



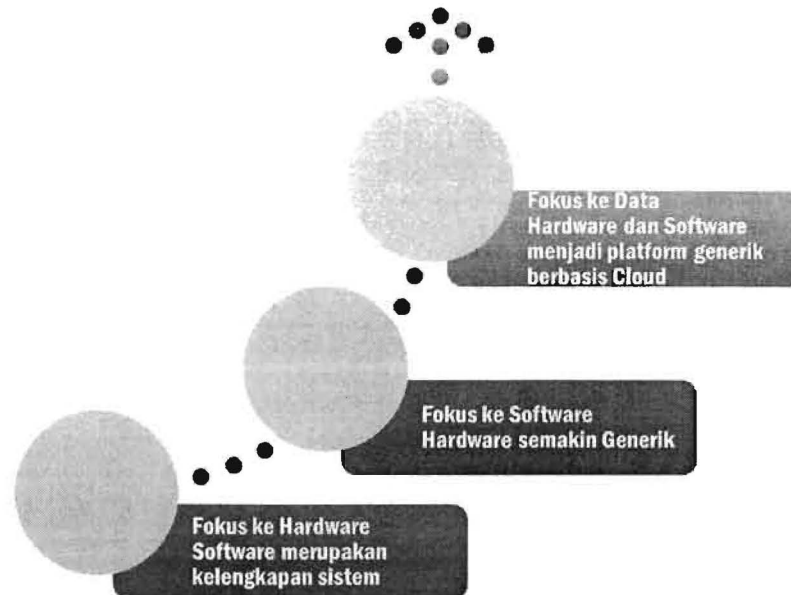
**PERLUNYA PENERAPAN
PRAKTEK MANAJEMEN DATA/INFORMASI
UNTUK MENINGKATKAN
KUALITAS INFORMASI INSTITUSI**

Arry Akhmad Arman
Direktorat STI ITB

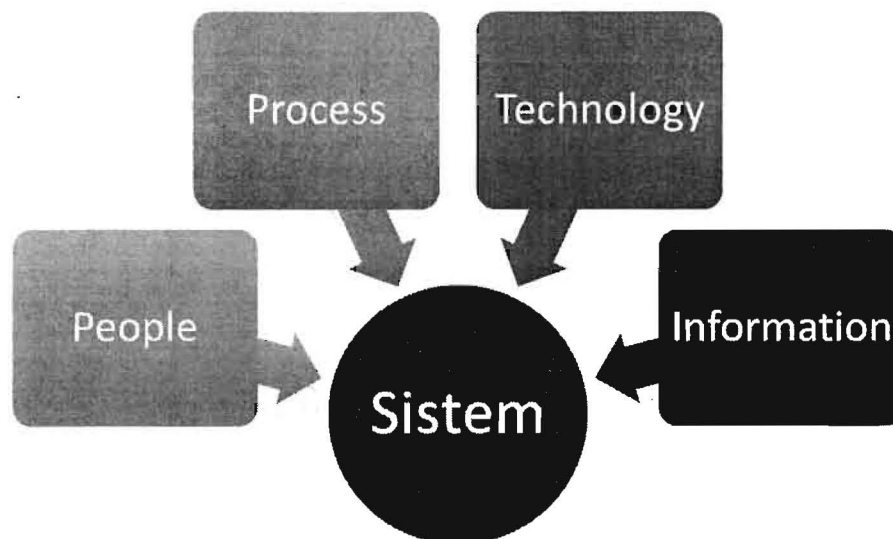


**Mengapa Manajemen Data
sangat penting dalam sebuah
organisasi?**

Pergeseran Fokus Penerapan Teknologi Informasi dalam Organisasi



Kelengkapan Sistem Berbasis Komputer

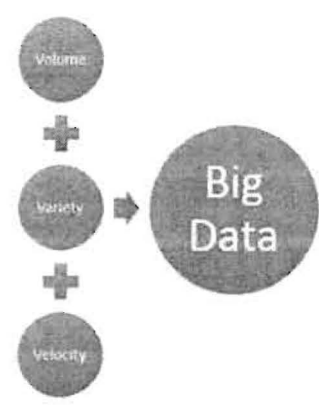




Big Data Analytic

Big Data

- Big data is a term for data sets that are so large or complex that traditional data processing applications are inadequate. Challenges include analysis, capture, data curation, search, sharing, storage, transfer, visualization, querying and information privacy.



