


# ***Business Intelligence***

Zulkarnaen Noor Syarif

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cambridge dictionary

Business

the activity of **buying** and **selling** goods  
and **services**

Intelligence

the **ability** to **learn**, **understand**, and  
make **judgments** or have **opinions** that  
are **based** on **reason**



# Business Intelligence (BI)

Richard Miliar Devens

The ability to collect and react accordingly  
based on the information retrieved.

Howard Dresner

Concepts and methods to improve business  
decision making by using fact-based  
support systems.

# BI Function



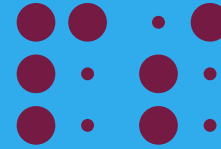
Reporting



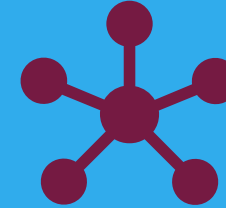
Online Analytical  
Processing



Dashboard  
Development



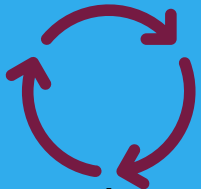
Data Mining



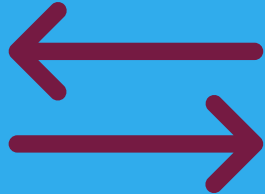
Process Mining



Event Processing



Business  
Performance  
Management



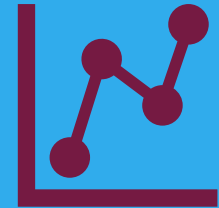
Benchmarking



Text Mining



Predictive  
Analytic

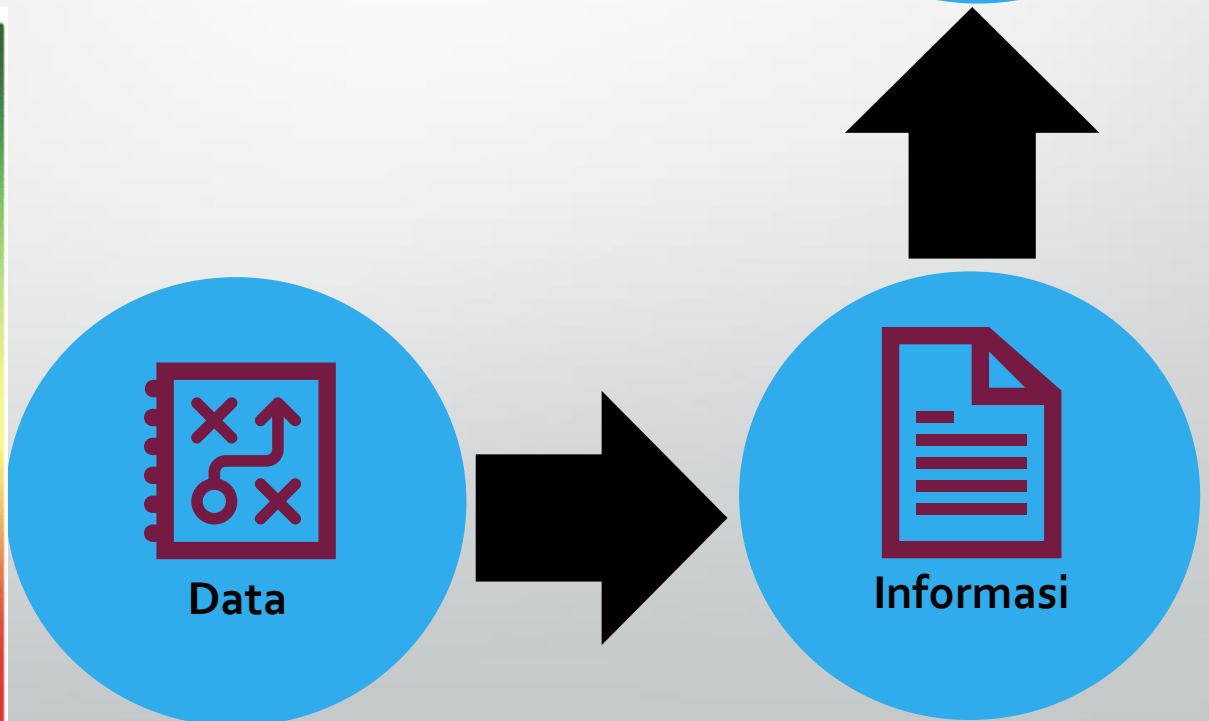
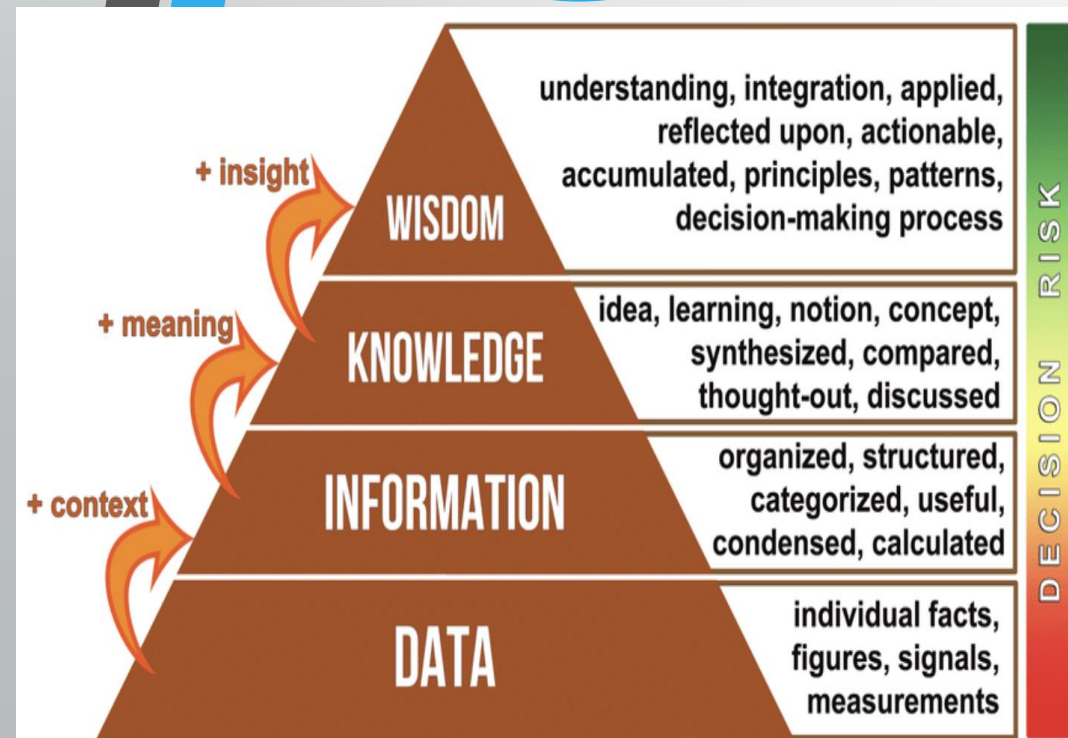


Prescriptive  
Analytic

# Sulit dijawabnya Pertanyaan Bisnis

- Bisnis Produksi:
  - Stok bahan baku ?
  - Kecepatan produksi ?
  - Produksi terjual ?
  - Komplain dari pembeli ?
- Bisnis Jasa:
  - Pelanggan baru ?
  - Frekuensi kedatangan pelanggan ?
  - Distribusi usia pelanggan ?
- Bisnis Hiburan (Kebun/ Satwa):
  - Jumlah species ?
  - Biaya setiap hari perawatan ?
  - Harga tiket ?

