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## Comparative Study on Safeguard Mechanisms for Open Government Data Sharing in China, the United States, and the United Kingdom: Post-print

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### Abstract

[Purpose/Significance] This study aims to elaborate the primary practices of government data and information openness and sharing in China, the United States, and the United Kingdom, and to propose policy recommendations for China's government data and information openness and sharing through comparative analysis.

[Method/Process] This research employs literature review and international comparative approaches, systematically examining the main practices of safeguard mechanisms for government data openness and sharing in China, the US, and the UK across four dimensions: policy and legal framework, organizational system, platform construction, and implementation, supervision, and feedback. It comparatively analyzes the similarities and differences among the three countries and proposes relevant recommendations to promote government data and information openness and sharing.

[Results/Conclusion] Through comparative study of the three countries and drawing on beneficial practices from the US and UK, China should, at the current stage, expedite the refinement of regulations and standards for government data and information openness and sharing, enhance the organizational framework, build platforms for data and information openness and sharing, and explore effective operational mechanisms, thereby tapping into "data dividends," creating greater public value, and advancing the "Cyber Power" and "Digital China" strategies in the new era.

## Full Text

### Preamble

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#### A Comparative Study on the Safeguard Mechanism of Open & Sharing Government Data Information in China, America and Britain

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### Abstract

**[Purpose/Significance]** This paper aims to expound the main practices of open & sharing government data information (OSGDI) in China, America, and Britain, and through comparative analysis, proposes policy recommendations for China's OSGDI. **[Method/Process]** Using literature research and international comparative methods, this study examines the safeguard mechanisms of OSGDI in the three countries from four aspects: policy and legal system, organizational system, platform construction, and implementation with supervision feedback. It compares and analyzes the similarities and differences among the three countries, and puts forward relevant suggestions to promote OSGDI. **[Result/Conclusion]** Through comparative study of China, America, and Britain, and drawing on the beneficial practices of America and Britain, China should currently accelerate the improvement of regulations and standards for OSGDI, perfect the organizational system, construct data information open sharing platforms, and explore effective operating mechanisms, so as to excavate "data dividends," create greater public value, and advance the "Cyber Power" and "Digital China" strategies in the new era.

**Keywords:** China; America; Britain; Open & Sharing Government Data Information (OSGDI); Safeguard Mechanism

## 2 Main Practices of OSGDI Safeguard Mechanisms in China, America, and Britain

The "open government data" movement originated from a civil initiative in America in 1983, while the concept of "open government" was first proposed by Britain. America and Britain have formed relatively complete safeguard mechanisms for government data information opening, leading the world in openness [9] and driving the global wave of government data information opening. In comparison, China's government data information opening started relatively late. After 2004, significant progress was made, playing a positive role in assisting

government decision-making, promoting vertical and horizontal communication and collaboration, and serving society.

## 2.1 American OSGDI Safeguard Mechanism

**2.1.1 Policies and Regulations** In 1985, the U.S. government promulgated the *Federal Government Information Resources Management Policies*, which first proposed guiding opinions on government information resource opening [10]. Since then, America has issued a series of influential policy and regulatory documents. In terms of issuing bodies, these include Congress, the President, and federal courts. In terms of content, they include opening principles, technical specifications, data quality requirements, and purposes. The primary purposes are to meet public and societal data needs and improve government transparency. For example, the *Copyright Law* stipulates that government works are not copyrighted and can be provided to the public for free use. The *Open Government Data Act* requires all government agencies to proactively disclose their public data in machine-readable and searchable formats, except where prohibited by law or involving national security and other special reasons. As shown in Table 1, the main policies and regulations include:

