

Utilization of DJP's Open Government Data in Supporting Data Journalism Practices in Indonesia

Mujawaroh Annafi¹ & Nadia Humaira², Mutiara Yusdhiana³
Universitas Islam Negeri Sultan Syarif Kasim Riau^{1&2}
Direktorat Jenderal Pajak³
Correspondence email: mujawaroh.annafi@uin-suska.ac.id

Abstract

Open government data is a crucial element in realizing public transparency and accountability. The Directorate General of Taxes/Direktorat Jenderal Pajak (DJP), as the largest state revenue management institution, plays a strategic role in providing publicly accessible data and information through the Open Government Data (OGD) framework. Consequently, the development of data journalism in Indonesia demands the availability of complete, accurate, and easily processed public data to support evidence-based news production. This study aims to analyze the use of DJP's OGD in supporting data journalism practices in Indonesia. The study used a descriptive qualitative approach with a content analysis method of public documents and data published on the DJP's official website. The results show that the DJP website provides a variety of information relevant to data journalism, such as performance reports, financial report summaries, strategic plans, press releases, and public information service statistics. Based on OGD principles, most DJP data meet the criteria of complete, primary, non-discriminatory data, non-proprietary, and license-free data. However, this study also found several limitations, particularly related to the timeliness of data updates and the limited availability of machine-readable data formats, which impact data processing and analysis in data journalism practices. Overall, the DJP's OGD is capable of supporting data journalism practices at the basic to intermediate levels, but still requires increased consistency in updates and the provision of open data formats for further optimization. This research contributes to understanding the relationship between government data transparency and strengthening data journalism practices in Indonesia.

Keywords: open government data, data journalism, Directorate General of Taxes

INTRODUCTION

Transparency in government has become a global movement, with many countries promoting openness and public participation to strengthen democratic processes and government accountability (McDermott, 2010). Transparency enables the public to access information about government activities, and one of its key components is open access to government data (Jetzek et al., 2013). In Indonesia, Act Number 14 of 2008 concerning Public Information Disclosure obliges public institutions to publish data and information that are quickly, accurately, cheaply, and easily accessible to the public (Undang-Undang Tentang Keterbukaan Informasi Publik Nomor 14 Tahun, 2008). In the taxation sector, transparency is essential for building public trust and encouraging tax compliance as public demands for accountability continue to increase.

The Directorate General of Taxes/Direktorat Jenderal Pajak (DJP) is the institution responsible for taxation in Indonesia and plays a strategic role in realizing transparent, accountable, and participatory governance (DJP, 2024). DJP consistently improves data transparency and public communication, as reflected in national-level achievements, including the Gold Winner award in the Digital Channel category (Website subcategory) at the 2023 Public Relations Indonesia Award (PRIA) (P2Humas, 2023). This recognition indicates that the DJP website functions as an informative and high-quality digital platform, making it empirically relevant as an object of research on government data transparency.

In the digital era, transparency must be accompanied by the ability to present complex data in an engaging and easily understood manner, which highlights the importance of data journalism. Digital technology assists journalists by accelerating news production and enhancing interaction with the public (Harro-Loit & Josephi, 2020). Data journalism relies heavily on accessible public data or transparent pre-processed data from government institutions, including the DJP (Tabary et al., 2016), and combines data analysis, visualization, and journalistic narratives to produce credible and understandable information (Gray et al., 2012).

DJP demonstrates the application of data journalism principles through official publications such as annual reports, tax statistics, and social media, which present open data in visual formats that facilitate analysis and interpretation. This transparency supports journalists in producing news, in-depth reports, and policy analyses based on valid data, while also enhancing public understanding of fiscal policy and encouraging public participation in taxation (Asprilla & Maharani, 2019). Based on this background, this study aims to analyze how DJP's Open Government Data supports data journalism practices in Indonesia.

THEORETICAL FRAMEWORK

Open Government Data

Open Government is an international concept aimed at improving public service quality and strengthening government transparency through the principles of participation, transparency, and collaboration (Sayogo et al., 2014). These principles expand access to government information, simplify bureaucratic processes, and enhance the quality of public information and (Arsyi et al., 2024). Technological development plays a crucial role in supporting efficient public services, reducing procedural costs, and enabling the public to analyze and monitor government policies (Janssen et al., 2012). Open government also refers to the extent to which citizens can engage in and influence government processes through access to public data and participation in decision-making (Meijer et al., 2012).