# Pengambilan Keputusan



# Solusi BI & Role BI

Pengembangan solusi BI memerlukan perencanaan



## Role dalam project BI

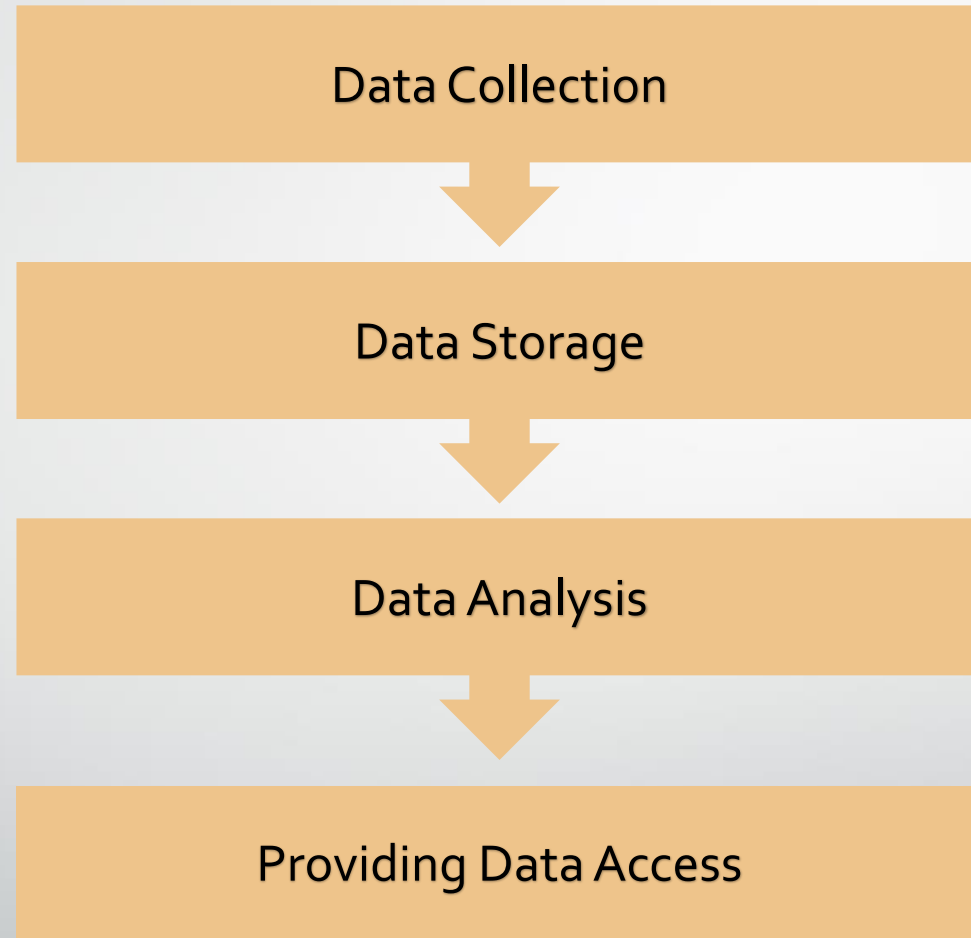
Program  
Manager

Data Architect

Technical  
Architect

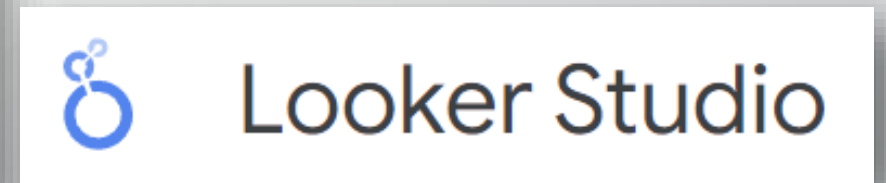
BI Developer

# Tahapan



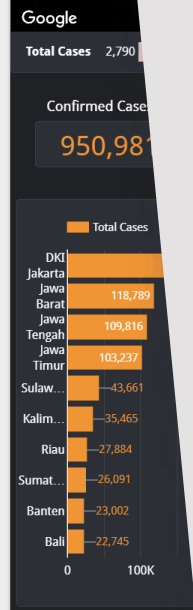


# Tools BI



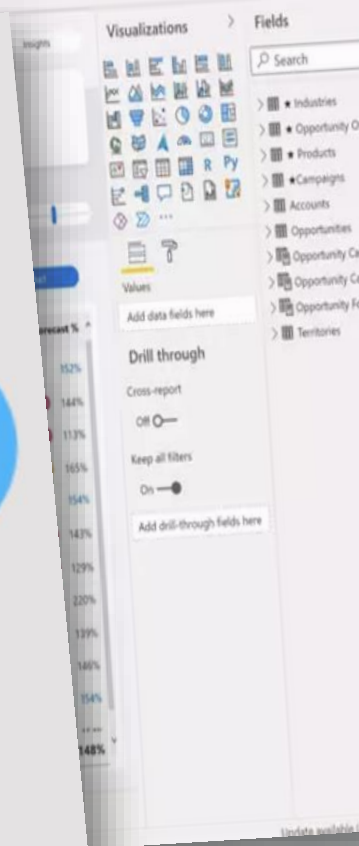
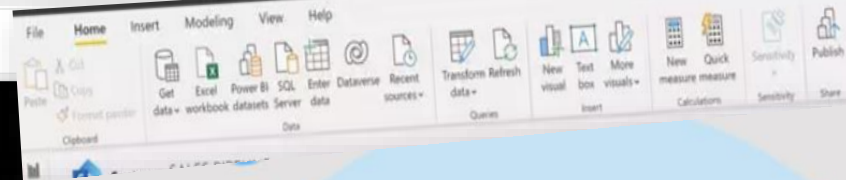
# Contoh