- 1985: *Federal Government Information Resources Management Policies* – First proposed requirements for government information resource opening [10]
- 2000: *OMB Circular A-130* – Stipulated that all information created, collected, processed, disseminated, or disposed of by the federal government should be free and open to everyone for convenient use and reuse [11]
- 2000: *Data Quality Act* – Proposed requirements for objectivity, utility, and impartiality from a data quality perspective to regulate government data publication quality [12]
- 2009: *Memorandum on Transparency and Open Government* – Required federal departments to improve transparency, public participation, and collaboration, laying the foundation for open government data [13]
- 2009: *Open Government Directive* – Launched the national platform Data.gov; required agencies to publish government data online in appropriate open formats
- 2013: *Executive Order 13642* – Required agencies to publish machine-readable, standardized data
- 2013: *Open Government Initiative* – Advocated government data opening with machine-readable, standardized formats
- 2013: *Open Data Policy—Managing Information as an Asset* – Established Project Open Data, specifying technical requirements, data formats, standards, protocols, metadata, and responsibilities [14]
- 2014: *U.S. Open Data Action Plan* – Summarized practices and proposed improvement measures [15]
- 2016: *Open Government Data Act* – Mandated proactive disclosure in machine-readable, searchable formats

- 2016: *Federal Big Data Research and Development Strategic Plan* – Guided big data projects and investments [16]

**2.1.2 Organizational System** In the 1990s, America established the President’s Management Council (PMC) to oversee the top-level design of government data opening, with members mainly from department heads to ensure coordination [17]. The Office of Management and Budget (OMB), a subordinate agency to the President and PMC, executes budget plans [18]. Since almost all administrative activities involve funding, OMB’s work runs through all stages of policy formulation, implementation, and supervision, including reviewing the completeness and openness of agency data inventories. OMB houses the Office of E-Government & Information Technology (OEGIT) for e-government planning and investment, and the Office of Information and Regulatory Affairs (OIRA) for regulating government data information resources. The General Services Administration (GSA), under presidential leadership, houses the Office of Citizen Service and Innovative Technology (OCSIT), which maintains the Data.gov platform [19]. Government data publication also coordinates with the Office of Science and Technology Policy (OSTP) to ensure cross-departmental data interoperability. Additionally, the Department of Justice’s Office of Information Policy (OIP) formulates information policies, supervises legal implementation, and provides legal consultation [20]. Each department performs its functions, coupling different policies in practice, while the relatively independent Department of Justice undertakes legal supervision functions, as shown in Figure 1 [Figure 1: see original paper].

**2.1.3 Platform Construction** In 2009, the federal government launched Data.gov, which connects federal agencies and state official websites and their datasets through map indexing [21]. OCSIT and other authorized agencies collect, organize, and upload data, using data linkage technology for unified management and secondary retrieval. Data follows uniform standard formats to ensure machine readability and retrievability, such as XML, JSON/RSS, CSV, KML, and KMZ. The platform provides not only raw data but also extraction tools, analysis tools, and format conversion tools. Data.gov covers nearly all datasets collected by the U.S. federal government, spanning agriculture, manufacturing, commerce, geography, climate, and other fields [19].

**2.1.4 Implementation and Supervision Feedback** America ensures policy implementation through inter-departmental cooperation. In 2010, OMB led the establishment of the Open Government Working Group (OGWG) with 42 participating agencies, organizing forums and meetings to discuss issues [22]. OIP under the Department of Justice supervises legal implementation. In 2013, the Project Open Data (POD) open-source project was created, involving federal agencies, enterprises, social organizations, and the public to provide support from code to case studies. Participants can collaborate online or attend offline events like Datapalooza and hackathons. America also encourages individuals and enterprises to develop data applications to mine value, as seen with GPS data opening. Furthermore, America emphasizes international cooperation, ini-

tiating the Open Government Partnership (OGP) in 2011 with countries including Britain, Norway, Mexico, Brazil, Indonesia, Philippines, and South Africa, which has since expanded to over 50 countries and regions [23].

