first-results-of-the-pid-graph
AccessGrey: Securing Open Access to Grey Literature for Science and Society
http://greyguiderep.isti.cnr.it/linkdoc.php?idcode=2020-GL21-007&authority=GreyGuide&collection=GLP&&langver=en
AccessGrey Online Questionnaire
file:///C:/Users/GreyNet/Downloads/Survey%20Results%20(Anonymous)%20(4).pdf
Data from "AccessGrey: Securing Open Access to Grey Literature for Science and Society"
http://greyguiderep.isti.cnr.it/linkdoc.php?idcode=2020-RGL01-002&authority=GreyGuide&collection=RGL&&langver=en

The relation between the grey literature and the Organic Law 2012 on information in Algeria

Nadia Smaili, Department of Library Science
Djilali Bounaama Khemis Miliana University (Algeria)

Abstract
Laws and reforms aimed at information's exercise and activity to satisfy the information users as well as to protect the media industry through laws that upgrade progress in all domains including; scientific, technical and technological fields.
What we consider useful is to draw attention to information unallocated to the grey literature.
Keywords: Grey literature, The Information Law 1982- 1990- 2012; grey literature; Algeria; The grey literature and the organic law on information.

1. Preamble

We come with this analysis of the law No. 12-05 of 18 safar 1433 corresponding to January 12th, 2012 relating to information, to indicate for the legal committee's officials of parliament as well as to the legal advisers of Algerian universities the difficulties and disabilities encountered by most Algerian researchers in the accessing to information contained in grey literature documents.

Our contribution aims, as preliminary, to anticipate the problems that would hinder "The act of research in general".

Our interference is based on a reality experienced by those involved in scientific production of all categories whatever their status are public or private. This reality consists in the disregard of grey literature by state institutions, which considerably induces to its ignorance in the development of information laws. This ignorance or oversight which is accomplished in a certain way in the clauses of the above - mentioned laws which have not provide any mention or article on scientific and academic information contained in grey literature documents.

And in that capacity, we are thinking to submit to the legal officials our concern with regard to the management and accessibility of information plus its outreach to the large audience.

Our action is part of the framework of "**the guarantee of management act of grey literature"** as well as **"the act of scientific research"** which bring to it a guarantee through a legal text that reflects a release and a reinforcement of research, in general. The one is inseparable from the other, it aims to make the **"Employment Relationship"** of potential research participants, more flexible and less restrictive supported by introducing grey literature into research mores and the efforts made to meet the needs of government sectors for projects along with the attempt to find answers to them at lower cost.

This state of mind, was our first motivation for the appreciation of the organic law of 2012 which we tried according to our means of interpretation to analyze, in order to find some answer elements and to contribute with some proposals in projection.

2. Projection of proposals

The draft revision of the 2012 information law must find support in the Algerian scientific community by opening an extensive debate on grey literature in order to make it visible, workable and enriched by their work.

Contributing to the revision or the rethinking of the 2012 law texts; this revised and redesigned project is based on "the complement" or "the addition" to the current texts which supposed to clarify the situation of the "objects" provided for in this law, namely: media, periodicals, and regulatory authorities. Grey literature, being a typical sample of information which affects all

sectors of a citizen's life, must find a successful follow-up to its introduction into scientific spheres through a text.

We are looking here to find answers to what concerns us most, namely: the management, the exercise of activities, the structures, the modern tools, the methods of identifications and their unifications, the canals and networks that allow its accessibility, as well as the connectivity speeds allowing real-time fluidity of access to information.

In terms of the information diffusion from grey literature, it is necessary to point out their peculiarities and their specificities which do not concern media and other media support. This specificity and peculiarity can be distinguished in a comprehensive way in three registers, and it takes place at the information level that can be identify in three categories:

1 / sensitive information (related to sovereignty).

2 / mildly sensitive information (accessible in time).

3 / non-sensitive information, which represents the crucible of scientific and academic research.

It is within this legitimate framework that we want this revision, while providing proposals that can support any approach in this direction.

3. Global analysis

Law No. 12-05 of 18 safar 1433 corresponding to January 12th, 2012 relating to information as well as that of 07/90 concerning the media sectors (public / private), rights regulation, journalists obligations in order **to improve the working conditions and relations** with state authorities as well as the respect of the procedures inherent in each organism that disseminate information. It also identifies the profiles that lay with those officials authorized to produce the information content, the procedures dedicated to information assurance, and the diffusion canals oriented towards the Algerian citizen at the national and international level. Moreover it provides the penalties resulting from the non-compliance of articles affronts judicially.

4. Analysis and interpretation

The law of 2012 and its relation to grey literature as a subject of information

At the level of its exploitation, according to interpretation, the 2012 law does not offer any possibility of insertion or articles which **could introduce in fact assurance** to the information that the grey literature conveys and acquires through scientific and governmental productions.

In view of its content, its scope of action is limited, it focuses only on the media and other information products. There are no clues or open tracks that enable to broaden in information scope in this new subject.

This proves **the ignorance of that last by the Algerian scholar**. This observation does not reveal that no "relationship" exists between the law of 2012 and the productions of grey literature whose scope of intervention is not only broader but also more exhaustive and it affects all sectors of State and government. **Therefore, that is a question of reviewing and rethinking the law of 2012 in order to fill the judicial gap concerning the information contained in grey literature documents.**

It is also a question of rethinking about **"Employment Relationship"** with the performers and producers of grey literature at all levels: universities, research institutes, colleges, and research laboratories. All these grey literature producing entities exist in both domains (public and private).

How to understand the future of grey literature information (which is also a major problem), on account that thereon is most often diffused according to an itinerary and underground canal, unconventional, outside the systems of the publishing and distribution, recognized and official.

5. Project Proposals

In order to ensure this exceptional feature that the grey literature assumes, it is possible for managers of each sector to take internal measures to try to fill the judicial gap; the use of internal measures allows a faster anticipation in order to establish a platform which would cover and fill the judicial gap.

