

# EMBRACING THE DATA ECONOMY: WHAT IS AT STAKE FOR LEGAL ACADEMIA?

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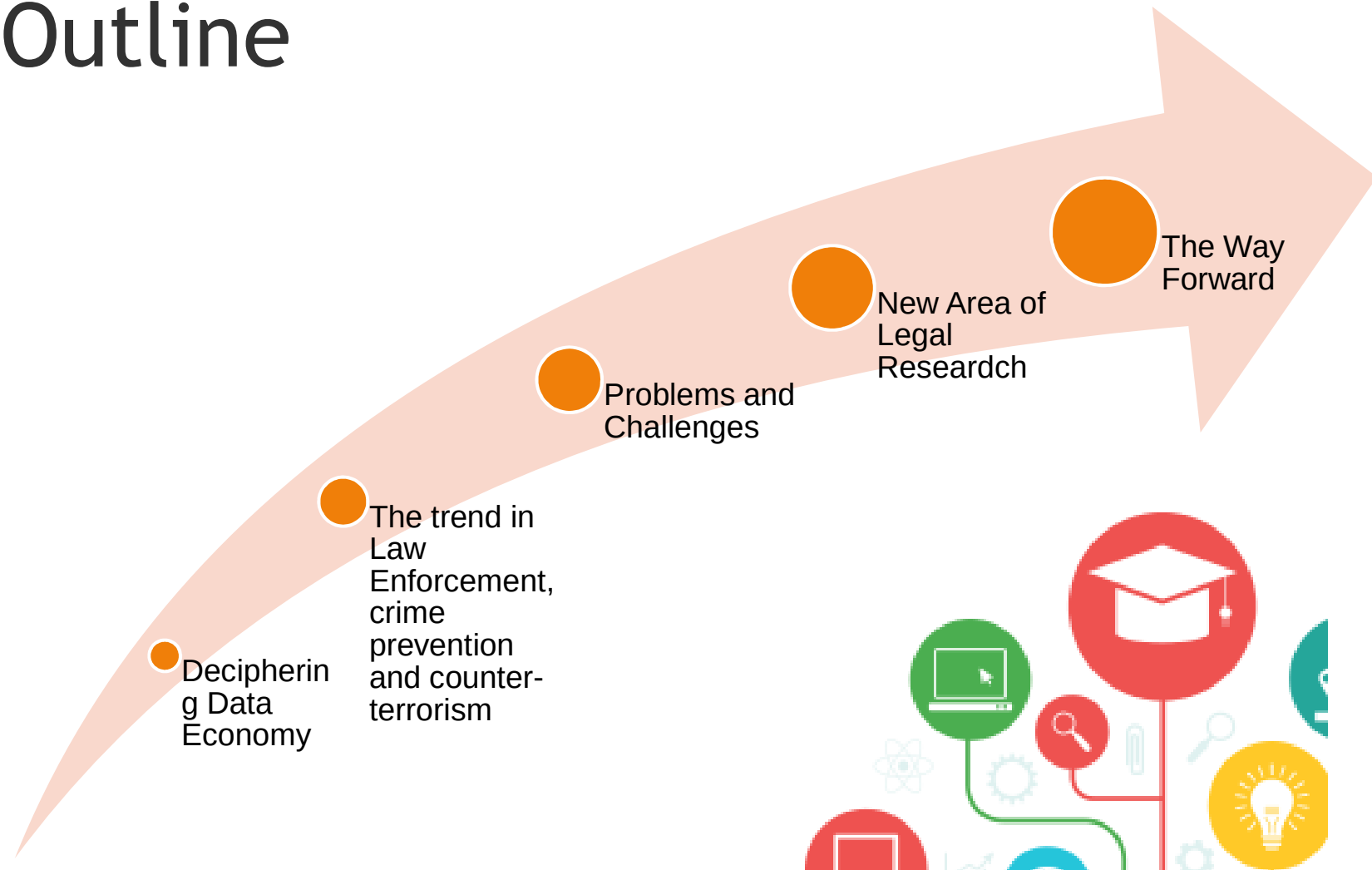
International Islamic University Malaysia

An aerial photograph of the International Islamic University Malaysia (IIUM) campus. The university's architecture is characterized by numerous buildings with bright blue-green roofs and a large central dome. A prominent minaret with a blue spire stands on the right side of the campus. The university is situated in a lush, green valley, with a dense forested mountain rising steeply in the background. A golf course is visible to the left of the main campus area. The sky is clear and bright.