In Indonesia, public information disclosure is regulated by Act Number 14 of 2008, which obliges public institutions to provide accurate, complete, and accountable information through the Information and Documentation Management Officer (PPID), both periodically and at any time as required (Undang-Undang Nomor 14 Tahun 2008 Tentang Keterbukaan Informasi Publik, 2008). Open data supports public services by enabling the dissemination of raw, machine-readable data that can be freely accessed and utilized for public interest (Kassen, 2022). Open data refers to non-commercial and non-personal government data that can be reused without copyright or patent restrictions (Braunschweig et al., 2012).

Internationally, open government data must comply with eight principles: complete, primary, timely, accessible, machine-processable, non-discriminatory, non-proprietary, and license-free (Open Government Working Group, 2007). These principles are widely used as indicators in OGD research (Sayogo et al., 2014). Retnowati (2018) explains that completeness refers to information provided periodically or immediately; primary data must be sourced directly without modification; timeliness relates to regular and prompt updates; accessibility ensures public access through online platforms; machine-processability allows data use in formats such as PDF or CSV; non-discrimination guarantees equal access for all users; non-proprietary ensures fairness in data management; and license-free means data can be downloaded without legal restrictions.

Data Journalism

Data journalism originated from earlier practices such as infographics and computer-assisted reporting (CAR) and developed alongside technological advances, including the use of computers in newsrooms, greater access to electronic sources and archives, open data initiatives, and the growth of the World Wide Web (Knight, 2015; Appलगren, 2017). Although there is no single agreed definition, data journalism and data-driven journalism are now used interchangeably, while the term CAR has largely fallen out of use Knight (2015).

The data journalism workflow generally consists of identifying the news focus and the role of data, collecting relevant datasets, cleaning and modifying data, analyzing and comparing datasets, producing journalistic content in textual and visual forms, and publishing the datasets used (Aitamurto et al., 2011). Constantaras (2021) highlights similar stages, including data compilation, data cleaning, contextual verification to ensure credibility and objectivity, data integration, and communication through visualizations such as maps, graphs, infographics, or animations.

Data journalism is crucial because the processes of collecting, filtering, analyzing, and visualizing data enhance the value of information. While media organizations share similar workflows, differences arise in technical aspects such as data collection methods, analytical and visualization tools, data

processing platforms, and storytelling styles (Gray et al., 2012). Based on these explanations, this study adopts six stages of data journalism: identifying core news and data roles, collecting data, cleaning data, analyzing and comparing datasets, producing news and visualizations, and publishing the datasets.

METHODOLOGY

This study employs a qualitative communication research design to understand how and why a communication phenomenon occurs, particularly related to the provision and use of public data. Using qualitative content analysis, this research interprets texts within their contextual framework to generate in-depth and practically useful insights (Creswell & Poth, 2016). The focus of the study is on how the Directorate General of Taxes/Direktorat Jenderal Pajak (DJP) provides and presents public data within the Open Government Data (OGD) framework and how this data is utilized by journalists in data journalism practices.

The research object consists of public data and documents published on the official DJP website, www.pajak.go.id. Data were collected through documentation as the primary technique in document-based research (Bowen, 2011), supported by non-participatory observation to assess the alignment of DJP data provision with OGD principles and its relevance to data journalism needs, as well as a literature review to strengthen the theoretical foundation. Data analysis followed the qualitative content analysis model developed by Schreier (2024), which includes data reduction, categorization and coding, interpretive analysis, and conclusion drawing.

This study adopts a descriptive qualitative approach, as qualitative communication research seeks to explain how and why communication realities emerge based on discursive materials such as written documents and online content (Pawito, 2007). This approach enables in-depth interpretation of data presentation patterns and public communication practices of government institutions without relying on statistical measurements (Creswell, 1998).