This is to ensure the employment relationship, which is without juridical coverage, can be interrupted at any moment due to the absence of internal measures or clauses relating thereto by those responsible.

The requested clauses must be in support with the concerned sectors by grey literature and also researchers affiliated with their public and private institutions. It should allow lectures - researchers to find all the help necessary to conduct their research projects through state canals established in alignment with the legal texts **which would have a role in facilitating access to information.**

We are convinced that the organic law of 2012, if it occurs that it is revised and rethought under a **"new paradigm"** that shall we call "**the information landscape**", would not risk going unnoticed, particularly by lecturers- researchers who have been quietly claiming for years the provision of grey literature documents and also taking action with access to information concerning their content.

Grey literature currently located in an "area" not yet undetermined compared to classical literature, the media and other information products. Its course remains opaque, although it is used by researchers in all categories. It lies between formal and legal within the intramural research framework of the above-mentioned entities and unofficial at the level of administrations and other state bodies.

All this slows down the productive forces of knowledge and science, this characteristic of "non-conventional associated with the production of grey literature", slows down and creates massive difficulties as regards to the collection, the process and the diffusion; not only at the inter-university level, but also to a large audience, because there are performers who are not affiliated with any entity.

The role of the law, as a result of its revision and reconsidering, must be able to strengthen the employment relationship so that there is worthy production to the new challenges facing the country in terms of durable development. In return, it must allow the potential performers of grey literature to benefit from the others experiences, in order to forge exchange and sharing relationships of data without limitation.

The guidelines of exchanges, sharing, partnership and cooperation can only be established if they go through a legal framework in which the statements must reflect "a clarification regarding the act of research" which wants to free from the bureaucratic fetters.

6. Elements to clarify

For a good development and a clear activity exercise concerning the information process of grey literature, we are seeking intervention on the following points:

A. Its identity
B. Its definition
C. Its exploitation according to the modalities: sensitive, mildly sensitive and non-sensitive
D. Its process
E. Its canal
F. Its edition
G. its diffusion
H. Its Standardization
I. Cooperation at national and international level through international twinning agreements and partnership with academies, libraries and organizations having similar criteria with the institutions and authorities of the country.

7. ITEMS IN QUESTION: Establishing a clause for grey literature

In order to find answers to 6th paragraph concerning the elements to clarify, we assess the results of the congresses for a better apprehension and a more or less approximate understanding of grey literature, so that we submit for the evaluation of the Algerian scholar definitions adopted at the following three congresses:

- The 3rd International Conference on grey literature in 1997.

- The 6th International Conference on grey literature in 2004 in New York.

- The 12th International Conference on Grey Literature in December, 6th and 7th, 2010.

The most well known of these definitions is the so-called "of Luxembourg" approved at the third international conference in 1997; "Grey literature is what is produced by all levels of the government, education and public research, commerce and industry, in paper or digital format which are not controlled by Commercial edition"[1]. A few years later, in 2004, the New York conference clarified that this definition included (also) the publishers "where publication is not the main activity".[2]

Today, the New York definition is generally accepted and serves as a reference. However, the majority of professionals and researchers agree that it requires a revision. To find out more, a survey of 108 professionals and researchers from the international Grey net[3] network was done, in addition to an analytical study on the New York definition. The results were presented at the end of 2010 in Prague, together with the proposal for a new "Prague definition" (Schöpfel, 2010).[4]

The new definition of "Grey literature represents any type of document produced by government, administration, education and research, commerce and industry, in paper or digital format protected by intellectual property rights, of a sufficient quality to be collected and preserved by a library or institutional archive which is not controlled by commercial edition."[5]

8. THE PROPOSAL PURPOSE

Our proposal aims to: the submission of a review of the clauses governing the activity of information in general and its diffusion in a broad sense, in order to allow certain categories of information not covered by the organic law of 2012, to find a space facilitating their rapid introduction. This requires taking into account the paradigm of the broader concept "information landscape". Reconsidering the information landscape in order to open up a legal space for this new subject, namely: "**grey literature**".

This is the introduction of a new subject called **GREY LITERATURE** whose information contained in its documents is of an extremely scientific and academic nature that the law cited above did not provide due to the jurist's ignorance, because it does not exist yet *in our **information landscape***.

The law of 2012 intends to set the principles and the rules of practicing the right to information as well as the press freedom. From this legal introductory, it is heard and well understood that the law is restricted to two objects; the right to information which interests **citizens** and their satisfaction on the subject as well as the *freedom of **the press*** through the media which must ensure by natural and legal persons in general. The course of the clauses governing the activities

[1] Third International Conference on Grey Literature: Perspectives on the Design and Transfer of Scientific and Technical Information. Luxemburg, 13-14 November 1997

[2] Sixth International Conference on Grey Literature: Work on Grey in Progress. New York, 6-7 December 2004.

[3] http://www.greynet.org/

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[5] Twelfth International Conference on Grey Literature: Transparency in Grey Literature. Grey Tech Approaches to High Tech Issues. Prague, 6-7 December 2010.

and their exercises in addition to the arrangements inherent in them do not allow us to glimpse some answers elements to our questioning as well as to our query. **This law does not satisfy the information landscape in view of its restrictive principles and rules oriented solely towards these two objects.**

The adopted approach is based on the observation of texts according to the critical interpretive method.

The review of the law texts allowed us to draw the first observation:

We encountered the absence of clauses which can with some effort and imagination to find solutions. These clauses present closed conditions and express themselves intrinsically and widely on the media according to the two known forms: public / private media and specialized journals which both fit within a conventional framework, and follow a legal itinerary and canal. This is not the case with grey literature, which cannot establish itself as such media or such journal for which a law has been provided for, because it acts outside conventional circuits.

Whereas we have not found any link or connection through the clauses concerning *the improvement of working conditions in an organized framework, and to guarantee to the structures activating within the framework of the grey literature a legal cover, then we recommend two axes that can be consulted*.