**GREETINGS FROM THE  
INTERNATIONAL ISLAMIC  
UNIVERSITY MALAYSIA**

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# Outline



# “Data Economy”?

1. The (increase in the) availability of **data**, the related **business opportunities**, as well as the (potential) **social value** of the insights that can be generated.
2. Emphasises on the **economic impact** of the marketplace where digital data is exchanged as **products or services**.
3. The **ability** to collect and analyse significant volumes of data, from a variety of sources and at a **rapid pace** underpins the business models of a wide range of online activities derived from raw data.

# Data Economy and the Legal Concerns

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More business transactions are conducted online

Personal information is massively processed for critical assessments (financial, security, medical, etc.)

Human judgment is replaced by AI/Robot

Current law is incapable or incapacitated





# All of the data created in 2018 is equal to

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**33 zettabytes** Total data created worldwide in 2018



standard Blu-ray  
discs (50 gigabytes)



of the world's largest  
hard drive (currently  
100 terabytes\*)



human brains  
(1 petabyte\*\*)



of the  
super  
storage  
(250 p



## FEATURES AND CHALLENGES

1. Massive use of Big Data
2. Internet of things - Gadget
3. Synchronisation of Data
4. Digital traces - Privacy
5. Data Obesity-Excess of data inflation
  - ✓ More data gathering, less data intelligence?
  - ✓ Information, disinformation, mal-information, misinformation





## LAW IN THE INFORMATION ERA

1. Evolution of the Law-making process
2. Law enforcement and crime prevention
3. Legal reform: New Wine and New Bottle?
4. More collaborative, less restrictive (multi-stakeholderism, multi-jurisdiction)

## 360-degree view of the customer

100s  
of terabytes

Catalina Marketing discovered how faster, better analysis transformed hundreds of terabytes of customer data into actionable insights to develop highly targeted, personalized offerings.

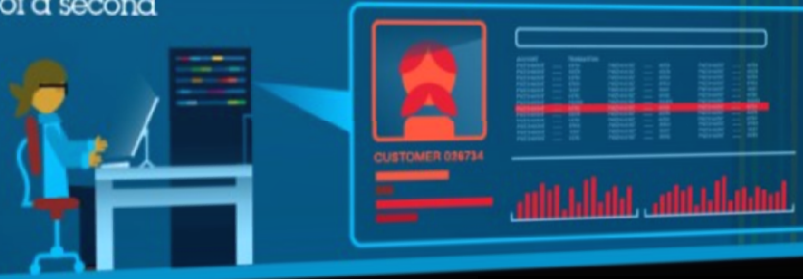


Harness the Power of Big Data

## Help to prevent threat and fraud

1/14  
of a second

TerraEchos used streaming data technology to detect, classify, locate, track and deter potential threats, reducing data processing times from hours to just one-fourteenth of a second.



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## Harness the power of big data to generate sustainable value

We are experiencing the creation of an economy powered by a new business resource: big data. Although most assets are depleted with use, data is self-perpetuating. Leading organizations are leveraging big data through a strategic analytics approach to achieve sustainable marketplace advantage and create entirely new business models.

New opportunities bring new challenges. You need to find a clearly defined and strategic starting point. Hire the right people and build the right skills to help ensure that your team is capable of harnessing and analyzing all available information. And deploy scalable big data technologies to relieve IT budget pressures and minimize information complexity.

What if you could extend customer views by incorporating additional data? Analyze social media to uncover consumer sentiment. Understand how customers prefer to shop, what makes them buy what they buy next, why they switch. And what leads them to make product recommendations.

What if you could apply analytics to new sources of data for greater infrastructure efficiency or to monetize existing data? Leverage new sensor data with real-time access to existing data to gain new visibility into operations, transactions, customer behavior, and help avoid service outages.

What if you could explore and mine big data to find what is relevant to the business for better decision making? Provide people with access to information stored in many different systems and silos, empowering them to optimize decision making and streamline daily processes.

What if you could enhance traditional solutions to prevent threats and fraud by leveraging all available sources of big data? Process and analyze new types of underleveraged data to significantly improve intelligence, security and law enforcement insight.

