

# Pandemi Covid 19: memaksimalkan Peran Pustakawan di Era Big Data

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Dipresentasikan pada Webinar Peran  
Pustakawan dan Perpustakaan dalam  
Situasi Pandemi COVID-19



# Ruang lingkup konsep pembahasan

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- Kondisi social pada masa pandemic Covid-19
- Big Data
- Peran pustakawan dalam masa lockdown disebabkan Covid-19
- Peran Pustakawan dalam era Big Data

# Akibat pandemi COVID-19

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- Bekerja dari Rumah (*work from home*)
- Belajar dari Rumah (*study from home*)
- Pelayanan dari Rumah (*service from home*)
- Ledakan informasi terasa semakin meningkat dalam berbagai bentuk dan sumber, khususnya melalui sarana media social
- Memaksa kita beradaptasi dengan perubahan

**BIG DATA**

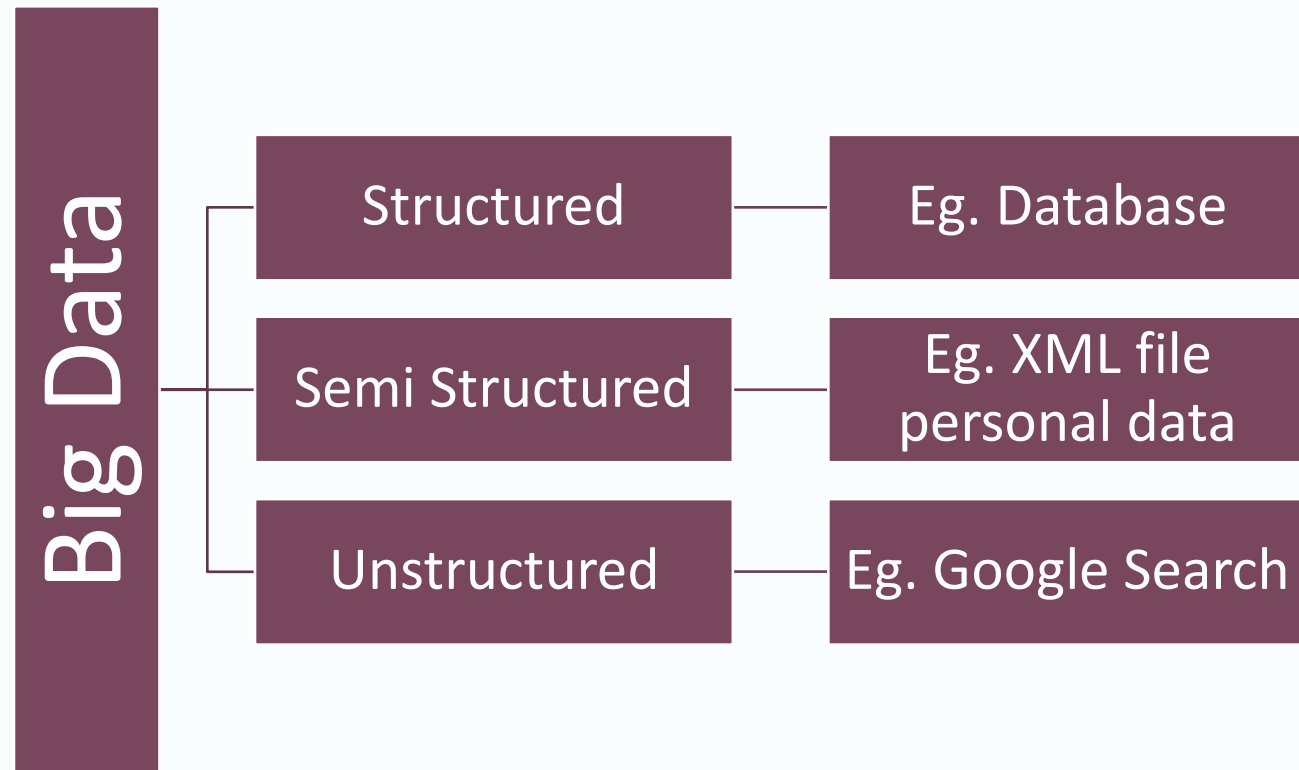
# Big Data

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- Big data adalah istilah yang menggambarkan volume besar data – baik terstruktur maupun tidak terstruktur – yang membanjiri bisnis sehari-hari. ([https://www.sas.com/id\\_id/insights/big-data/what-is-big-data.html](https://www.sas.com/id_id/insights/big-data/what-is-big-data.html))
- Simply put, Big Data refers to large data sets that are computationally analysed to reveal patterns and trends relating to a certain aspect of the data. (<https://www.kdnuggets.com/2018/03/5-things-big-data.html>)