9. AXES OF REFLECTION

The two selected axes are presented as follows:

The first axe of reflection interacts with the texts that govern the "activity" and "diffusion" of information which are dominant; they are a vital exercise for a better establishing of the environment, which is “organization”, they represent the beginning and the end. This tends towards the revision of: the clauses concerning the insurance of the activity (the procedural framework), the diffusion of information from grey literature (ways and means), as well as the establishment and the application of the new information and communication technologies that we consider as an essential logistics.

Remark

Bearing in mind that certain measures with regard to internal organization can be taken at the level of each sector of the state and also the denomination of the structures devoted to grey literature (as we propose in our thesis for the sector of scientific research at our University "Algiers-2": a unit dedicated solely to grey literature. It is interesting to discuss it with those in charge.

The second axe of reflection is an item included in our recommendations for a possible creation of a national authority responsible for the management and standardization of grey literature information on all levels**.**

10. CONCLUSION

The revision of the law of 2012 should allow and facilitate the establishment of a roadmap which an organization gives to itself, it concerns universities, research laboratories, institutes, higher schools that are acting under the public and private modes, to achieve the medium and the long-term objectives in terms of performing the activities of collecting, processing and diffusion grey literature information.

The review will also aim to examine internal and external contexts, so that producers of grey literature can project into the future without juridical constraints. Further to be able to determine the strategies to achieve the mission and the review of the organization of their planning and operating objectives.

Any prospecting for information in grey literature and its large-scale diffusion must be covered and guaranteed by a law reflecting the expectations of the scientific community in terms of access and diffusion.

Without this law that govern the activity, the organization, and diffusion of information from grey literature in the world of knowledge will continue to work in a vacuum.

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7) Sixth International Conference on Grey Literature: Work on Grey in Progress. New York, 6-7 December 2004.
8) Grey literature Network Service http://www.greynet.org/

Note

Our research project within the framework of a doctoral thesis is entitled "The contribution in the support and facilitating access to grey literature: University of Algiers 2 case study".

The ISTI Library was founded in 1954. Since 2000 is part of the Library Service and Scientific Documentation Centre of the CNR Research Area in Pisa.
The Library works to support the research activities and the researchers. The staff takes care of and enhances the bibliographic and documentary heritage of ISTI and the other institutes belonging to the CNR Research Area.

The Library is involved in the fields of Grey Literature (GL), Digital Libraries, and institutional archives. The Library subscribes and promotes the principles and actions of the Open Science community, giving information about national and international initiatives and managing services for the institutes located in the Area and the interested authors.

The Library staff manages the ISTI scientific production and supports the authors in the research assessment procedures.

The descriptions of ISTI laboratories research activities are extracted from ISTI laboratories brochures. Other info are available here.

NETWORKING

WIRELESS NETWORKS (WN)

THE WIRELESS NETWORK (WN) LAB MISSION IS TO INVESTIGATE, DEVELOP AND PROTOTYPE INNOVATIVE SOLUTIONS IN CYBER-PHYSICAL SYSTEMS FIELD, BUT THE DEVELOPED TECHNOLOGIES HAVE MUCH WIDER APPLICATION OPPORTUNITIES. WN LAB FOCUS HIS WORK IN THE DESIGN OF NEW ALGORITHMS AND TOOLS RANGING FROM THE SMART CITIES TO INTELLIGENT TRANSPORTATION SYSTEMS, AND FROM AMBIENT ASSISTED LIVING SYSTEMS TO MONITORING SYSTEMS.

SOFTWARE

FORMAL METHODS AND TOOLS (FMT)

THE FORMAL METHODS AND TOOLS (FMT) LAB HAS LONGSTANDING EXPERIENCE IN THE DEVELOPMENT AND APPLICATION OF FORMAL NOTATIONS, METHODS, AND SOFTWARE SUPPORT TOOLS FOR THE SPECIFICATION, DESIGN, AND VERIFICATION OF COMPLEX SYSTEMS. THE FMT LAB IS ALSO ACTIVE IN REQUIREMENTS ENGINEERING AND IN VARIOUS BRANCHES OF SOFTWARE ENGINEERING, AND IN THE AREAS OF COMPUTER ETHICS AND INFORMATION TECHNOLOGY AND SOCIETY.

SOFTWARE, ENGINEERING & DEPENDABLE COMPUTING (SEDC)

THE SOFTWARE ENGINEERING AND DEPENDABLE COMPUTING (SEDC) LAB DEVELOPS NOVEL INTEGRATED METHODOLOGIES, ROOTED ON THE SYNERGY BETWEEN SOFTWARE ENGINEERING AND DEPENDABLE COMPUTING DISCIPLINES, TO FACE THE CONTINUOUS EVOLUTION AND RISING CRITICALITY OF SOFTWARE-INTENSIVE SYSTEMS.

SYSTEM AND SOFTWARE EVALUATION (SSE)

THE SYSTEM AND SOFTWARE EVALUATION CENTER (SSE) LAB PERFORMS THIRD-PARTY EVALUATION AND CERTIFICATION OF PROCESSES AND PRODUCTS IN THE AREA OF INFORMATIONTECHNOLOGY, ACCORDING TO GIVEN REQUIREMENTS AND STANDARDS TO MEET THE NEEDS OF USERS, INDUSTRY AND PUBLIC ADMINISTRATION. INDUSTRIAL CHALLENGES, DEMANDS AND NEEDS IN SYSTEM AND SOFTWARE DEVELOPMENT PROCESSES, ARE THE DRIVERS OF THE SSEC RESEARCH ACTIVITY.