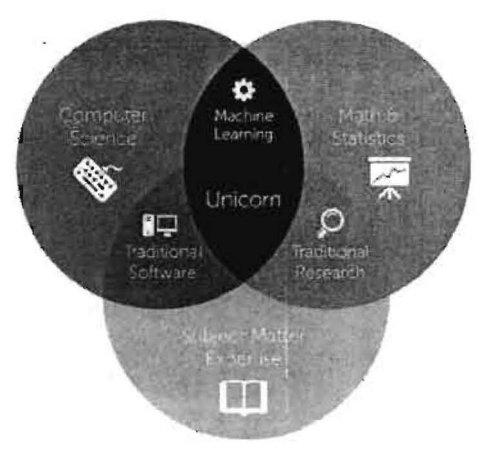
Big Data Analytic

- Big data analytics is the use of advanced **analytic** techniques against very large, diverse **data** sets that include different types such as structured/ unstructured and streaming/ batch, and different sizes from terabytes to zettabytes.

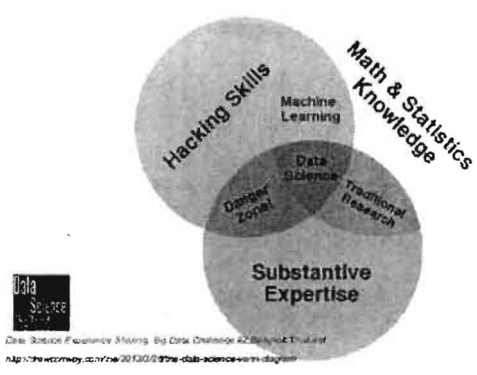
Data Science



Data Science



What is Data Science?



Data Science: The Science of Learning from Data. Dataschool 42, 2016. URL: <http://www.dataschool.io/2016/02/29/the-dab-science-venn-diagram/>

www.stanford.edu

Pusat knowledge serta kemajuan Science dan Teknologi



The screenshot shows the Stanford University homepage. The browser address bar displays "https://www.stanford.edu". The navigation menu includes "News", "Events", "Academics", "Research", "Health Care", "Campus Life", "Admission", and "About". The main content area features a large banner with the text "SCIENCE & TECHNOLOGY Speaking the brain's language to treat disease". Below the banner are four smaller images with captions: "MEDICINE Positive attitude toward math predicts math achievement", "SCIENCE & TECHNOLOGY Can we generate clean energy by using sunlight to superheat fluid?", "SCIENCE & TECHNOLOGY Sanitation Improves health but not stunted growth", and "SCIENCE & TECHNOLOGY A chemical cloak of invisibility could reveal RNA's secrets".

www.itb.ac.id

Masih didominasi berita kegiatan



The screenshot shows the Institut Teknologi Bandung (ITB) homepage. The browser address bar displays "https://www.itb.ac.id". The navigation menu includes "Beranda", "Tentang ITB", "Pencapaian", "Perkembangan", "Pelayanan dan Publikasi", and "Civitas". The main content area features a large banner with the text "ITB Lantik Ketua Program Studi dan Pegawai ITB Non-PNS". Below the banner is a large image of a group of people in a meeting or conference setting.

Belum sepenuhnya Bahasa Inggris



The screenshot shows the ITB International Program Admission website. The main heading is "International Program Admission". Below it, there are navigation links for "International Transfer Program", "Student Exchange", "Study Program", and "Penerimaan Mahasiswa Baru ITB". The "Student Exchange" section is highlighted. It contains the following text:

Insitut Teknologi Bandung (ITB) offers an Student-Exchange program, aimed at students from partner institutions that have concluded academic exchange agreements and a memorandum of understanding regarding student exchanges. If you are a student from one of ITB's partner institutions who wishes to pursue an exchange at ITB, after confirming that your current university is in partnership with ITB, you should prepare the required documents and submit them via ITB Directorate of Student Enrollment Management and Education Cooperation.