RESULTS AND DISCUSSION

Website www.pajak.go.id is an example of government data transparency. This website contains various tax-related information. In this study, researchers focused on the Public Information menu, which includes the Public Information List, Budget and Financial Realization, Transparency of the Directorate General of Taxes/Direktorat Jenderal Pajak (DJP) Performance, Digital Services, Information and Documentation Management Officers/Pejabat Pengelola Informasi dan Dokumentasi (PPID), Complaints of Abuse of Authority, Provision of Speakers, Discussants, or Moderators for Activities, and Service Standards within the DJP (DJP, 2024).

Implementation Of Open Government Data By The DjP

The openness of public institution data can be seen through the principles of open data, including complete, primary, timely, accessible, machine-readable, non-discriminatory, non-proprietary, and license-free..

Complete

The complete principle indicators of Open Government Data (OGD) are the existence of complete information on the profile of the public institution, information on the activities of the public institution, information on the realization of the activities of the public institution, information on the financial reports of the public institution, summary information on public access, summary information on regulations, decisions and/or policies of the public institution, information on the good and procedures for obtaining public information, information on procedures for complaints about abuse of public authority, information on announcements of procurement of goods and services of the public institution, as well as information on early warning procedures and emergency procedures of the public institution.

Table 1. Complete OGD Principle Indicators

No	Indicator	Available (Yes/No)
1	Complete information on public institution profiles	Yes
2	Information on public agency activities	Yes
3	Information on the realization of public agency activities	Yes
4	Public agency financial report information	Yes
5	Summary information on access carried out by a public institution	Yes
6	Information about the rights and procedures for obtaining public information	Yes
7	Information on complaint procedures, abuse of authority of a public institution	Yes
8	Information regarding announcements of the procurement of goods and services by a public institution	Yes
9	Information on early warning procedures and emergency evacuation procedures of a public institution	No

Source: Researcher's Data, 2025

Primary

Based on data from the Public Information menu on the pajak.go.id website, majority Public information held by the DJP includes information on the profile of the DJP; programs, activities, agendas, and performance of the DJP; information directly related to services to the public; internal financial information of the DJP; regulations, policies, draft regulations in the field of taxation; information on procurement of goods/services; information that must be announced immediately; information that must be available at all times; data from the Directorate General of Taxes' PPID; complaints of misuse. authority; provision of speakers/moderators, and service standards. DJP holds almost all types of public information on the DJP website.

Table 2. Primary Indicators of People with Disabilities (ODG)

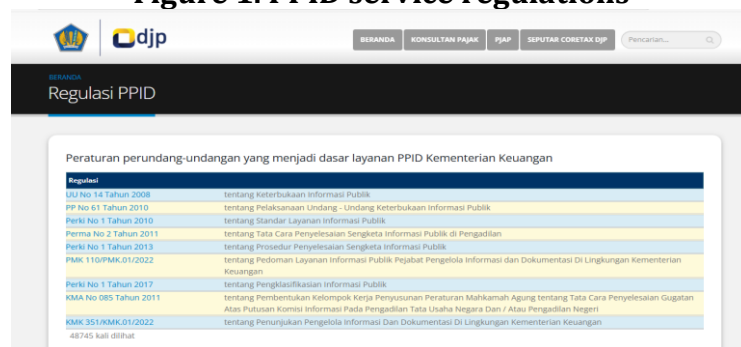
No	Indicator	Availability (Yes/No)
1	Owned and uploaded to the public agency website	Yes
2	Unmodified, except for financial information, is the total activity, not the detailed	Yes

Source: Researcher's Data, 2025

In addition, several types of information on the DJP website fall under the direct authority of the Ministry of Finance/Kementerian Keuangan (Kemenkeu), including information on prospective employee recruitment; a list of Kemenkeu public information; information on regulations/decisions/policies issued by Kemenkeu; organizational, administrative, personnel, and financial guidelines; and public information regulations. Some other information does not originate from the DJP, such as information on prospective student recruitment for civil service education and information on goods/services procurement held by the Kemenkeu LPSE and LKPP.

All information served by DJP presents information on its website as is, as is, the source, without any changes, reductions, or adjustments, meaning it remains unmodified. On its website, the DJP lists the laws and regulations that form the basis for the Ministry of Finance's PPID service (PPID Regulation | Directorate General of Taxes).