KNOWLEDGE

ARTIFICIAL INTELLIGENCE FOR MEDIA AND HUMANITIES (AIMH)

THE ARTIFICIAL INTELLIGENCE FOR MEDIA AND HUMANITIES (AIMH) LAB HAS THE MISSION TO INVESTIGATE AND ADVANCE THE STATE OF THE ART IN THE ARTIFICIAL INTELLIGENCE FIELD, SPECIFICALLY ADDRESSING APPLICATIONS TO DIGITAL MEDIA AND DIGITAL HUMANITIES, AND TAKING ALSO INTO ACCOUNT ISSUES RELATED TO SCALABILITY.

HUMAN INTERFACES IN INFORMATION SYSTEMS (HIIS)

THE HUMAN INTERFACES IN INFORMATION SYSTEMS (HIIS) LAB RESEARCH ACTIVITY AIMS TO ADDRESS FUNDAMENTAL QUESTIONS ON THE INTERACTION BETWEEN PEOPLE AND TECHNOLOGIES AND FOCUSES ON METHODS AND TOOLS TO SUPPORT USER INTERFACE DESIGNERS, SOFTWARE DEVELOPERS, AND END USERS IN OBTAINING SYSTEMS THAT CAN BE ACCESSED FROM ANY CONTEXT OF USE IN SUCH A WAY TO IMPROVE USABILITY, ACCESSIBILITY, AND USER EXPERIENCE.

INFRASTRUCTURES FOR SCIENCE (INFRASCIENCE)

THE INFRASTRUCTURES FOR SCIENCE (INFRASCIENCE) LAB MISSION IS TO CONTRIBUTE TO THE EVOLUTION OF SCIENCE PRACTICES BY INVESTIGATING, EXPERIMENTING, AND CLOSELY CONNECTING RESEARCH AND DEVELOPMENT OF INNOVATIVE DIGITAL INFRASTRUCTURES, INFORMATION SYSTEMS, AND SMART SOLUTIONS FOR FOSTERING AND EMPOWERING DATA-CENTERED RESEARCH.

KNOWLEDGE DISCOVERY AND DATA MINING (KDD)

THE KNOWLEDGE DISCOVERY AND DATA MINING (KDD) LAB IS A JOINT RESEARCH INITIATIVE OF ISTI INSTITUTE OF CNR AND THE DEPARTMENT OF COMPUTER SCIENCE OF THE UNIVERSITY OF PISA. THE OBJECTIVE OF THERE SEARCH UNIT IS THE DEVELOPMENT OF THEORY, TECHNIQUES AND SYSTEMS FOR EXTRACTING AND DELIVERINGUSEFUL KNOWLEDGE OUT OF LARGE MASSES OF DATA.

HIGH PERFORMANCE COMPUTING

HIGH PERFORMANCE COMPUTING (HPC)

THE HIGH PERFORMANCE COMPUTING (HPC) LAB CARRIES OUT RESEARCH ON INFORMATION INDEXING AND RETRIEVAL, LARGE-SCALE DISTRIBUTED/CLOUD SYSTEMS, BIG DATA ANALYTICS, MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE, MOBILITY ANALYSIS AND SEMANTIC ENRICHMENT.

VISUAL

SIGNALS AND IMAGES (SI)

THE SIGNALS & IMAGES (SI) LAB GOAL IS TO INCREASE THE KNOWLEDGE IN THE FIELDS OF SIGNAL PROCESSING, IMAGE UNDERSTANDING, AND ARTIFICIAL VISION, IN BOTH THEORETICAL AND APPLICATIVE CONTEXTS. THIS GOAL WILL BE ACHIEVED BY STUDYING AND DEVELOPING MODELS, COMPUTER-BASED METHODS, INTELLIGENT SYSTEMS AND MACHINES FOR THE FORMATION, ELABORATION, ANALYSIS, AND RECOGNITION OF IMAGES AND SIGNALS, AND THEIR APPLICATION IN THE SOCIETY.

VISUAL COMPUTING (VC)

THE VISUAL COMPUTING (VC) LAB FOCUS HIS WORK ON THE DESIGN OF NEW COMPUTER GRAPHICS TECHNIQUES, WITH A SPECIAL FOCUS ON GEOMETRY PROCESSING, LEARNING, ACQUISITION, VISUALIZATION, AND PHYSICAL REPRODUCTION. THE VC LAB APPLICATION FIELDS INCLUDE CULTURAL HERITAGE, ENVIRONMENTAL MONITORING, DESIGN, AND ARCHITECTURE.

FLIGHT AND STRUCTURAL MECHANICS

MECHANICS OF MATERIALS AND STRUCTURES (MMS)

THE MECHANICS OF MATERIALS AND STRUCTURES (MMS) LAB CARRIES OUT RESEARCH, SOFTWARE DEVELOPMENT AND CONSULTING IN THE FIELD OF CONTINUUM MECHANICS, WITH PARTICULAR FOCUS ON STRUCTURAL ENGINEERING. MAIN RESEARCH TOPICS ARE: COMPUTATIONAL SOLID MECHANICS, MECHANICS OF MASONRY STRUCTURES, STRUCTURAL HEALTH MONITORING OF HISTORIC BUILDINGS.

SPACE FLIGHT DYNAMICS (SFD)

THE SPACE FLIGHT DYNAMICS (SFD) LAB IS ACTIVE IN THE FIELDS OF ORBITAL DEBRIS MODELING, MITIGATION AND REMEDIATION, REENTRY PREDICTIONS OF UNCONTROLLED SPACECRAFT AND ROCKET BODIES FOR CIVIL PROTECTION APPLICATIONS, SPACE EXPERIMENTS FOR FUNDAMENTAL PHYSICS, MISSION ANALYSIS, INCLUDING FLIGHT OPERATIONAL SUPPORT, AND ASTRODYNAMICS.