Application of ITB Student-Exchange Program for academic semester January - June 2018 will be started on September 25th, 2017, 17.00 Western Indonesian Time to October 27th, 2017.

The following are detailed documents you should prepare for Student Exchange Program application :

1. Cover letter from home university, should contain information about:
 1. An endorsement for the applying student to take exchange program
 2. Information on Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA) to which the exchange program is based including the reference

Error!



The screenshot shows a website with a security warning from Wordfence. The warning text is:

Warning: fopen(): https:// wrapper is disabled in the server configuration by allow_url_fopen=0 in /home/icwtconf/public_html/wp-content/plugins/wordfence/vendor/wordfence/wf-waf/src/lib/http.php on line 409

Warning: fopen(https://noc4.wordfence.com/v1.8/?action=get_waf_rules&k=879d011a971c1b57c627dc580338491a440e44ee1e82b4df100f5c603b2f05774b14be8750d9f17a58cab72319cd2be9f6343cf7a1095b53513bee6ae9a302563conference.org&h=http%3A%2F%2Ficwt-conference.org&openssl=1&betaFeed=0): failed to open stream: no suitable wrapper could be found in /home/icwtconf/public_html/wp-content/plugins/wordfence/vendor/wordfence/wf-waf/src/lib/http.php on line 409

Warning: fopen(): https:// wrapper is disabled in the server configuration by allow_url_fopen=0 in /home/icwtconf/public_html/wp-content/plugins/wordfence/vendor/wordfence/wf-waf/src/lib/http.php on line 409

Warning: fopen(https://noc4.wordfence.com/v1.8/?action=get_malware_signatures&k=879d011a971c1b57c627dc580338491a440e44ee1e82b4df100f5c603b2f05774b14be8750d9f17a58cab72319cd2be9f6343cf7a1095b53513bee6ae9a302563conference.org&h=http%3A%2F%2Ficwt-conference.org&openssl=1&betaFeed=0): failed to open stream: no suitable wrapper could be found in /home/icwtconf/public_html/wp-content/plugins/wordfence/vendor/wordfence/wf-waf/src/lib/http.php on line 409

INTERNATIONAL CONFERENCE ON WIRELESS AND TELEMATICS

ONE OF SEB ITB CONFERENCE SERIES

HOME SAMPLE PAGE



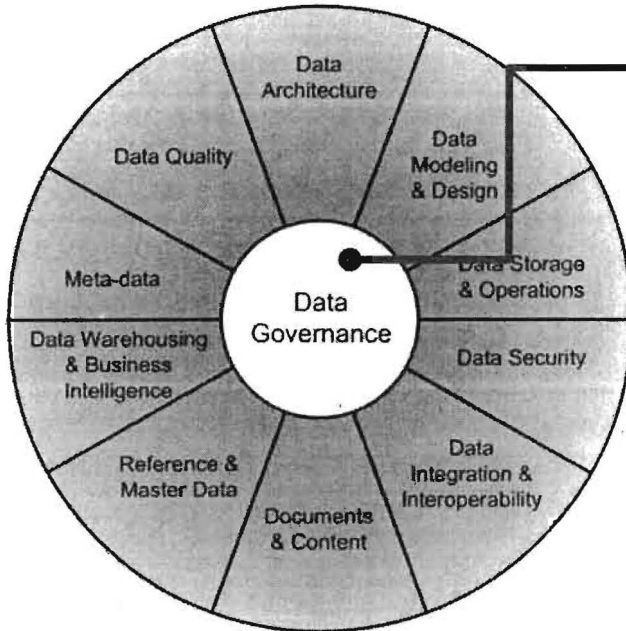
Information Quality

- Intrinsic IQ: accuracy, objectivity, Believability, reputation
- Contextual IQ: relevance, value-added, Timeliness, Completeness, amount of information
- Representational IQ: interpretability, format, coherence, compatibility^[4]
- Accessibility IQ: accessibility, access security