Figure 1. PPID service regulations



Source: Screenshot of the DJP Website (2025)

Timely

The Directorate General of Taxes (DJP) regularly publishes annual reports and statistics, which are generally timely. However, periodic data such as quarterly or semiannual information are not consistently available, even though the Public Information Disclosure Act (UU KIP) requires periodic updates at least every six months. As a result, the DJP website has not fully complied with timeliness requirements, particularly for rapidly changing statistical data.

The OGD Timeliness Principle emphasizes that public information should be available periodically, immediately, and at any time as needed. While this principle has been partially implemented on the DJP website, variations remain in the frequency and consistency of data updates. In the Program, Activity, and Target Matrix category, documents such as the Strategic Map, KPIs, Strategic Plan 2020–2024, Tax Revenue Realization 2013–2018, and Net Expenditure are available, but many have not been updated for recent years, especially tax revenue data that stopped in 2018. This indicates irregular updating of strategic and historical datasets. In contrast, topical information such as press releases shows strong timeliness, with an average of 74 items published per month from January to November 2025. However, the Leadership Agenda was only updated until May 2025, reflecting inconsistent updates that may reduce transparency regarding officials’ activities.

Table 3. DJP Press Release 2025

Month	1	2	3	4	5	6	7	8	9	10	11
News Count	54	68	149	16	99	66	102	114	38	59	49
Average											74

Source: Researcher's Data, 2025

For annual periodic information, several gaps remain. The DJP Work Plan is only available up to 2023, with no updates for 2024–2025, while the Performance Report has been consistently updated annually since 2016. The Summary Financial Report and Summary Public Information Access Report also show high consistency, with updates available through 2024.

Overall, the implementation of the Timeliness principle on the DJP website is generally good, particularly for current information such as press releases. However, irregular updates to strategic and annual periodic information indicate the need for improved data management, as outdated data can reduce analytical accuracy and the quality of Open Government Data practices. Although transparency has been implemented, improvements in timeliness are still required to meet ideal OGD standards. In contrast, information that must be announced immediately, such as anti-gratification appeals, fraud warnings, service downtime notifications, and policies on administrative sanction relief, has been promptly communicated by the DJP.

Figure 2.
Immediate information was uploaded on June 20, 2025, for a system update that resulted in downtime on June 21, 2025.



Source: Screenshot of the DJP Website (2025)

DJP public information service standards (website), it is explained that the time period for completing requests or objections to public information is that the DJP PPID will provide written notification to the applicant no later than 10 days from receipt of the request, and can extend the submission time for a maximum of seven subsequent working days.

Accessible

The www.pajak.go.id website offers easy access without having to log in first, with relatively clear information navigation, and all documents can be read directly in both PDF and HTML formats. This aligns with the Public Information Disclosure Law, which emphasizes easy, fast, and simple access.

Figure 3. DJP website navigation

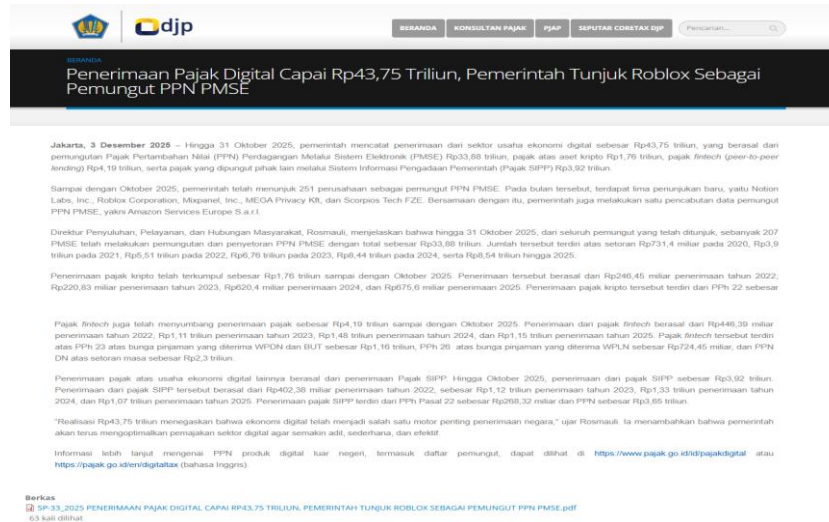


Source: Screenshot of the DJP Website (2025)

Machine Processable

The definition of machine-processable means that uploaded documents can be used and downloaded by the public in PDF, CSV, or web service formats (Retnowati et al., 2018). From the analysis of the DJP website, it can be seen that the DJP also provides data in PDF and web service formats. However, other formats such as CSV, JSON, or API were not found, the DJP website focuses more on documents, not automation datasets, and not all data is machine-readable, there are some hardcopy data, namely 'Correspondence from leaders or officials of the Ministry of Finance in the context of implementing their main duties and functions' and 'treasury or inventory data' which cannot be downloaded via the web.