# Berbagai Bentuk Big Data

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# Karakteristik Big Data

## 40 ZETTABYTES

[ 43 TRILLION GIGABYTES ]  
of data will be created by 2020, an increase of 300 times from 2005

6 BILLION PEOPLE  
have cell phones



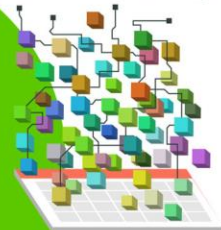
WORLD POPULATION: 7 BILLION

## Volume SCALE OF DATA



## It's estimated that 2.5 QUINTILLION BYTES

[ 2.3 TRILLION GIGABYTES ]  
of data are created each day



Most companies in the U.S. have at least 100 TERABYTES

[ 100,000 GIGABYTES ]  
of data stored

## The FOUR V's of Big Data

From traffic patterns and music downloads to web history and medical records, data is recorded, stored, and analyzed to enable the technology and services that the world relies on every day. But what exactly is big data, and how can these massive amounts of data be used?

As a leader in the sector, IBM data scientists break big data into four dimensions: **Volume, Velocity, Variety and Veracity**

Depending on the industry and organization, big data encompasses information from multiple internal and external sources such as transactions, social media, enterprise content, sensors and mobile devices. Companies can leverage data to adapt their products and services to better meet customer needs, optimize operations and infrastructure, and find new sources of revenue.

By 2015  
4.4 MILLION IT JOBS  
will be created globally to support big data,  
with 1.9 million in the United States



As of 2011, the global size of data in healthcare was estimated to be

150 EXABYTES  
[ 161 BILLION GIGABYTES ]



30 BILLION  
PIECES OF CONTENT  
are shared on Facebook  
every month



## Variety DIFFERENT FORMS OF DATA



By 2014, it's anticipated there will be  
420 MILLION  
WEARABLE, WIRELESS  
HEALTH MONITORS

4 BILLION+  
HOURS OF VIDEO  
are watched on  
YouTube each month



400 MILLION TWEETS  
are sent per day by about 200  
million monthly active users



The New York Stock Exchange captures

1 TB OF TRADE  
INFORMATION  
during each trading session



## Velocity ANALYSIS OF STREAMING DATA



Modern cars have close to 100 SENSORS  
that monitor items such as  
fuel level and tire pressure

By 2016, it is projected there will be

18.9 BILLION  
NETWORK  
CONNECTIONS

— almost 2.5 connections  
per person on earth



1 IN 3 BUSINESS  
LEADERS

don't trust the information  
they use to make decisions



Poor data quality costs the US  
economy around

\$3.1 TRILLION A YEAR



27% OF  
RESPONDENTS

## Veracity UNCERTAINTY OF DATA

in one survey were unsure of  
how much of their data was  
inaccurate



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– M Brain

# Mengapa *Big Data* penting?

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- Organisasi atau lembaga dapat memanfaatkannya diluar apa yang dipikirkan sementara mengambil keputusan
- Meningkatkan layanan kepada pelanggan
- Identifikasi awal resiko produk/layanan, jika ada
- Efisiensi operasional yang lebih baik





# 4 cara meningkatkan Perpustakaan di era Big Data

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- Meningkatkan pengalaman pengguna
- Big Data dapat meningkatkan efisiensi dan memberikan pandangan baru
- Big data dapat mengamankan jaringan dari penyelundupan potensial (potential hacks)
- Meningkatkan kemampuan pustakawan untuk menelusur dan menemukan informasi
- (<https://www.techsoupcanada.ca/en/community/blog/4-ways-libraries-can-improve-with-ai-big-data>)

# Peran pustakawan dalam era COVID-19

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- a) To promote public health awareness by creating and disseminating information relating to preventive measures;
- b) To support research team, researchers and faculty by providing information regarding the latest developments, research and literature;
- c) To meet the core needs of regular library users.  
*(PDF) The COVID-19 (Coronavirus) Pandemic: Reflections on the Roles of Librarians and Information Professionals.*
- Conduct information literacy programs .
- Available from: [https://www.researchgate.net/publication/340466106\\_The\\_COVID-19\\_Coronavirus\\_Pandemic\\_Reflections\\_on\\_the\\_Roles\\_of\\_Librarians\\_and\\_Information\\_Professionals](https://www.researchgate.net/publication/340466106_The_COVID-19_Coronavirus_Pandemic_Reflections_on_the_Roles_of_Librarians_and_Information_Professionals) [accessed May 10 2020].