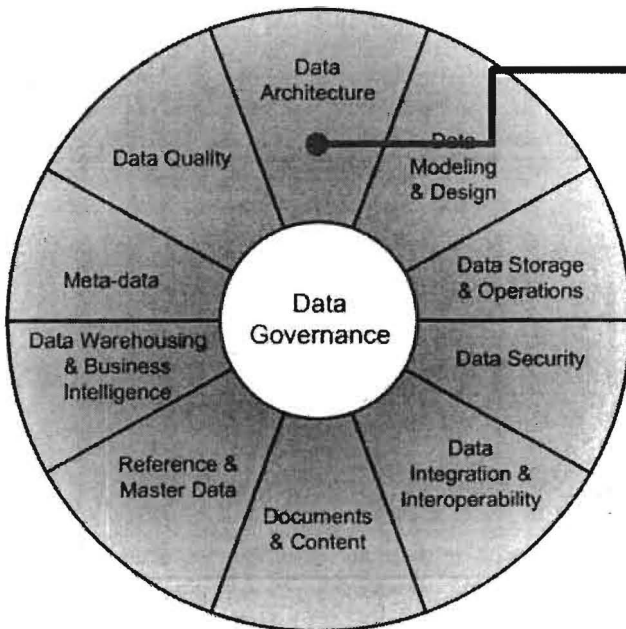
Referensi Praktis Manajemen Data

Kegiatan-Kegiatan Data Management



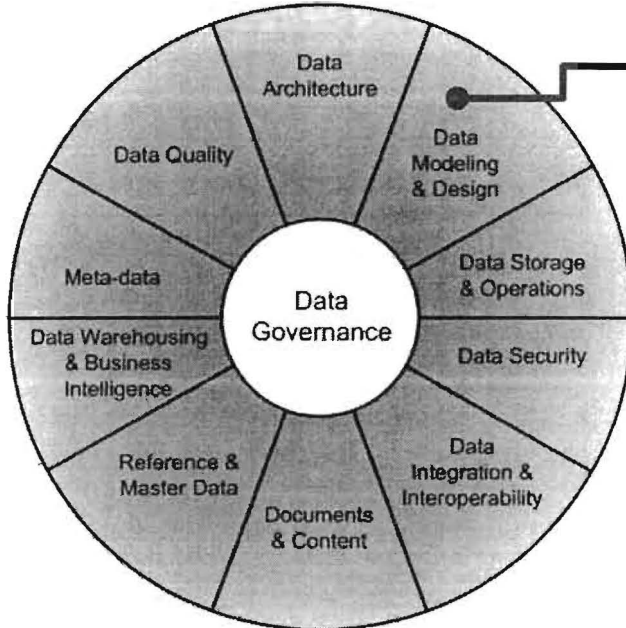
• **Data Governance** – planning, oversight, and control over management of data and the use of data and data-related resources. While we understand that governance covers ‘processes’, not ‘things’, the common term for Data Management Governance is Data Governance, and so we will use this term.

Kegiatan-Kegiatan Data Management



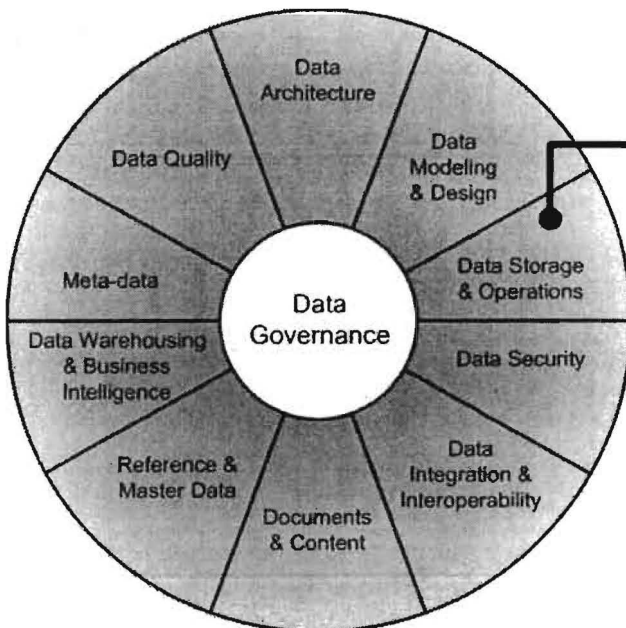
• **Data Architecture** – the overall structure of data and data-related resources as an integral part of the enterprise architecture