Figure 4. Provision of data in page and PDF format by the DJP



Source: Screenshot of DJP Website (2025)

Non-discriminatory

DJP website adheres to the principle of non-discrimination, allowing access without registration, login, or administrative requirements. This also aligns with the Public Information Disclosure Law, which emphasizes access for all citizens without user discrimination. For data not available on the DJP website, the principle of non-discrimination is also applied, explaining that anyone can request information online or offline by providing personal identification and stating the reason for the document request.

Figure 5. Flow of public information requests on the DJP website

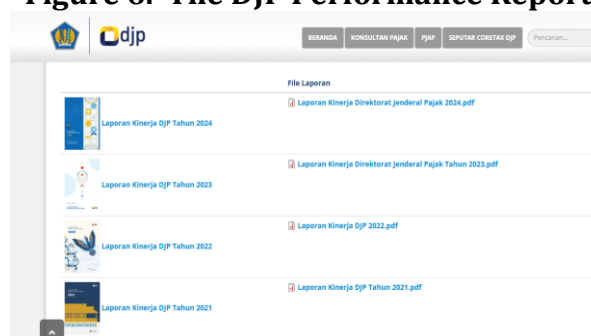


Source: Screenshot of the DJP Website (2025)

Non-proprietary

This principle is demonstrated through equal and non-discriminatory access to public documents such as the Strategic Plan, KPIs, Performance Reports, Financial Report Summaries, and Public Information Access Report Summaries, which can be downloaded without login, identification, or membership requirements. All users access documents through the same website and download mechanisms, ensuring no preferential treatment or information advantage for any group. Additionally, the DJP proactively publishes documents without waiting for formal PPID requests, reinforcing unbiased access. Consistent document formats and uniform distribution channels further prevent information superiority. Based on these findings, the DJP website fulfills the non-exclusion principle by providing fair, open, and equal data access for all users

Figure 6. The DJP Performance Report



Source: Screenshot of the DJP Website (2025)

License Free

Based on the researcher's observation of the DJP transparency and public information website, the license-free principle has been fulfilled. Public documents such as the DJP Strategic Plan, KPIs, Work Plans, Performance

Reports, Financial Statement Summaries, Public Information Access Reports, and other publications can be downloaded directly without account registration, login, or license approval. These documents are provided in PDF format, an open standard not tied to specific commercial software, allowing users to freely access and utilize the information.

In addition, DJP does not impose copyright restrictions, watermarks, or exclusive use terms on its documents. There are no legal limitations on reuse or distribution, enabling the public to employ the data for research, education, publication, or analysis. Overall, this accessibility indicates that the DJP website complies with the license-free principle by providing open, unrestricted, and user-friendly access to public information for all users.

DJP's OGD In Supporting Data Journalism Practices In Indonesia

At the stage of identifying the core news and the role of data, the availability of DJP public information, such as performance reports, statistics, tax revenue realization, strategic maps, press releases, and financial summaries, provides journalists with a strong basis for determining news angles related to policy effectiveness, revenue trends, and budget issues. The Performance Transparency menu enables journalists to identify evidence-based issues without lengthy data requests.

In the data identification and collection stage, the DJP website provides license-free access to downloadable PDF documents and open HTML pages without login requirements. Documents such as KPIs, Strategic Plans, and Public Information Access Reports can be directly used as primary data, reflecting OGD principles of primary, non-discriminatory, non-proprietary, and license-free access. This positions the DJP website as an accessible government data repository for data journalism.

At the data cleaning and modification stage, although the DJP data are mostly available in PDF rather than machine-readable formats, they still contain high informational value. Journalists can convert and process this data using digital tools, although this requires additional effort. The lack of structured data formats remains a technical limitation in fully supporting data journalism.