## 2.2 British OSGDI Safeguard Mechanism

**2.2.1 Policies and Regulations** In 2000, Britain passed the *Freedom of Information Act 2000*, providing legal basis for public access to information [24], which was revised in 2012 to add dataset provisions and propose the “data right” concept. Policies include standards, licenses, plans, and action plans issued by bodies such as the Cabinet Office, HM Treasury, Department for Business, Innovation & Skills, Public Sector Transparency Board, Department for Communities and Local Government, National Archives, and Open Data Institute. Content covers strategy, planning, principles, responsibilities, scope, standards, licensing, privacy protection, and talent development. As shown in Table 2, main policies include:

- 2000: *Freedom of Information Act* – Provided legal basis for accessing public information [24]
- 2009: *Putting the Frontline First: Smarter Government* – Proposed public rights to free access [25]
- 2010: *UK Government Licensing Framework* – Provided policy support for information licensing [26]
- 2010: *Public Data Principles* – Established 14 principles for open data [27]
- 2011: *Open Data Consultation Statement* – Explained accountability and innovation value
- 2011: *Autumn Statement* – Proposed opening core public datasets
- 2011: *Innovation and Research Strategy for Growth* – Proposed establishing ODI, DSB, and PDG
- 2012: *Protection of Freedoms Act* – Added dataset provisions and “data right” concept
- 2012: *Open Standards Principles* – Defined open standards [29]
- 2013: *Open Data Charter* – Established 5 principles for data publication and use [30]
- 2014: *Open Data Roadmap for the UK 2015* – Detailed 2015 action plans [31]
- 2015: *Reuse of Public Sector Information Regulations* – Required machine-readable formats [32]
- 2015: *National Information Infrastructure Implementation Document* – Set 7 guiding principles [33]
- 2016: *UK Open Government National Action Plan 2016-2018* – Made commitments on core datasets [34]
- 2016: *Open Government Partnership: UK National Action Plan* – Involved central government strategic planning [35]

**2.2.2 Organizational System** Britain clearly defines all responsible institu-

tions: the Cabinet Office as the “lead agency,” all administrative departments as “responsible agencies,” and ODI [34], multilateral agencies, civil society, private sector, and working groups as “supervisory agencies,” forming an organic collaborative system. Specialized institutions handle different affairs: the Data Strategy Board (DSB) provides strategic planning and policy advice; the Public Data Group (PDG) researches policies and manages important datasets [36].

**2.2.3 Service Platform** Britain established the unified platform [data.gov.uk](http://data.gov.uk) for publishing open data. The platform can 统计 data usage and display it through visual charts. All published data is in reusable, machine-readable formats.

**2.2.4 Implementation and Supervision Feedback** Britain implements top-down cooperative mechanisms, with ODI as the coordinating body for inter-departmental collaboration and supervision. Britain emphasizes strategic planning, releasing national action plans every two years since 2011 [35]. Departments like Treasury, Defense, Justice, and Health regularly release their own open data strategies [39]. While emphasizing citizens’ “data rights,” Britain also requires public sectors to enhance privacy protection awareness, consulting privacy experts during data publication to avoid potential threats [36].

## 2.3 Chinese OSGDI Safeguard Mechanism

**2.3.1 Policies and Regulations** In 2004, the General Office of the CPC Central Committee and State Council issued *Several Opinions on Strengthening Information Resource Development and Utilization*. The *Regulations on Open Government Information of the People’s Republic of China* (2007, implemented 2008) defined scope, methods, procedures, and supervision. Issuing bodies are mainly the State Council; types include policies and plans rather than specialized laws. Some local regulations exist, such as Shanghai’s (2008) and Hubei’s (2015) provisions. The purpose is to promote law-based administration, build a “transparent government,” and enhance credibility. As shown in Table 3, main policies include:

- 2004: *Several Opinions on Strengthening Information Resource Development and Utilization* – Proposed accelerating government information resource development
- 2008: *Regulations on Open Government Information* – Defined basic principles, scope, methods, and supervision
- 2013: *Current Key Work Arrangements for Government Information Openness* – Identified 9 key areas
- 2015: *Key Points for Government Information Openness Work 2015* – Strengthened institutional mechanisms
- 2015: *Outline for Promoting Big Data Development* – Accelerated government and social data opening [40]
- 2016: *13th Five-Year Plan* – Promoted lawful opening of data resources [41]