Kegiatan-Kegiatan Data Management



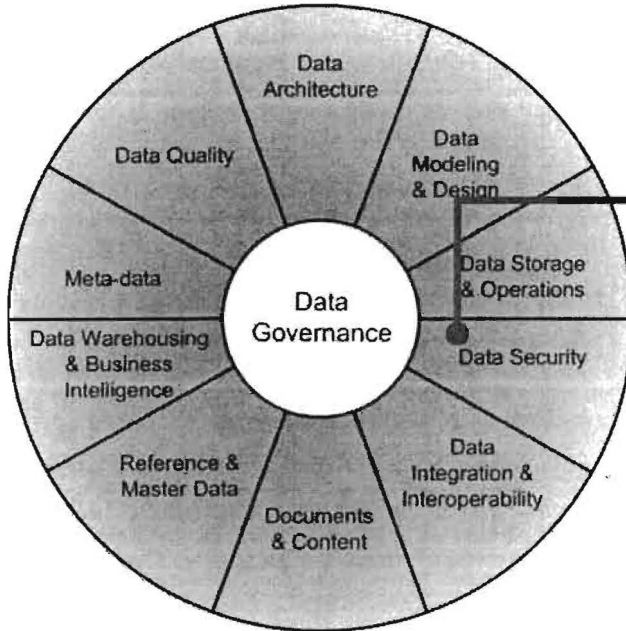
- **Data Modeling & Design** – analysis, design, building, testing, and maintenance (was Data Development in the DAMA-DMBOK 1st edition)

Kegiatan-Kegiatan Data Management



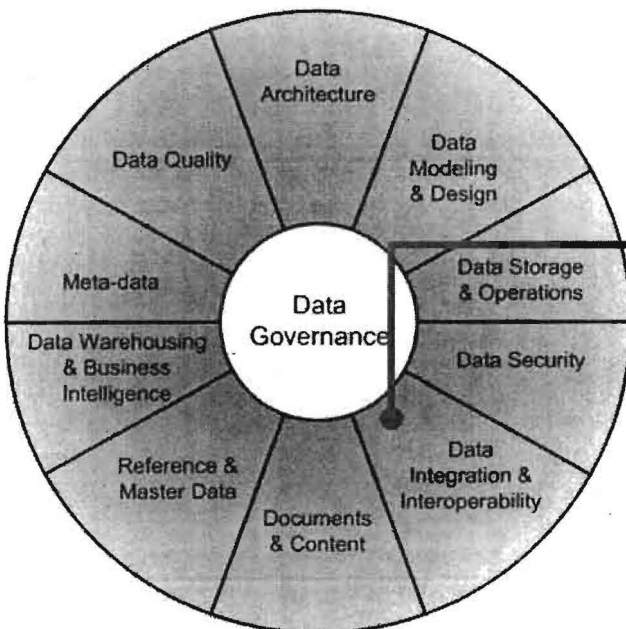
- **Data Storage & Operations** – structured physical data assets storage deployment and management (was Data Operations in the DAMA-DMBOK 1st edition)