For data analysis and comparison, historical datasets such as tax revenue realization, annual performance reports, and work plans enable trend analysis, comparison between targets and outcomes, and evaluation of tax policies over time, despite some gaps in updates. Regular publication of annual reports and financial summaries supports longitudinal analysis.

News production and visualization are supported by narrative and statistical content on the DJP website, including frequent press releases and

existing graphs. These materials provide sufficient textual and numerical data for journalists to develop independent visualizations aligned with data journalism practices.

Finally, the publication and inclusion of datasets are facilitated by the license-free principle, allowing journalists to cite and share data without copyright restrictions and enabling public verification. Overall, DJP's OGD supports data journalism in Indonesia, particularly in data access, verification, and analysis, despite limitations related to data formats, update consistency, and the availability of recent statistics. Nonetheless, the DJP website remains a comprehensive and transparent government data source and serves as a strong foundation for evidence-based and transparency-oriented data journalism in Indonesia.

CONCLUSION

This study shows that the Directorate General of Taxes' (DJP) Open Government Data (OGD) plays an important role in supporting data journalism practices in Indonesia. The DJP public information website provides various key documents, such as performance reports, financial summaries, strategic plans, KPIs, press releases, and public information access statistics, that enable journalists to identify issues, collect and verify data, and produce evidence-based reporting. These data generally meet OGD principles of being comprehensive, primary, non-discriminatory, non-proprietary, and license-free.

However, limitations remain in the implementation of the Timely and Machine Readable principles. Some strategic data are not regularly updated, and most datasets are still published in PDF format, requiring additional processing for analysis. As a result, DJP's OGD currently supports data journalism at a basic to intermediate level but requires further improvement to enable more efficient and sustainable practices. Therefore, it is recommended that DJP improve update consistency and provide machine-readable data formats. Future research should involve interviews or focus group discussions with journalists to better understand data usage, challenges, and additional needs in data-driven reporting.

REFERENCES

- Aitamurto, T., Sirkkunen, E., & Lehtonen, P. (2011). Trends In Data Journalism. *Espoo: VTT*, 0–27.
- Appelgren, E. (2017). An Illusion of Interactivity The paternalistic side of data

- journalism. *Journalism Practice*, 0(0), 1–18.
<https://doi.org/10.1080/17512786.2017.1299032>
- Arsyi, A., Huroidhoh, S., Optafiyacha, S. A., Arsyi, A., Huroidhoh, S.,
Optafiyacha, S. A., Pembangunan, U., & Veteran, N. (2024). *Jurnal Politik
dan Pemerintahan Daerah Vol 6 No 1 Tahun 2024*, p 118-132. 6(1), 118–
132.
- Asprilla, A., & Maharani, N. (2019). Jurnalisme Data Dalam Digitalisasi
Jurnalisme Investigasi Tempo. *Jurnal Kajian Jurnalisme*, 02(02).
<http://jurnal.unpad.ac.id/kajian-jurnalisme%7C212>
- Bowen, G. (2011). Document Analysis as a Qualitative Research Method
Glenn. *Western Carolilna University*, 28(4), 78–81.
<http://dx.doi.org/10.1016/j.sbspro.2011.11.016%0Awww.ijonte.org%0Ahttp://blog.powerdata.es/el-valor-de-la-gestion-de-datos/bid/405060/Qu-significa-la-integraci-n-de-datos>
- Braunschweig, K., Eberius, J., Thiele, M., & Lehner, W. (2012). The State of
Open Data Limits of Current Open Data Platforms Categories and Subject
Descriptors. *Limits of Current Open Data Platforms*, 1, 72–72.
- Cheruiyot, D., Baack, S., & Ferrer-Conill, R. (2019). Data Journalism Beyond
Legacy Media: The case of African and European Civic Technology
Organizations. *Digital Journalism*, 7(9), 1215–1229.
<https://doi.org/10.1080/21670811.2019.1591166>
- Constantaras, E. (2021). *UNDP REGIONAL CENTRE FOR EUROPE AND THE CIS
DATA JOURNALISM TRAINING: Thinking Like a Data Journalist*.
<https://innovation.eurasia.undp.org/wp-content/uploads/2021/03/Module-1-UNDP.pdf>
- Creswell, J. W. (1998). *Qualitative Inquiry and Research Design: Choosing
among Five Traditions*. Sage Publications.
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative Inquiry and Research Design:
Choosing Among Five Approaches*. Sage Publications.
- DJP. (2024). *Profil PPID DJP*. <https://www.pajak.go.id/id/gambaran-singkat-pembentukan-ppid-tingkat-i>
- Gray, J., Bounegru, L., & Lucy Chambers. (2012). *The Data Journalism
Handbook: How Journalist Can Use Data to Improve the News*. O'Reilly
Media, Inc.
- Harro-Loit, H., & Josephi, B. (2020). Journalists' Perception of Time Pressure:
A Global Perspective. *Journalism Practice*, 14(4), 395–411.