- 2016: *National Informatization Development Strategy Outline* – Emphasized public information resource opening [42]
- 2016: *Interim Measures for Government Information Resource Sharing Management* – Accelerated interconnection and sharing
- 2016: *Guiding Opinions on Accelerating “Internet Plus Government Services”* – Improved service quality
- 2016: *13th Five-Year National Informatization Plan* – Prioritized data resource opening [43]

**2.3.2 Organizational System** A preliminary system has formed with the State Council as the lead, 各级政府 vertically coordinated, ministerial internal networks as the backbone, and professional institutions and social organizations participating. The system for government data information opening is in its infancy, with public service systems gradually improving.

**2.3.3 Platform Construction** In portal construction, Qingdao established China’s first government website in 1998. The central government portal launched in 2006. Government portals have become the main channel for information openness. In data platforms, Shanghai launched its government data service website in 2012, with 1,612 datasets covering 12 fields [44]. Beijing, Wuhan, and other provincial and city governments have also built platforms. The *Outline for Promoting Big Data Development* proposed establishing a unified national government data sharing exchange platform by the end of 2018 [40].

**2.3.4 Implementation and Supervision Feedback** “Internet Plus Government Services” has popularized online information openness, supervision, and citizen interaction, improving administrative efficiency. Governments have determined competent departments and strengthened institutionalization according to regulations. However, cross-departmental and cross-boundary integrated OSGDI mechanisms are not yet robust, with “information silos” and departmental interests remaining prominent.

## 3 Comparative Analysis of OSGDI Safeguard Mechanisms in China, America, and Britain

### 3.1 Similarities

- (1) **Emphasis on Policy and Legal Construction:** All three countries attach importance to OSGDI, issuing numerous laws, regulations, and policy documents. After America’s 2009 open data strategy, Britain followed with intensive measures, and China issued its *Outline for Promoting Big Data Development* in 2015. All have “open government information” laws or regulations as the initial legal foundation.
- (2) **Emphasis on Collaborative Organizational Systems:** Implementation bodies are mainly government departments with different functions, forming collaborative systems through inter-departmental coordination.

- (3) **Emphasis on Platform Construction:** All three value platform construction, improving data quality and services to enhance informatization capacity. Open data covers economic and livelihood fields like education, healthcare, and environment.
- (4) **Emphasis on Smooth Operating Mechanisms:** All three continuously improve implementation and cooperation mechanisms, emphasizing cross-departmental collaboration, supervision, and accountability to ensure free data flow and public accessibility.

### 3.2 Differences

- (1) **Policy and Regulation Focus:** America emphasizes legislation; Britain adapts existing laws through revisions and issues frequent policies with strong continuity; China lacks specialized legislation, focusing more on plans and policies with macro-level guidance but insufficient supporting measures.
- (2) **Organizational System Completeness:** America and Britain have diversified implementation bodies with specialized central coordinating agencies, execution bodies, supervisory bodies, think tanks, and participants. America's system involves legislative, executive, and judicial branches, forming checks and balances. China lacks specialized coordinating institutions, with limited participation from people's congresses, judicial departments, social organizations, and the public.
- (3) **Platform Construction and Data Standards:** America and Britain have built unified national platforms with standardized formats, quality, and services. China's infrastructure is relatively backward, lacking a unified national platform, facing challenges in data comprehensiveness, authenticity, quality, machine readability, and dynamic maintenance.
- (4) **Implementation and Supervision Mechanisms:** America's OIP and Britain's ODI coordinate inter-departmental cooperation and daily platform maintenance. America focuses on public accessibility, while Britain emphasizes data security. Both have relatively complete supervision mechanisms, whereas China's cross-boundary cooperation mechanisms are weak, supervision lags, and public participation is insufficient, particularly among farmers and urban low-income residents, creating a "data divide."