Istituto di Scienza e Tecnologie dell'Informazione "A. Faedo" (ISTI)
Via G. Moruzzi 1 – 56124 Pisa – ITALY
Contacts:
library@area.pi.cnr.it

Istituto di Scienza e Tecnologie dell'Informazione "A. Faedo"
Consiglio Nazionale delle Ricerche

Data from "Exploring Next Generation Grey" including Questionnaire and Results

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Joachim Schöpfel, University of Lille, France
https://orcid.org/0000-0002-4000-807X
https://ror.org/02kzqn938
Project Moderator / Text Writer

Dominic Farace, GreyNet International, Netherlands
https://orcid.org/0000-0003-2561-3631
https://ror.org/01pxfxj80
Project Administration / Text Reviewer

David Baxter, University of Alberta, Canada
https://orcid.org/0000-0001-5235-6728
https://ror.org/0160cpw27
Questionnaire

Silvia Giannini, Institute of Information Science and Technologies, ISTI-CNR, Italy
https://orcid.org/0000-0001-7323-3786
https://ror.org/05kacka20
Questionnaire

Anna Molino, Institute of Information Science and Technologies, ISTI-CNR, Italy
https://orcid.org/0000-0002-4793-3727
https://ror.org/05kacka20
Questionnaire

Tomas A. Lipinski, University of Wisconsin—Milwaukee, United States
https://ror.org/031q21x57
Questionnaire

Veronika Potočnik, National and University Library, Slovenia
https://ror.org/04tjx1w16
Questionnaire

Dobrica Savić, Nuclear Information Section, NIS-IAEA, United Nations
https://orcid.org/0000-0003-1123-9693
https://ror.org/00gtfax65
Questionnaire

Abstract

The GL2021 Conference[1] offered the many and diverse communities of practice in the field of grey literature a unique opportunity to collaborate in addressing and defining the next phase in the digital transformation of grey literature. In preparation for this conference, a panel session on the future of grey literature was planned on the program; and, in advance, an online survey was carried out among GreyNet's own community of practice in the field of grey literature.

Keywords

Grey literature; scientific and technical information; libraries; archives; museums; advocacy

Subject Area

Library and information sciences

* First published in the GL2021 Conference Proceedings, February 2022. - https://doi.org/10.26069/greynet-2022-000.481-gg

Methods Applied

● Steps

A selection of five panel members was made among the GreyNet's community of practice representing difference subject areas and fields of interest. Each of the five invited panelists were asked to provide a topic they consider of significant importance for grey literature. The Panel Moderator checked that there were no duplications among the five topics. Once the topics had been decided, each of the five panelists were then asked to submit two questions pertaining to their topic. This then accounted for the 10 questions in the survey. In order to standardize responses to the 10 questions, the choices of response were limited to: ❑ Strongly Agree ❑ Agree ❑ Uncertain ❑ Disagree ❑ Strongly Disagree
Each response to a question allowed for further comment. The online questionnaire was then launched on the SurveyMonkey platform[2].

● Sampling strategy

The link to the online survey was made openly accessible via GreyNet's Distribution List (890 recipients) and social media: Facebook[3] (158 friends), LinkedIn[4] (672 members), and Twitter[5] (1201 followers). While the population of the survey was not controlled, it is considered that all of the potential respondents have some level of affiliation with grey literature. Two reminders were sent out before the close of the survey.

Survey Population	Number of Survey Respondents	Percentage of Questions Answered	Average Number of Comments made per Question
Uncontrolled	**40**	**99.97%**	**8.2**

● Quality Control

The survey questions were double-checked by the panel members and the panel moderator. There was no specific control carried out on the data acquired from the survey. None of the categories of responses were grouped or otherwise normalized. All of the recorded comments were in line with the questioning, which may allow one to assume that there is no cause to question the validity of the responses.

Dataset Description

File name:	GL2021 Survey Results
Format:	PDF
Size:	308 KB
Creation dates:	*from 2021-06-20 to 2021-09-14*
Language:	English
License:	CC0 Waiver - no rights reserved
Archive name:	DANS EASY Archive
Publication date:	2021-11-22
DOI:	10.17026/dans-xrg-2gf6
URN:	urn:nbn:nl:ui:13-f3-av5w

Potential Reuse of the Data

The results of the survey could be used in a Position Paper, which may include the formal statements presented by the five panellists[6]. The data can also be useful for other researchers and information professionals interested in the development of scientific and technical information in general and grey literature in particular. Its reuse could be helpful in addressing issues dealing with documentary and cultural heritage, digital preservation, citizen science, peer review, as well as legal and policy matters. On a more critical note, the data is limited by the number of respondents to the survey – 40 in total. It remains a fact that the number of respondents does not formally allow for the expression of results in percentages. The data however remains preserved in a national archive[7], which carries the CoreTrustSeal[8] and by way of this data paper demonstrates compliance with FAIR data principles[9].

Linked References

[1] https://www.youtube.com/channel/UCVaYIdfpwZoQwAK2Dsqu-wQ

[2] https://www.surveymonkey.com/

[3] https://www.facebook.com/greynetinternational

[4] https://www.linkedin.com/groups/3718857/

[5] https://twitter.com/GreyLitNet

[6] https://www.youtube.com/playlist?list=PL38n__kpNAudqSttKuvNOPU6MAH7IYWMS

[7] https://easy.dans.knaw.nl/ui/datasets/id/easy-dataset:68541

[8] https://www.coretrustseal.org/wp-content/uploads/2018/04/DANS-Electronic-Archiving-SYstem-EASY-.pdf

[9] https://www.force11.org/group/fairgroup/fairprinciples

Appendix: Exploring Next Generation Grey – Panel Survey Results

Q1

Grey literature is part of the everyday working routine of librarians and information professionals operating in non-academic institutions, for example museums, archives and public libraries.

- Answered: 39
- Skipped: 1

ANSWER CHOICES	RESPONSES
Strongly agree	41.03% 16
Agree	41.03% 16
Neither agree nor disagree	5.13% 2
Disagree	10.26% 4
Strongly disagree	2.56% 1

Total Respondents: 39

Q2

In academic institutions, the affirmation of open science and open access principles significantly favor the production, publication, and retrieval of grey literature.