Covid 19 DataStudio



Data Last Updated: 5/24/2024 8:08:02 PM

<https://lookerstudio>



# Pendidikan



A Computing Curricula Series Report  
2020 December 31

# Computing Curricula 2020

## CC2020

Paradigms for  
Global Computing Education

encompassing undergraduate programs in

Computer Engineering

Computer Science

Cybersecurity

Information Systems

Information Technology

Software Engineering

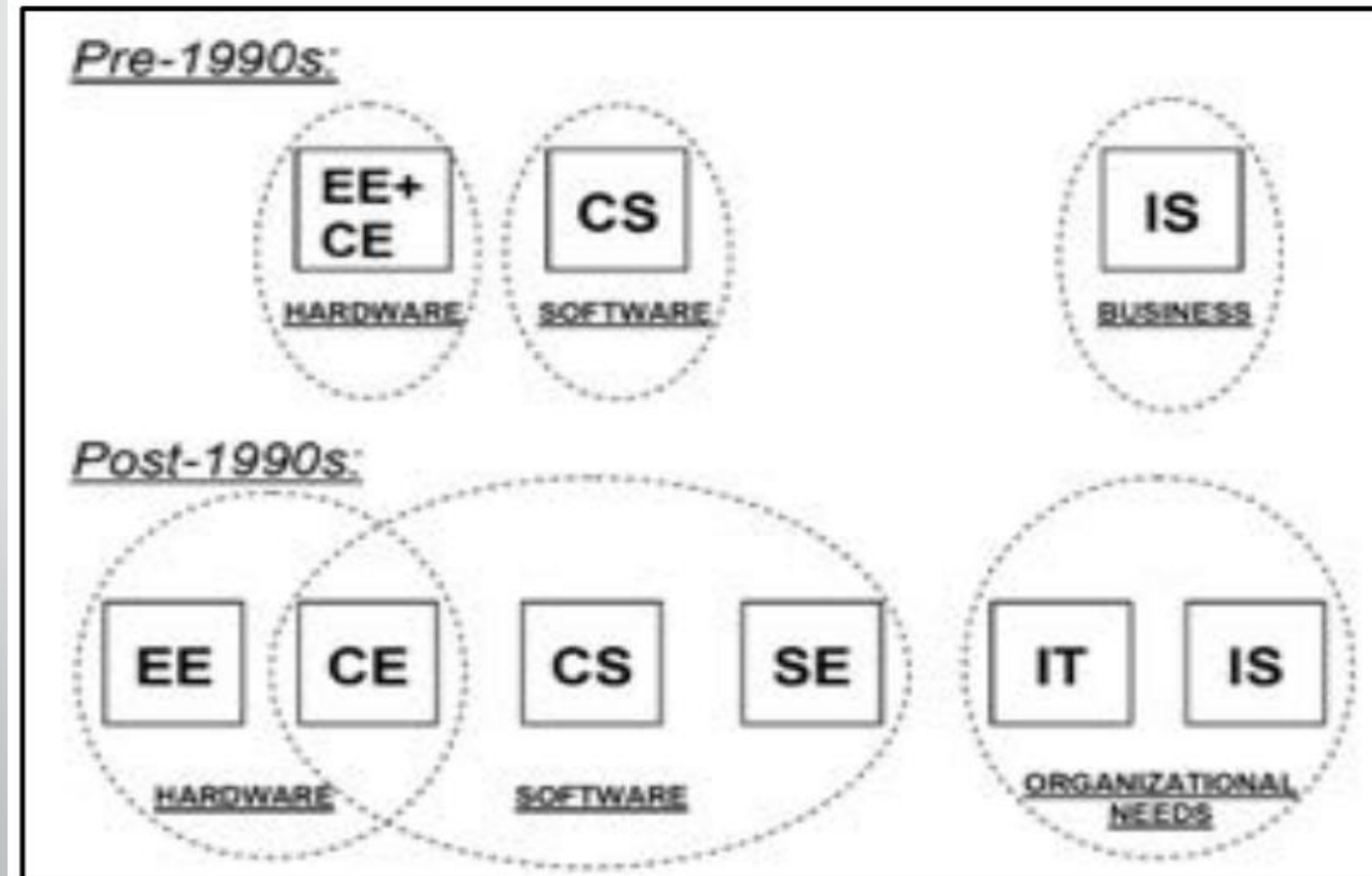
with data science



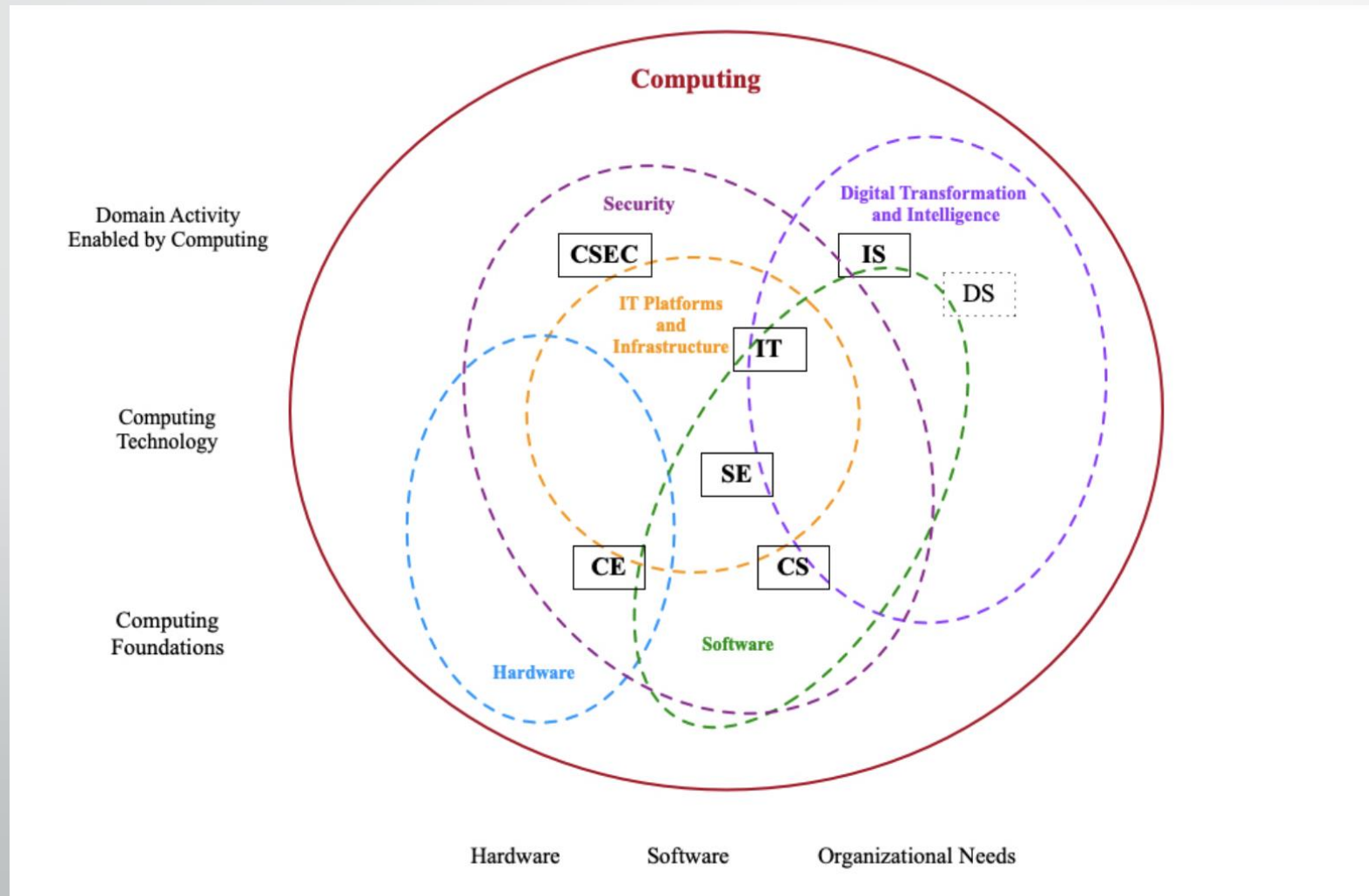
Association for  
Computing Machinery