What if you could cost-effectively add new sources of valuable data to already existing data warehouse investments? Optimize storage and provide queryable archives by effectively determining which data should be warehoused and which data should be offloaded from warehouse and application databases.

Learn how organizations are harnessing big data at: [ibm.com/bigdataeconomy](http://ibm.com/bigdataeconomy)




IBM big data platform

### 360-degree view of the customer



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# AI-ENABLED LAW ENFORCEMENT

- 
- Legal behavioral forecasting
  - Facial Recognition arrest
  - Camera-based surveillance
  - Big Data analytics
  - Social media intelligence
  - Automated personal data processing



16:37:38







China / Society

## Chinese murder suspect 'caught by AI software that spotted dead person's face'

- Police say man from Fujian province was detained while trying to burn body on remote farm after strangling girlfriend
- Online lender contacted officers after its verification software spotted that the victim's eyes weren't moving

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### Facebook

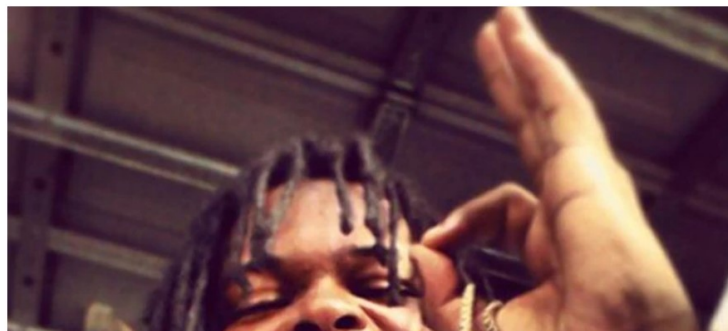
• This article is more than 1 year old

## Facebook teams up with police to stop streaming of terror attacks

Tech company to equip officers with body cameras to help identify terror attack videos

## Florida man's Instagram photos lead to 142 felony charges

By VICTORIA TAYLOR  
NEW YORK DAILY NEWS | DEC 14, 2013 AT 5:06 PM



### RECOMMENDED ON DAILY NEWS

Woman charged with hitting cyclist with pickup truck during Breonna Taylor protest in Buffalo

1h



Two wounded in Paris stabbing attack outside Charlie Hebdo's former office space

4h



'Suspicious' fire at home of Minnesota

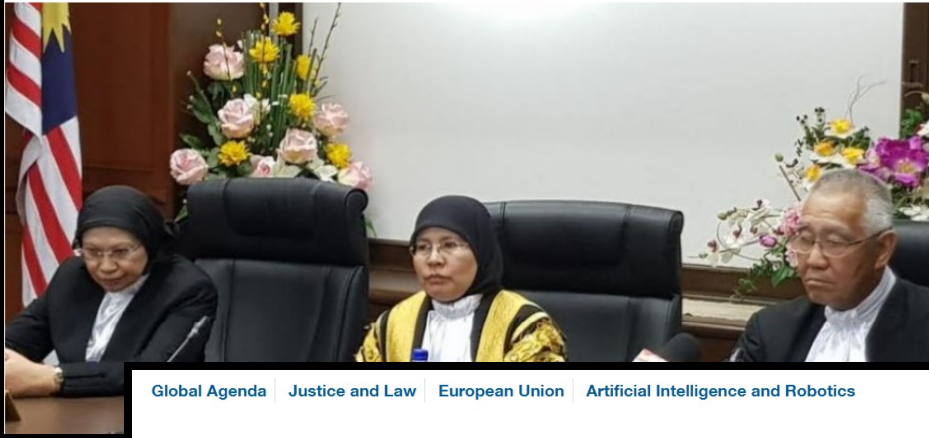


## Mahkamah Sabah, Sarawak guna teknologi AI bantu hakim jatuh hukuman



Desmond Davidson

Dikemas kini 8 bulan yang lalu · Diterbitkan pada 17 Jan 2020 4:48PM · 0 Komen


[Global Agenda](#) [Justice and Law](#) [European Union](#) [Artificial Intelligence and Robotics](#)

## Estonia is building a 'robot judge' to help clear a legal backlog



Estonia has started to incorporate AI into a number of its government functions.

Image: REUTERS/Maxim Shemetov

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## Robot mediator settles first ever court case



19 February 2019

Posted by Nick Hilborne

A 'robot mediator' has been used to settle a dispute in the court system, for what is believed to be the first time.