- Answered: 39
- Skipped: 1

ANSWER CHOICES	RESPONSES
Strongly agree	28.21% 11
Agree	38.46% 15
Neither agree nor disagree	20.51% 8
Disagree	7.69% 3
Strongly disagree	5.13% 2

Total Respondents: 39

Appendix: Exploring Next Generation Grey – Panel Survey Results

Q3

It will be difficult to find material in the library, whose process and handling is predominantly dependent on library resources.

- Answered: 38
- Skipped: 2

ANSWER CHOICES	RESPONSES
Strongly agree	18.42% 7
Agree	28.95% 11
Neither agree nor disagree	36.84% 14
Disagree	10.53% 4
Strongly disagree	5.26% 2

Total Respondents: 38

Q4

Small prints are an important part of each library and represents a fund of national cultural heritage.

- Answered: 38
- Skipped: 2

ANSWER CHOICES	RESPONSES
Strongly Agree	26.32% 10
Agree	47.37% 18
Neither agree nor disagree	23.68% 9
Disagree	0.00% 0
Strongly Disagree	2.63% 1

Total Respondents: 38

Appendix: Exploring Next Generation Grey – Panel Survey Results

Q5

The majority of future academic, scientific, and technical literature will be grey.

- Answered: 39
- Skipped: 1

ANSWER CHOICES	RESPONSES
Strongly agree	17.95% 7
Agree	20.51% 8
Neither agree nor disagree	28.21% 11
Disagree	23.08% 9
Strongly disagree	10.26% 4

Total Respondents: 39

Q6

The management of future grey and other literature, information, and data will converge.

- Answered: 39
- Skipped: 1

ANSWER CHOICES	RESPONSES
Strongly agree	17.95% 7
Agree	56.41% 22
Neither agree nor disagree	20.51% 8
Disagree	7.69% 3
Strongly disagree	0.00% 0

Total Respondents: 39

Appendix: Exploring Next Generation Grey – Panel Survey Results

Q7

Incentives for academics to participate in research published as grey literature must be improved.

- Answered: 39
- Skipped: 1

ANSWER CHOICES	RESPONSES
Strongly agree	61.54% 24
Agree	17.95% 7
Neither agree nor disagree	15.38% 6
Disagree	2.56% 1
Strongly disagree	2.56% 1

Total Respondents: 39

Q8

Peer-review processes are the most important method for raising the profile of research published as grey literature.

- Answered: 39
- Skipped: 1

ANSWER CHOICES	RESPONSES
Strongly agree	35.90% 14
Agree	28.21% 11
Neither agree nor disagree	25.64% 10
Disagree	7.69% 3
Strongly disagree	7.69% 3

Total Respondents: 39

Appendix: Exploring Next Generation Grey – Panel Survey Results

Q9

**While often country specific, the legal and policy infrastructure is adequate in terms of funding,
legal understandings, and policy protocols that support grey literature.**

- Answered: 39
- Skipped: 1

ANSWER CHOICES-	RESPONSES-
Strongly agree	0.00% 0
Agree	15.38% 6
Neither agree nor disagree	33.33% 13
Disagree	43.59% 17
Strongly disagree	7.69% 3

Total Respondents: 39

Q10

**The grey literature community should organize or develop an advocacy group that would actively
promote its concerns to policy and decision makers.**

- Answered: 40
- Skipped: 0

ANSWER CHOICES-	RESPONSES-
Strongly agree	47.50% 19
Agree	37.50% 15
Neither agree nor disagree	12.50% 5
Disagree	2.50% 1
Strongly disagree	0.00% 0

Total Respondents: 40

Twenty-Fourth International Conference on Grey Literature

Publishing Grey Literature in the Digital Century

National Library of Medicine
Lister Hill Auditorium, 5-6 December 2022
Bethesda, Maryland USA

Conference Announcement

For over three decades, authors and researchers in the field of information have addressed the many challenges in publishing grey literature. In so doing, they have confronted core issues. Is grey literature published literature, and if so, how is it published; how does it differ from commercially published literature; and foremost how can it stay abreast with the technological developments that will ensure its access, uses, and preservation for scholarly research and citizen science well into the 21st Century.

The response to such questions lies in the collaboration and integrated roles of publishing bodies and their affiliate libraries and information centers, where grey literature is produced and processed. While currentness is inherent to grey literature in that it is situated at the cutting edge of research, and while it is comprehensive in that it captures the corpus of both the research process and issuing results, grey literature publishing often lacks the financial resources and technical expertise afforded commercial publishers.

Due consideration should be given to shared workflows grounded in an understanding and commitment that production and publication constitute two integral parts in publishing today's digital grey literature. GL2022 will address the components of such shared workflows embedded in FAIR data principles and implemented by diverse communities of practice in this our digital Century.

Related Conference Topics

e-Publishing – *AV-Portals, Blogs, Data Archives, Repositories, etc.* **Digital Publications** – *Clinical Trials, ETDs, Data Papers, Preprints, etc.* **Research and Metadata** – *Datasets, Databases, PIDS, DOI, ORCiD, ROR-ID, etc.* **Stakeholders and Policies** – *Content and Service Providers, Authors and Researchers, OA, CC, FAIR, etc.* **Communities of Practice** – *Agriculture, Biomedicine, Economics, Fisheries, Physics, Library and Information, etc.*

GL2022 Conference Dateline

Mar. 31	April 11	April 20	April 25	Nov. 1st	Nov.15	Dec. 5-6
Call for Papers Closes	Program Committee Meeting	Author and Session Notifications	Call for Posters Opens	Early Registration Closes	Conference Papers and Posters Due	GL2022 Conference Convenes

On behalf of GreyNet and the International Conference Series on Grey Literature, 1992–2022

TextRelease
GL2022 Program and Conference Bureau

Javastraat 194-HS, 1095 CP Amsterdam, Netherlands
www.textrelease.com • conference@textrelease.com
Tel.+31-20-331.2420

ONLINE SURVEY

Digital Publishing and Grey Literature: On the War in Ukraine 2022

This study aims to build a better understanding of digital publishing and grey literature, whereby the War in Ukraine 2022 serves as a use case. Grey Literature is produced on all levels of government, academics, business and industry in diverse digital formats that are not controlled by commercial publishing. Survey respondents have the opportunity to answer 10 questions that take about 3 minutes to complete.