# Perkembangan Terkait Disiplin Ilmu IT

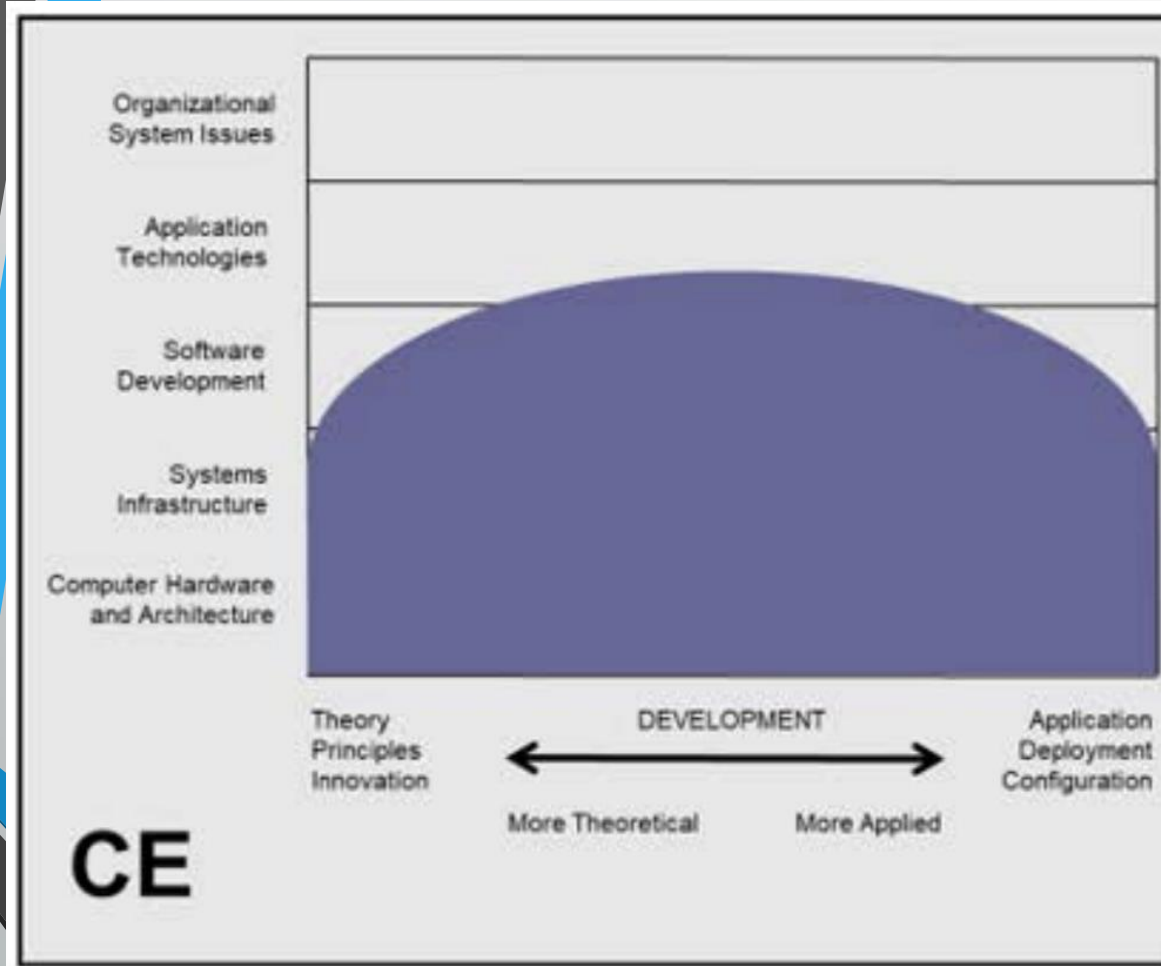


# Keterkaitan Antar Disiplin Ilmu IT





# Computer Engineering



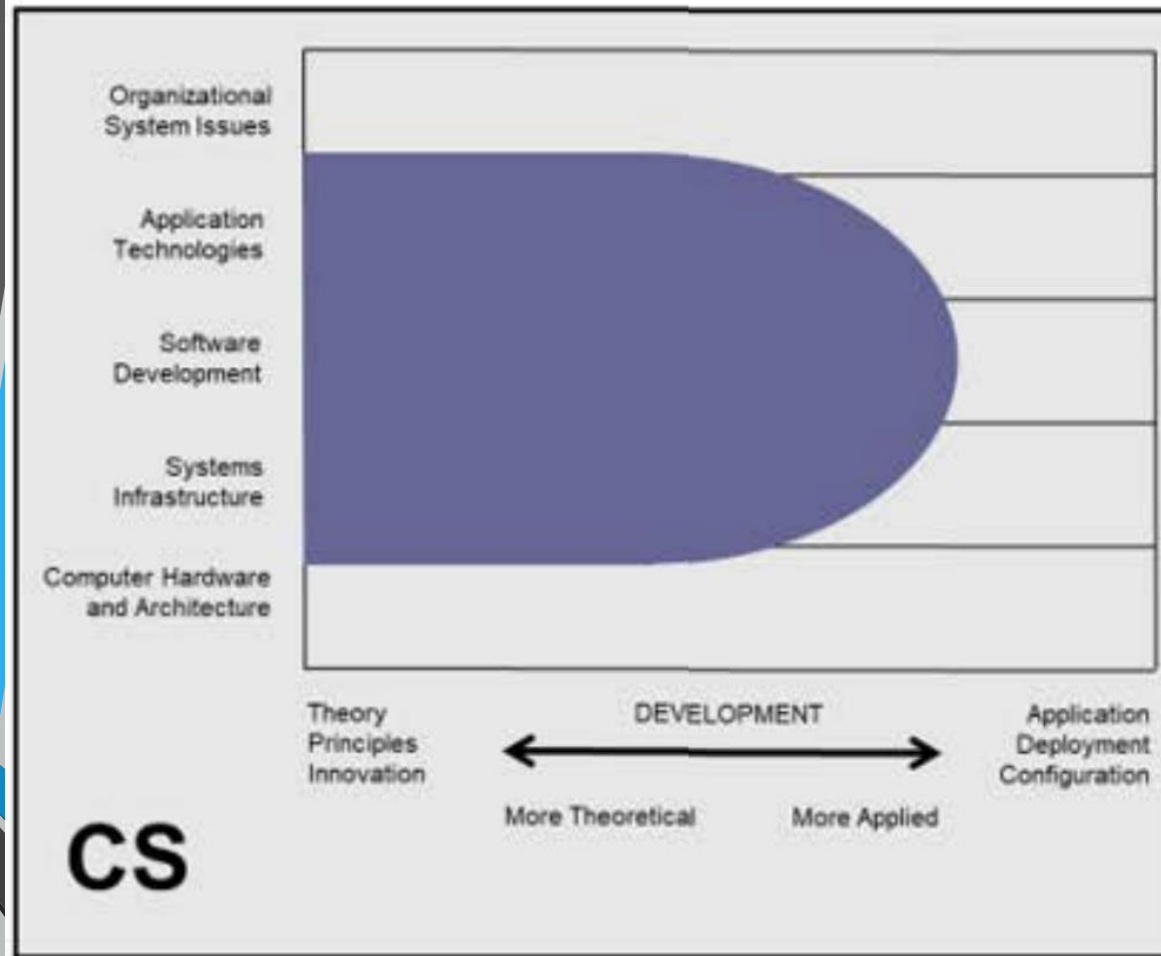
## **Main Knowledge Areas**

Computer architecture & organization  
Computer systems engineering  
Digital logic  
Programming fundamentals  
Distributed systems  
Circuits & systems  
Electronics

## **Core Performance Capabilities**

Design and implement computing systems, computer-controlled equipment and communication software  
Maintain computing systems that involve the integration of software and hardware devices