The online tool, which uses artificial intelligence (AI) algorithms in place of

iator, settled the three-  
e in less than an hour.

mediator and online  
ution expert, said the  
came when he  
vo litigants from the  
online civil money  
h to the Canadian dispute  
bl Smartsettle ONE



*Ross: The system uses algorithms to help parties avoid the negotiation dance*



# JURISPRUDENTIAL CHALLENGES



1. Is data a property?
2. Who owns personal information out of the IoT?
3. The challenge of cross-border crimes
4. Balancing privacy and security?
5. Who is responsible for the fault of the AI?

# CHALLENGES TO LAW EDUCATORS



- Technology as a carrier for law education
- Technology changes over time.
  - **Need to cope!**
- Digital Natives: new ways to learn law?
- Will Robots replace Law Enforcers and Arbiters?

# WAY TO GO: A DISRUPTIVE REGULATORY APPROACH

- A HYBRID OF TOP-DOWN AND BOTTOM-UP
- 🗄️ MULTI-STAKEHOLDERISM
- 🤝 PUBLIC-PRIVATE PARTNERSHIP (CO-REGULATORY)
- ⚖️ SPIRIT OVER LETTER OF THE LAW
- 👥 LAW FOR DIGITAL NATIVE - SOCIAL JUSTICE
- 📊 AGILITY AND ABILITY TO CHANGE!





## DEVELOPING THE CURRICULUM - Two Approaches

### Review Existing Syllabus

- Contract Law
- Intellectual Property Law
- Criminal Law
- Law of War

### Create New Program/Course with New Syllabus

- IT / Cyber Law
- Digital Economy and Law
- Electronic Transactions
- Cyber War

Example of Cyberlaw Module:

<http://sonnyzulhuda.com/LAW> **sonnyzulhuda.com**



# CONCLUSION

- The proliferation of data economy leads to an unprecedented innovation of law-making and law-enforcement processes.
- While it is pertinent that law-making and law-enforcing in near future will be utilising data and digital technology, it is also crucial to eliminate the risks and detrimental effect of such use.
- The challenges of data economy today must be put in the radar of Muhammadiyah educational institutions, to ensure they produce graduates who are relevant and competitive.
- This presentation calls for PTMA to have a fresh view on this and how the research and teaching activities would need to adjust.

# Food for Thought: DATA ECONOMY IS ABOUT SURVIVAL



“We did not do  
anything wrong, but  
somehow, we lost”

*Stephen Elop, Former CEO of Nokia (2016)*

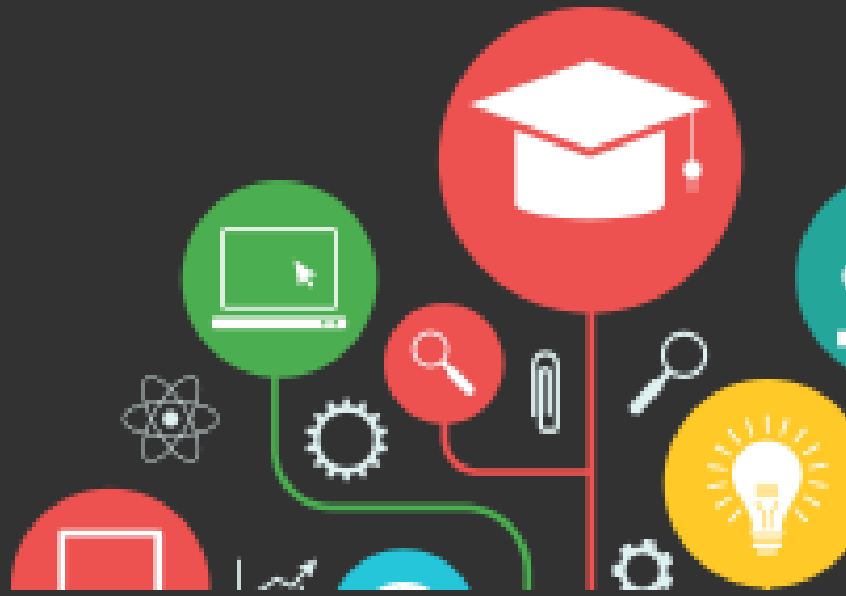




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# THANK YOU

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