PARTICIPANT CONSENT FORM

Confidentiality
The results will not be publicly shared, will be de-identified, and published only in aggregate. Your identity will be kept confidential to the extent provided by law and your identity will not be revealed. All results and any related publications from this study will be anonymous.

Risks and benefits
There are no anticipated risks, nor are there any compensation or other direct benefits to you as a participant in this survey. This study may help you contribute to the aggregation of digital publishing and grey literature on the War in Ukraine 2022. This study can help to improve the understanding digital publishing and grey literature through a better understanding of how you and your organization publish on the War in Ukraine 2022.

Voluntary nature and withdrawal
You can withdraw your consent to participate at any time without consequence. You are free to withdraw from this study at any time without penalty and free to decline to answer particular questions. If you have questions about this research protocol, please contact **info@greynet.org.**

Survey Questions

1. Do you consent to take part in this study on the terms described above in the Participant Consent Form?
2. What is your organization's name and (if applicable) the acronym?
3. What is the URL of your organization's homepage?
4. Has your organization published one or more documents on the 2022 War in Ukraine?
5. If so, please provide a hyperlink or DOI to one of the publications?
6. What document type best describes the publication? (e.g., Blog, Podcast, Report, Policy Document, etc.)
7. Does the publication contain research data?
8. Does the publication in whole or part consist of audio-visual material?
9. Are you an author, co-author, or editor of the publication?
10. Please enter your name and/or ORCiD along with your email address?

To complete the survey, please proceed to
https://nl.surveymonkey.com/r/6XCP5QR

Author Information *CONTINUED*

Baars, Chris
Supervisor Digital Services at DANS: project lead DANS Archives, NARCIS (National Academic Research and Collaborations Information System) and DataverseNL. Member of ORCID Trust Working Group and EuroCRIS. Specialties: Digital Preservation; Research Data Management; Reuse of Data; Metadata; Persistent Identifiers (PIDs); PID-Graph; Enhanced Publications; Scientific Information Services; Repositories (IR); Agile-software-development; Research Information Systems (CRIS).
ROR_ID https://ror.org/008pnp284
ORCID_ID https://orcid.org/0000-0002-5228-1970

Biagioni, Stefania
Stefania Biagioni graduated in Italian Language and Literature and specialized in Data Processing and DBMS at the University of Pisa. She is currently an associate member of the research staff at the Institute of Information Science and Technologies "Alessandro Faedo" (ISTI), an institute of the Italian National Research Council (CNR) located in Pisa. She is currently involved in the activities of the ISTI Infrastructures for Science Laboratory (InfraScience). She has been Head Librarian till August 2017. She was responsible of National and International Projects on Digital Libraries and Open Access Repositories looking at the DRIVER/OpenAIRE vision, such as ERCIM Technical Reference Digital Library (ETRDL) and PUMA (PUblication MAnagement) & MetaPub Projects. She has coauthored a number of publications dealing with digital libraries and grey literature. Her research interest is focused on digital libraries, knowledge sharing and transfer in scientific area, scholarly communication infrastructures, data and documents management, Open Access and Open Science. She has been dealing with grey literature since the 90's. In 2013, she became involved in the GreyGuide Project, where she now serves as its Repository and Web Portal Manager. In 2018 together with GreyNet International, DOIs were minted and entered in the metadata fields of GreyGuide records. Stefania's involvement with persistent identifiers carried over to the AccessGrey Project in 2019. She is currently involved in the PID Project that includes the ORCiD and ROR ID together with DOI persistent identifiers in metadata records housed in the GreyGuide Repository.
ROR_ID https://ror.org/05kacka20
ORCID iD https://orcid.org/0000-0001-9518-0267
Email: stefania.biagioni@isti.cnr.it

Carlesi, Carlo
Carlo Carlesi, graduated in Computer Science, worked since 1970 at the IEI (now ISTI) of the CNR in Pisa. He is currently a Research Associate of the Institute ISTI and he is involved in the following projects: PUMA - Publication Management. The Digital Library service allows public access (when permitted) through Internet to the published documents produced by CNR Organizations. And GreyGuide, portal and repository of good practice and resources in the field of grey literature.
ROR_ID https://ror.org/05kacka20
ORCID iD https://orcid.org/0000-0001-9808-6268
Email: carlo.carlesi@isti.cnr.it

Farace, Dominic
Dominic Farace is Head of GreyNet International and Director of TextRelease, an independent information bureau specializing in grey literature and networked information. He holds degrees in sociology from Creighton University (BA) and the University of New Orleans (MA). His doctoral dissertation in social sciences is from the University of Utrecht, The Netherlands, where he has lived and worked since 1976. After six years heading the Department of Documentary Information at the Royal Netherlands Academy of Arts and Sciences (SWIDOC/KNAW), Farace founded GreyNet, Grey Literature Network Service in 1992. He has since been responsible for the International Conference Series on Grey Literature (1993-2013). In this capacity, he also serves as Program and Conference Director as well as managing editor of the Conference Proceedings. He is editor of The Grey Journal and provides workshops and training in the field of grey literature.
ROR_ID https://ror.org/01pxfxj80
ORCID_ID https://orcid.org/0000-0003-2561-3631
Email: info@greynet.org

Kergosien, Eric
Eric Kergosien, MCU since 2014, is working at the University Lille in the GERiiCO laboratory. His main area are Knowledge management and Text Mining applied to heterogeneous textual data with a special interest in semantic and geographic resources. One aspect of his work is Information Extraction with NLP and Text mining methods in several fields (scientific and technical data, libraries, land-use planning and medical). A second important aspect of his work is domain ontology engineering.
ROR_ID https://ror.org/02kzqn938
ORCID_ID https://orcid.org/0000-0002-2397-5519
Email: eric.kergosien@univ-lille.fr