# promote public health awareness

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- Importance of Social Distancing
- Possible Implementation of Quarantine Measures
- Advice on How to Avoid Misinformation



# To support research team, Researchers and Academic Faculty

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- Librarians can support medical staff, academics, research teams and para medical staff by drawing attention to the latest developments regarding vaccination, diagnosis kits, and relevant studies published in medical journals. All the well-known databases provide free access to articles relating to COVID-19 (Coronavirus)  
*(PDF) The COVID-19 (Coronavirus) Pandemic: Reflections on the Roles of Librarians and Information Professionals.* Available from:  
<https://www.researchgate.net/publication/340466106> The COVID-19 Coronavirus Pandemic Reflections on the Roles of Librarians and Information Professionals [accessed May 10 2020].



# Maintain Core Library Services for Users

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- To provide virtual support to their users, such as provision of references, document delivery, literature searches, and systematic reviews. Some libraries have initiated online webinar and sessions to keep in touch with their users via Google Classroom, Google Hangouts, Skype, or Zoom.

*(PDF) The COVID-19 (Coronavirus) Pandemic: Reflections on the Roles of Librarians and Information Professionals.* Available from:

<https://www.researchgate.net/publication/340466106> [The COVID-19 Coronavirus Pandemic Reflections on the Roles of Librarians and Information Professionals](#) [accessed May 10 2020].

# Information Service Delivery

- Layanan penyediaan informasi kepada pengguna secara virtual melalui berbagai media seperti email, WhatsApp, instagram, facebook, atau Twitter.
- Melaksanakan webinar terkait pemanfaatan koleksi sumber-sumber informasi yang dapat diakses oleh pengguna Perpustakaan.



The infographic is divided into two main sections. The top section has a teal background and features a circular illustration of a man in a blue shirt. To the right of the illustration, the text reads: 'Membutuhkan Artikel Jurnal Ilmiah Internasional Atau Publikasi Ilmiah Lainnya?'. The bottom section has a light green background and features a circular illustration of a hand holding a smartphone, with icons for email, WhatsApp, and a globe. To the right of this illustration, a speech bubble contains the text: 'Ajukan permohonanmu melalui **Whatsapp** atau **surel** dengan format :  
**Judul artikel**  
**Nama Penulis**  
**No. DOI**'. Below the speech bubble, there are two contact options: a WhatsApp icon with the number '0822-1374-0110' and an email icon with the address 'perpustakaan@kemdikbud.go.id'. The bottom of the infographic features a blue footer with social media icons for a globe, Facebook, Instagram, and Twitter, along with their respective handles: 'perpustakaan.kemdikbud.go.id', 'Perpustakaanindikbud', and 'Perpusdikbud'. Logos for 'Perpustakaan Indonesia' and 'perpustakaanindikbud' are also present in the top corners.

Membutuhkan  
**Artikel Jurnal Ilmiah Internasional**  
Atau Publikasi Ilmiah Lainnya ?

Ajukan permohonanmu melalui **Whatsapp** atau **surel** dengan format :  
**Judul artikel**  
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**No. DOI**

0822-1374-0110  
perpustakaan@kemdikbud.go.id

perpustakaan.kemdikbud.go.id Perpustakaanindikbud Perpusdikbud

# Beberapa contoh yang dikembangkan perpustakaan:

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- Virtual exhibition, eg. Bibliothèque nationale de France
- National Library of Spain is [promoting](#) its digital content
- The National Library of Morocco is providing [free eBooks](#),
- Public Library in Aarhus, Denmark, has put its digital content at the front of its [website](#),
- The [Granby library in Quebec, Canada](#) is highlighting content focused on learning new skills
- Building on its SimplyE app, [New York Public Library](#) is running online book clubs

Covid- 19  
is  
A Blessing in Disguise for everyone

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*Thank you*