### 3.3 China's Outstanding Problems

- (1) **Lagging Laws and Standards:** Currently, only the *Regulations on Open Government Information* exist, with content focused on principle-level frameworks rather than big dataset opening. Existing policies are macro-level with insufficient operational detail. The scope is narrow, mainly

covering government departments without unified national standards for data resource development.

- (2) **Incomplete Organizational System:** Coordinating organizations have unclear functions, and various data-opening bodies lack legal recognition. Participation from people's congresses, judicial departments, social organizations, and think tanks is insufficient. The system remains at the principle and guidance level, lacking detailed standards and norms. "Fragmentation" of data constrains resource utility and increases social costs.
- (3) **Backward Platform Construction:** Data from government portals is scattered, incomplete, and underutilized. A unified national OSGDI platform is lacking. Local platforms show great variation in scope, type, scale, and quality. Missing standards and norms hinder quality assurance. Data "fragmentation" restricts resource utility and affects government credibility.
- (4) **Incomplete Implementation and Supervision Mechanisms:** Cross-departmental and cross-boundary integrated mechanisms are not robust, with "information silos" and departmental interests prominent. The quality and quantity of government information openness are limited, not yet reaching the level of data opening and sharing. Supervision mechanisms are weak, and public participation is low, particularly among disadvantaged groups, exacerbating the "data divide" and affecting comprehensive data analysis.

## 4 Implications

Based on China's national conditions and drawing on advanced practices from America and Britain, China should accelerate building its OSGDI safeguard mechanism in four aspects to meet the "Cyber Power" and "Digital China" strategic requirements:

- (1) **Improve Regulations and Standards:** Accelerate legislation and quality standards for OSGDI that align with big data development. Refine details on principles, strategies, opening fields, classification, quality, responsibilities, usage rights, security, privacy, evaluation, supervision, and talent development. Ensure strong operability while meeting national security requirements. Regularly evaluate and dynamically adjust policies to improve their quality and quantity while maintaining continuity.
- (2) **Perfect the Organizational System:** OSGDI is a systematic project requiring a systematic organizational system for maintenance and management. Drawing on developed countries' experiences, promote cross-departmental, cross-level, and cross-boundary cooperation. The State Council should play a leading role, improve the management system, clarify responsibilities, and integrate resources. Give full play to the legal review and supervision roles of people's congresses and judicial depart-

ments, and the advisory roles of research institutions, think tanks, and third-party organizations to achieve synergy.

- (3) **Construct an OSGDI Platform:** Establish a unified national government data co-construction and sharing database and platform to truly implement open government information systems. Clarify publication authority and responsibility for various data types, achieve cross-departmental interconnectivity, break down “information silos,” and enhance transparency and interaction. Promote “information digitization,” improve standardization and efficient management, unify technical standards for data formats and metadata, and ensure high-quality data throughout the entire process from collection to public acquisition.
- (4) **Explore Operating Mechanisms:** Achieve unified government data resource management, accelerate big data infrastructure construction, and transform massive government information into data resources. Improve government transparency and explore cross-departmental and cross-boundary cooperation mechanisms to achieve positive interaction between data publication, organization, acquisition, utilization, and the open sharing database. Encourage enterprises, individuals, and social organizations to develop data application technologies to improve big data analysis efficiency and promote industrial development. Balance data opening with privacy protection, and strengthen talent development in big data technology, operation management, and privacy protection.