Kegiatan-Kegiatan Data Management



- **Data Security** – ensuring privacy, confidentiality and appropriate access

Kegiatan-Kegiatan Data Management



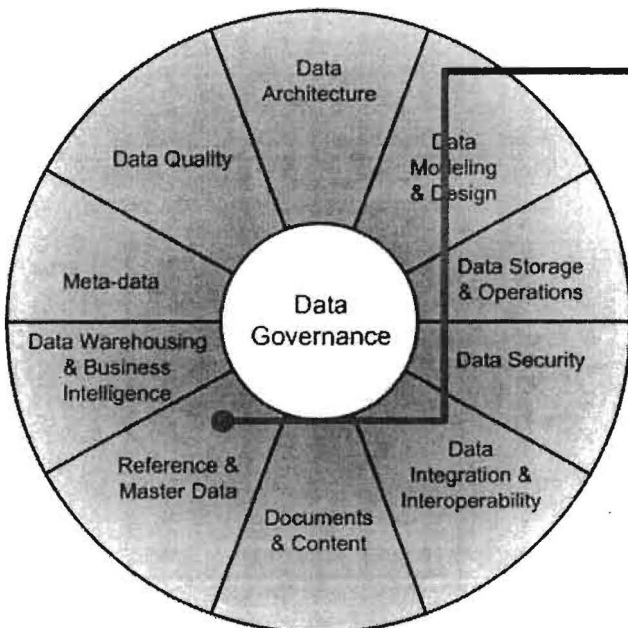
- **Data Integration & Interoperability** – acquisition, extraction, transformation, movement, delivery, replication, federation, virtualization and operational support (a Knowledge Area new in DMBOK2)

Kegiatan-Kegiatan Data Management



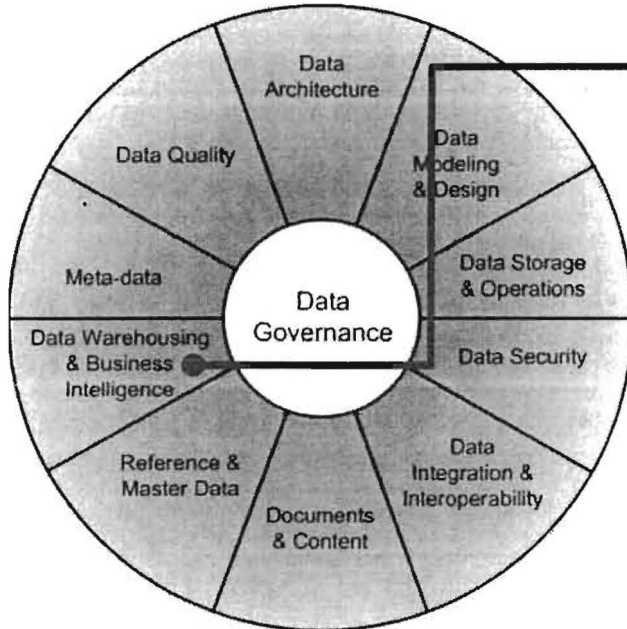
- **Documents & Content** – storing, protecting, indexing, and enabling access to data found in unstructured sources (electronic files and physical records), and making this data available for integration and interoperability with structured (database) data.

Kegiatan-Kegiatan Data Management



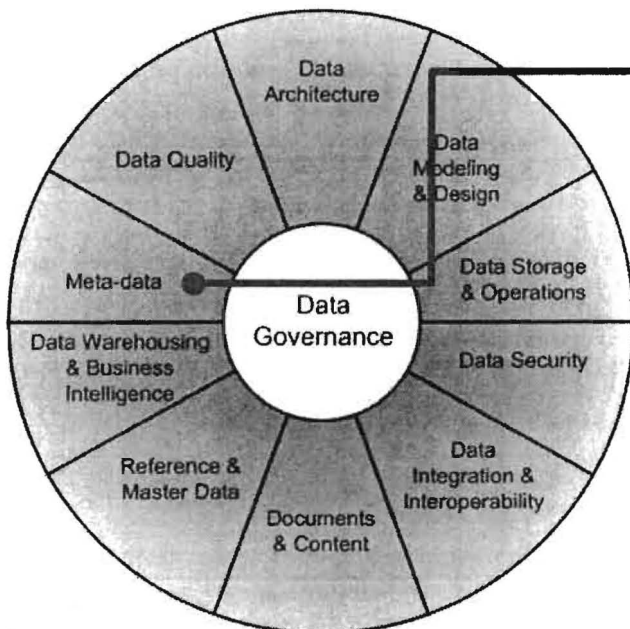
- **Reference & Master Data** – Managing shared data to reduce redundancy and ensure better data quality through standardized definition and use of data values.