Plank, Margret
Margret Plank is currently the Head of the Competence Centre for Non-Textual Materials at the German National Library of Science and Technology in Hannover (Germany). The aim of the Competence Centre for Non-Textual Materials is to develop emerging tools and services that actively support users in the scientific work process enabling non-textual material such as audiovisual media, 3D objects and research data to be published, found and made available on a permanent basis as easily as textual documents. Previously she was

Author Information

responsible for Information Competence and Usability at the TIB. She has also worked as a researcher at the Institute of Information Studies and Language Technology at the University of Hildesheim. She represents TIB on a number of boards including IFLA Steering Committee Audiovisual and Multimedia Section as well as ICSTI / ITOC. Margret Plank holds a Master degree in information science and media studies from the University of Hildesheim, Germany.
ROR_ID https://ror.org/04aj4c181
ORCID_ID https://orcid.org/0000-0001-8941-7563
Email: margret.plank@tib.eu

Prost, Hélène
Hélène Prost is information professional at the Institute of Scientific and Technical Information (CNRS) and associate member of the GERiiCO research laboratory (University of Lille 3). She is interested in empirical library and information sciences and statistical data analysis. She participates in research projects on evaluation of collections, document delivery, usage analysis, grey literature and open access, and she is author of several publications.
ROR_ID https://ror.org/02mn0vt57
ORCID_ID https://orcid.org/0000-0002-7982-2765
Email: helene.prost@inist.fr

Savić, Dobrica
Dr Dobrica Savić is an information and knowledge management consultant at the IAEA. He holds a Doctorate degree from Middlesex University in London, an MPhil degree in Library and Information Science from Loughborough University, UK, an MA in International Relations from the University of Belgrade, Serbia, as well as a Graduate Diploma in Public Administration, Concordia University, Montreal, Canada. He has extensive experience in the management and operations of web, library, information and knowledge management, as well as records management and archives services across various United Nations agencies, including UNV, UNESCO, World Bank, ICAO, and the IAEA. His main interests are digital transformation, creativity, innovation, and the use of IT for successful information and documentation services.
ROR_ID https://ror.org/00gtfax65
ORCID_ID https://orcid.org/0000-0003-1123-9693
Contact: www.linkedin.com/in/dobricasavic

Schöpfel, Joachim
Joachim Schöpfel is associate professor in information and communication sciences at the University of Lille, member of the GERiiCO laboratory and independant consultant at the Ourouk consulting office, Paris. He is interested in scientific information, academic publishing, open science and grey literature. He is a member of GreyNet, euroCRIS and NDLTD.
ROR_ID https://ror.org/02kzqn938
ORCID_ID https://orcid.org/0000-0002-4000-807X
Email: joachim.schopfel@univ-lille.fr

Smaili, Nadia
Lecturer-researcher, library science department, Djilali Bounaama Khemis Miliana University (Algeria). She is interested in scientific and technical information, grey literature in Algeria, the new technologies of information, open archives and the open access to grey information in the developing countries.
Djilali Bounaama Khemis Miliana University, Thniet El Had Street, Khemis Miliana, Ain Defla province- Algeria.
Email: n.smaili@univ-dbkm.dz

Thiault, Florence
Senior lecturer in Library and Information Science at University Rennes 2, laboratory PREFICS. Co-manager of URFIST (regional unit of training in scientific and technical information) of Rennes.
ROR_ID https://ror.org/01m84wm78
ORCID_ID https://orcid.org/0000-0001-7466-5855
Email florence.thiault@univ-rennes2.fr

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Manuscripts should not exceed 15 double-spaced typed pages. The size of the page can be either A-4 or 8½x11 inches. Allow 4cm or 1½ inch from the top of each page. Provide the title, author(s) and affiliation(s) followed by your abstract, suggested keywords, and a brief biographical note.
A printout or PDF of the full text of your manuscript should be forwarded to the office of TextRelease. A corresponding MS Word file should either accompany the printed copy or be sent as an attachment by email. Both text and graphics are required in black and white.

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i. All manuscripts should contain references
ii. Standardization should be maintained among the references provided
iii. The more complete and accurate a reference, the more guarantee of an article's content and subsequent review.

Specific

iv. Endnotes are preferred and should be numbered
v. Hyperlinks need the accompanying name of resource; a simple URL is not acceptable
vi. If the citation is to a corporate author, the acronym takes precedence
vii. If the document type is known, it should be stated at the close of a citation.
viii. If a citation is revised and refers to an edited and/or abridged work, the original source should also be mentioned.

Examples

Youngen, G.W. (1998), Citation patterns to traditional and electronic preprints in the published literature. - In: College & Research Libraries, 59 (5) Sep 1998, pp. 448-456. - ISSN 0010-0870

Crowe, J., G. Hodge, and D. Redmond (2010), Grey Literature Repositories: Tools for NGOs involved in public health activities in developing countries. – In: Grey Literature in Library and Information Studies, Chapter 13, pp. 199-214. – ISBN 978-3-598-11793-0

DCMI, Dublin Core Metadata Initiative Home Page http://purl.oclc.org/metadata/dublin_core/

Review Process

The Journal Editor first reviews each manuscript submitted. If the content is suited for publication and the submission requirements and guidelines complete, then the manuscript is sent to one or more Associate Editors for further review and comment. If the manuscript was previously published and there is no copyright infringement, then the Journal Editor could direct the manuscript straight away to the Technical Editor.

Journal Publication and Article Deposit

Once the journal article has completed the review process, it is scheduled for publication in The Grey Journal. If the Author indicated on the signed Rights Agreement that a preprint of the article be made available in GreyNet's Archive, then browsing and document delivery are immediately provided. Otherwise, this functionality is only available after the article's formal publication in the journal.

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