## References

- [1] STENSAKER IG, GOODERHAM PN. Designing global leadership development programmes that promote social capital and knowledge sharing[J]. *European journal of international management*, 2015, 9(4): 442-462.
- [2] Zhao Shukuan, Sun Yanming, Zhang Fujun, et al. Research on government data open sharing model based on cross-boundary integration[J]. *Library and Information Service*, 2018, 62(12): 21-29.
- [3] Cai Shijie, Xia Yixuan. Comparative analysis of open government data strategies in developed countries[J]. *E-Government*, 2015(7): 17-26.
- [4] Cheng Yingui, Lai Tong. Policy and legal guarantee of New Zealand government data opening and its enlightenment to China[J]. *Library and Information Service*, 2016, 60(19): 15-23.
- [5] Zheng Lei, Gao Feng. Research on China’s open government data platform: Framework, status and suggestions[J]. *E-Government*, 2015(7): 8-16.
- [6] Huang Ruhua, Miao Miao. Security protection countermeasures for China’s government open data[J]. *E-Government*, 2017(5): 28-36.
- [7] Yue Lixin, Liu Wenyun. Research on the construction of guarantee mechanism for China’s government data opening[J]. *Library and Information Service*, 2016, 60(19): 40-48, 39.
- [8] Chen Mei. Research on the guarantee mechanism of American open government data[J]. *Journal of Intelligence*, 2013(7): 148-153.

- [9] Open data barometer[EB/OL]. [2017-11-15]. <http://opendatabarometer.org/data-explorer/?{year}=2015&indicator=>
- [10] *The federal government information resources management policies*[EB/OL]. [2017-12-06]. <https://www.whitehouse.gov/omb/circulars/{a130}{a130trans4}>.
- [11] *Circular A-130*[EB/OL]. [2017-10-05]. <https://a130.cio.gov/a130/>.
- [12] Song Lirong, Peng Jie. Introduction and enlightenment of U.S. government “Information Quality Act”[J]. *Journal of Intelligence*, 2012(2): 176-180.
- [13] *The open government partnership national action plan for the United States of America*[EB/OL]. [2017-10-06]. <https://www.whitehouse.gov/>.
- [14] Office of management and budget. Memorandum on open data policy—managing information as an asset[EB/OL]. [2017-12-10]. <https://project-open-data.cio.gov/policy-memo/>.
- [15] *Open government data acts. 2852114th cong.*[EB/OL]. [2017-10-24]. <https://www.whitehouse.gov/>.
- [16] *The federal big data research and development strategic plan*[EB/OL]. [2018-01-09]. <http://www.sic.gov.cn/News/251/7883.htm>.
- [17] Presidential memorandum, implementing management reform[EB/OL]. [2017-10-09]. <https://www.whitehouse.gov/>.
- [18] *The mission and structure of the office of management and budget*[EB/OL]. [2017-10-09]. <https://www.whitehouse.gov/>.
- [19] Cai Jingxuan, Huang Ruhua. Policy and legal guarantee of U.S. government data opening and its enlightenment to China[J]. *Library and Information*, 2017(1): 10-17.
- [20] *Organization, mission and functions manual: office of information policy*DOJ|Department of justice[EB/OL]. [2017-10-09]. <https://www.justice.gov/jmd>.
- [21] Office of management and budget. data.gov concept of operation[EB/OL]. [2017-10-10]. <https://www.data.gov/sites/default/files/attachments>.
- [22] *Open government working group*[EB/OL]. [2017-11-19]. <https://www.whitehouse.gov/>.
- [23] Zhu Lin, Zhang Xin. Research on U.S. government data opening policy and practice[J]. *Journal of Intelligence*, 2017(4): 98-105, 176.
- [24] *Freedom of information act 2000*[EB/OL]. [2017-11-25]. <http://www.legislation.gov.uk/ukpga/2000/36/com>
- [25] *Putting the frontline first: smarter government*[EB/OL]. [2017-10-25]. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/228889/7753.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228889/7753.pdf).
- [26] UK government licensing framework[EB/OL]. [2017-10-25]. <http://www.nationalarchives.gov.uk/information-management/reusing-public-sector-information/licensing-for-reuse/ukglf/>.
- [27] Public sector transparency board: public data principles[EB/OL]. [2017-10-25]. [https://data.gov.uk/sites/default/files/Public%20Data%20Principles\\_{For}%20Data.Gov%20\(1\)](https://data.gov.uk/sites/default/files/Public%20Data%20Principles_{For}%20Data.Gov%20(1)).
- [28] Innovation and research strategy for growth[EB/OL]. [2017-10-25]. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/32450/11-1387-innovation-and-research-strategy-for-growth.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32450/11-1387-innovation-and-research-strategy-for-growth.pdf).
- [29] Open standards principles[EB/OL]. [2017-10-25]. <https://www.gov.uk/government/publications/open-standards-principles/open-standards-principles#open-standards-principles>.
- [30] G8 open data charter[EB/OL]. [2017-10-25]. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/228889/7753.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228889/7753.pdf)
- [31] *Open data roadmap for the UK 2015*[EB/OL]. [2017-10-25]. <http://theodi.org/roadmap-uk-2015>.
- [32] *The reuse of public sector information regulations 2015*[EB/OL]. [2017-10-