Kegiatan-Kegiatan Data Management



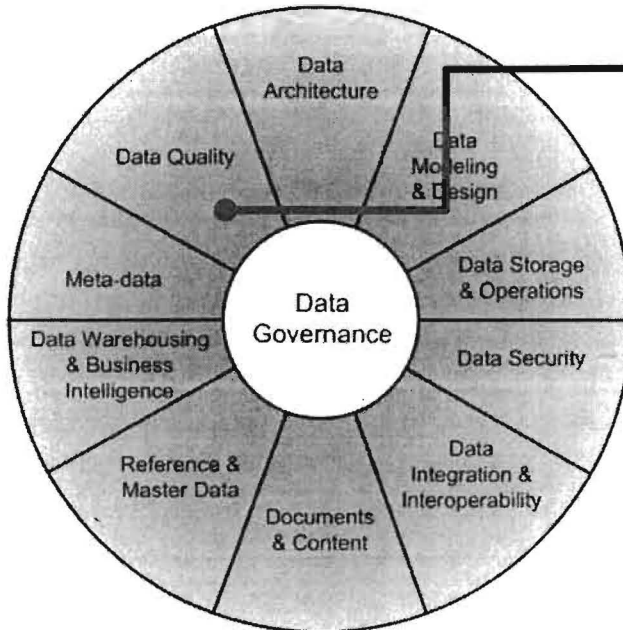
- **Data Warehousing & Business Intelligence** – managing analytical data processing and enabling access to decision support data for reporting and analysis

Kegiatan-Kegiatan Data Management



- **Metadata** – collecting, categorizing, maintaining, integrating, controlling, managing, and delivering metadata

Kegiatan-Kegiatan Data Management



- **Data Quality** – defining, monitoring, maintaining data integrity, and improving data quality



KIP, Webometric, dan Unirank

Unirank

MOZ Alexa SimilarWeb MAJESTIC
Domain Authority Social Rank Referring Domains Trust Flow



uniRank
University Ranking



- **uniRank™ (formerly 4 International Colleges & Universities or 4icu.org) is an international higher education directory reviewing accredited Universities and Colleges in the world. uniRank™ includes 13,000 Colleges and Universities, ranked by web popularity, in 200 countries.**

uniRank™ currently **includes** worldwide higher education institutions which satisfy the following requirements:

- are officially **recognized, licensed** and/or **accredited** by national or regional bodies such as Ministries of Higher Education or government recognized accrediting organizations.
- are officially licensed or authorised to grant at least **four-year undergraduate degrees** (Bachelor's Degrees) and/or **postgraduate degrees** (Master's and Doctoral Degrees).
- provide higher education courses mainly in a traditional **face-to-face learning format** delivered through on-site facilities. All University and College profiles are included and updated free of charge.

Indicators



- **MozRank** represents a link popularity score. It reflects the importance of any given web page on the Internet. Pages earn MozRank by the number and quality of other pages that link to them. The higher the quality of the incoming links, the higher the MozRank.
- **Alexa** ranks sites based primarily on tracking a sample set of internet traffic
- **Majestic Referring IP's**
 - A Referring IP refers to an IP address which hosts at least one website that contains a link to the given target URL or Domain.
- **Majestic Topical Trust Flow**
 - This is a Majestic feature which provides website categorization.