<https://doi.org/10.1080/17512786.2019.1623710>

Janssen, M., Charalabidis, Y., & Zuiderwijk, A. (2012). *No TiBenefits, Adoption Barriers and Myths of Open Data and Open Government*. 29(4), 258–268.

Jetzek, T., Avital, M., & Bjørn-Andersen, N. (2013). Generating value from open government data. *International Conference on Information Systems (ICIS 2013): Reshaping Society Through Information Systems Design, 2*, 1737–1756.

Kassen, M. (2022). *Open Data Governance and Its Actors* (Vol. 7).

Knight, M. (2015). Data journalism in the UK: A preliminary analysis of form and content. *Journal of Media Practice*, 16(1), 55–72.
<https://doi.org/10.1080/14682753.2015.1015801>

Lewis, S. C., & Westlund, O. (2015). Big Data and Journalism: Epistemology, expertise, economics, and ethics. *Digital Journalism*, 3(3), 447–466.
<https://doi.org/10.1080/21670811.2014.976418>

McDermott, P. (2010). Building open government. *Government Information Quarterly*, 27(4), 401–413. <https://doi.org/10.1016/j.giq.2010.07.002>

Meijer, A. J., Curtin, D., Hillebrandt, M., & Curtin, D. (2012). *International Review of Administrative Sciences*.
<https://doi.org/10.1177/0020852311429533>

Open Government Working Group. (2007). *Open Government Data Definition: The 8 Principles of Open Government Data*.
<https://opengovdata.io/2014/8-principles/>

P2Humas. (2023). *DJP Raih 6 Penghargaan, Salah Satunya Best Presenter*.
<https://pajak.go.id/index.php/en/node/92841>

Pawito. (2007). *Penelitian Komunikasi Kualitatif* (A. Rahim (ed.); 1st ed.). LKis.

Piotrowski, S. J., & Van Ryzin, G. G. (2007). Citizen attitudes toward transparency in local government. *American Review of Public Administration*, 37(3), 306–323.
<https://doi.org/10.1177/0275074006296777>

Retnowati, Manongga, H. F., & Sunarto, H. (2018). *Prinsip-Prinsip Open Government Data*. 25–29.

Sayogo, D. S., Pardo, T. A., & Cook, M. (2014). *A Framework for Benchmarking*

Open Government Data Efforts. May 2010.
<https://doi.org/10.1109/HICSS.2014.240>

Schreier, M. (2024). Qualitative Content Analysis in Practice. In *Qualitative Content Analysis in Practice*. <https://doi.org/10.4135/9781529682571>

Stagars, M. (2016). *Open Data in Southeast Asia: Towards Economic Prosperity, Government Transparency, and Citizen Participation in the ASEAN*. Springer.

Tabary, C., Provost, A. M., & Trottier, A. (2016). Data journalism's actors, practices and skills: A case study from Quebec. *Journalism*, 17(1), 66–84. <https://doi.org/10.1177/1464884915593245>

Undang-Undang Nomor 14 Tahun 2008 Tentang Keterbukaan Informasi Publik, Pub. L. No. 11 (2008).

Undang-Undang Tentang Keterbukaan Informasi Publik Nomor 14 Tahun (2008). UU Tentang Keterbukaan Informasi Publik (UU Nomor 14 Tahun 2008). *Jurnal Teknologi Informasi Dan Komunikasi (JTIK) STMIK ProVisi Semarang*, 49–60.