- [25]. <http://www.legislation.gov.uk/uksi/2015/1415/contents/made>.
- [33] *The national information infrastructure (NII) implementation document*[EB/OL]. [2017-10-25]. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/)
- [34] *UK open government national action plan 2016-18*[EB/OL]. [2017-10-25]. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/522781/UK\\_{{open}}{{gov](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/522781/UK_{{open}}{{gov)  
18.pdf.
- [35] *Open data roadmap for the UK 2015*[EB/OL]. [2017-10-25]. <http://theodi.org/roadmap-uk-2015>.
- [36] Huang Ruhua, Liu Long. *Policy and legal guarantee of UK government data opening and its enlightenment to China*[J]. *Library and Information*, 2017(1): 1-9.
- [37] *A letter from Prime Minister David Cameron to government departments on plans to open up government data*[EB/OL]. [2017-09-15]. <https://www.gov.uk/government/news/letter-to-government-departments-on-opening-up-data>.
- [38] *Further detail on open data measures in the autumn statement 2011*[EB/OL]. [2017-10-15]. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/)
- [39] *Open data strategies*[EB/OL]. [2017-10-15]. <https://data.gov.uk/open-data-strategies>.
- [40] *State Council. Notice on issuing the outline for promoting big data development*[EB/OL]. [2017-10-18]. [http://www.gov.cn/zhengce/content/2015-09/05/content\\_10137.htm](http://www.gov.cn/zhengce/content/2015-09/05/content_10137.htm).
- [41] *The 13th Five-Year Plan for National Economic and Social Development of the People's Republic of China*[EB/OL]. [2017-10-18]. [http://www.npc.gov.cn/npc/dbdhhy/12\\_4/2016-03/18/content\\_1985670.htm](http://www.npc.gov.cn/npc/dbdhhy/12_4/2016-03/18/content_1985670.htm).
- [42] *General Office of the CPC Central Committee and State Council. National Informatization Development Strategy Outline*[EB/OL]. [2017-10-18]. [http://news.xinhuanet.com/fortune/2016-07/27/c\\_1119291902.htm](http://news.xinhuanet.com/fortune/2016-07/27/c_1119291902.htm).
- [43] *State Council. Notice on issuing the 13th Five-Year national informatization plan*[EB/OL]. [2017-10-18]. [http://www.gov.cn/zhengce/content/2016-12/27/content\\_5153411.htm](http://www.gov.cn/zhengce/content/2016-12/27/content_5153411.htm).
- [44] *Shanghai Government Data Service Website*[EB/OL]. [2017-10-18]. <http://www.datashanghai.gov.cn/home!toHomePage.action>.

**Author Contributions:** Sun Yanming conducted comparative research and wrote the paper; Zhao Shukuan established the research framework and guided revisions; Zhang Fujun sorted literature and conducted comparative analysis; Li Xia collected literature and data information.

*Note: Figure translations are in progress. See original paper for figures.*

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