2018 Indonesian University Ranking Versi Unirank



2018 Indonesian University Ranking

Rank	University	Location
1	Universitas Gadjah Mada	Yogyakarta
2	Universitas Indonesia	Jakarta
3	Universitas Negeri Yogyakarta	Yogyakarta
4	Universitas Brawijaya	Malang
5	Institut Pertanian Bogor	Bogor
6	Universitas Diponegoro	Semarang
7	Universitas Sebelas Maret	Surabaya
8	Universitas Sumatera Utara	Medan
9	Institut Teknologi Bandung	Bandung
10	Universitas Wahid Hidayat	Sukoharjo
11	Universitas Padjadjaran Indonesia	Jakarta
12	Universitas Lambung	Indralaya, Palembang
13	Institut Teknologi Sepuluh Nopember	Surabaya
14	Universitas Negeri Semarang	Semarang
15	Universitas Bina Nusantara	Jakarta
16	Universitas Mulanudinawati Surakarta	Surakarta
17	Universitas Pangkajene	Seberang
18	Universitas Gunadarma	Jakarta
19	Universitas Negeri Malang	Malang
20	Universitas Mayjuna	Puduh

Webometric



- Presence : jumlah page yang dapat diambil atau di-index oleh mesin pencari terbesar. Data diambil dengan menggunakan Google (site:url). Bobot penilaian : 30%
- Impact : jumlah semua link dari situs luar yang menuju ke situs Unit Kegiatan Akademik. Data diambil dengan menggunakan Majestic (External Backlink). Bobot penilaian : 30%
- Openess : jumlah Rich Files (.pdf, .doc, .docx, .ppt) yang dipublikasikan dan dapat ditelusur di Google Scholar. Data diambil dengan menggunakan Google Scholar. Bobot penilaian : 30%
- Technology : menggunakan teknologi informasi terkini beserta elemen penunjangnya. Data diambil dengan menggunakan Nibbler. Bobot penilaian : 10%

Webometric Rank 2018



ranking	World Rank	University	Det.	Presence Rank*	Impact Rank*	Openness Rank*	Excellence Rank*
1	688	Universitas Indonesia	100%	111	402	1763	1707
2	924	Universitas Gadjah Mada	100%	47	519	767	1898
3	1235	Institut Teknologi Bandung / Institute of Technology Bandung	100%	462	932	1655	1866
4	1462	Institut Pertanian Bogor / Bogor Agricultural University	100%	45	859	2041	2521
5	1825	Universitas Syiah Kuala	100%	701	1411	2738	2613
6	2122	Universitas Padjadjaran Bandung	100%	347	1401	2126	3346
7	2502	Universitas Hasanudin	100%	823	2547	3173	3266
8	2579	Universitas Riau	100%	1046	2306	3434	2932
9	2647	Universitas Brawijaya	100%	103	777	9593	3229
10	2853	Universitas Diponegoro	100%	183	619	9593	3716
11	2902	Universitas Airlangga	100%	57	1756	2242	4532
12	2996	Universitas Pendidikan Indonesia	100%	234	1356	1706	4914
13	3231	Universitas Sebelas Maret UINS Surakarta	100%	135	694	9593	4279
14	3268	Universitas Udayana	100%	525	2361	9593	3229
15	3347	Institut Teknologi Sepuluh Nopember Surabaya	100%	500	1369	9593	3839

Keterbukaan Informasi Publik Success Story



- SITH dapat dijadikan sebagai percontohan karena telah memiliki SK PPID Fakultas lengkap disertai jabatan dan nama (score KIP SITH paling tinggi, jauh melampaui unit lain nya)



Penutup

- ITB perlu lebih serius mengelola informasi internal dan external (publikasi), baik dalam bahasa Indonesia, juga dalam bahasa Inggris
- ITB perlu melakukan inisiatif-inisiatif untuk meningkatkan praktek Manajemen Data di lingkungan ITB
- Praktek Manajemen Data dapat berdampak pada:
 - Ketersediaan informasi akurat setiap saat
 - Peningkatan kualitas informasi
 - Data Analitik untuk kebutuhan internal
 - Peningkatan Webometric dan reputasi ITB
 - Peningkatan tanggungjawab ITB kepada public dengan penyediaan informasi public yang lengkap dan berkualitas
- Praktek Manajemen Data perlu didukung oleh:
 - Tersedianya Tata Kelola Data (Data Governance)
 - Dukungan pejabat/staf serta organisasi di pusat maupun di setiap unit kerja yang secara khusus menjalankan fungsi Manajemen Data



Terima Kasih