# Computer Science



## **Main Knowledge Areas**

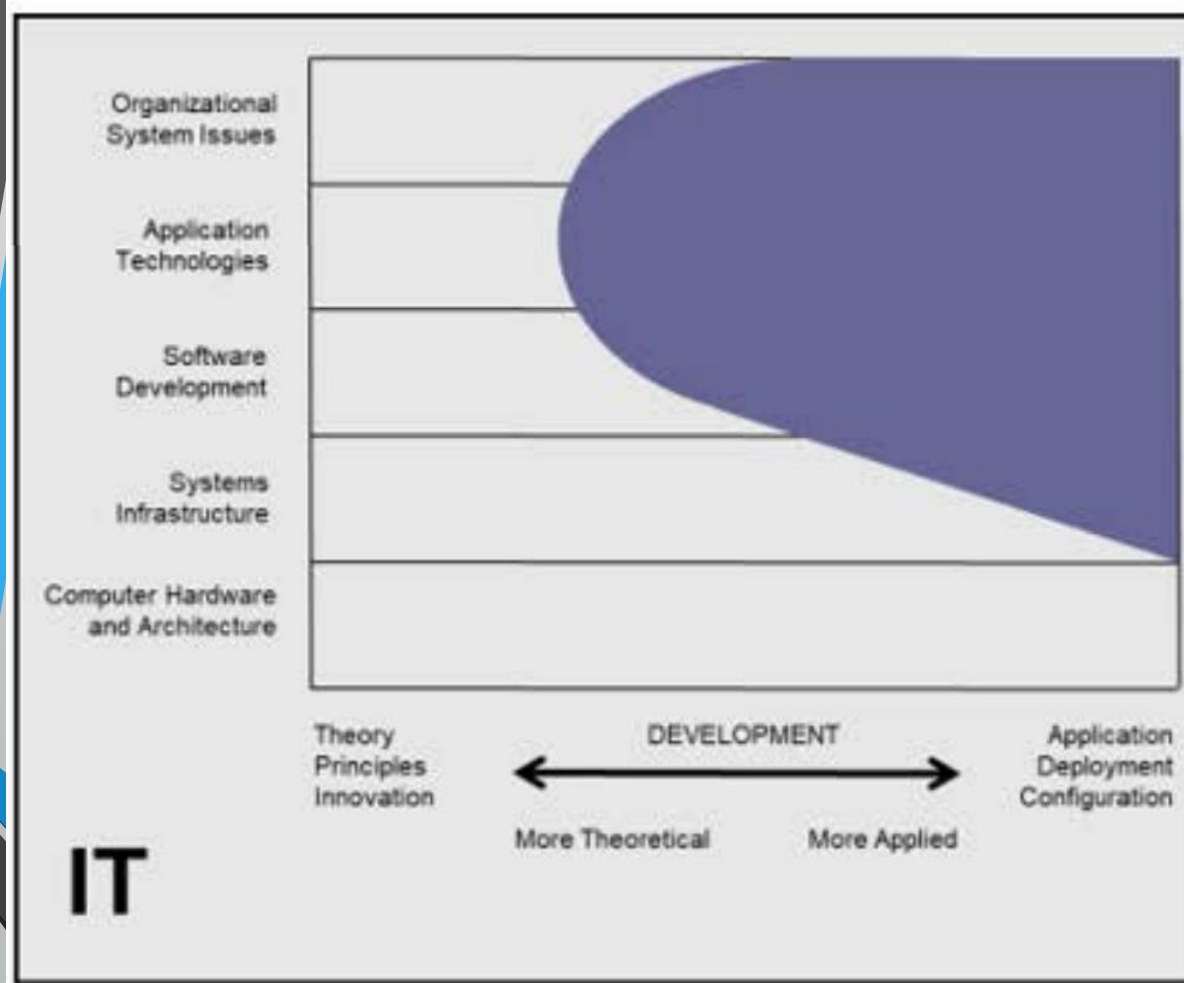
Software development fundamentals  
Algorithms & complexity  
Software engineering  
Programming languages  
Discrete structures  
Systems fundamentals  
Computer architecture & organization

## **Core Performance Capabilities**

Design & implement software  
Develop solutions to computing problems  
Optimize programming solutions  
Prove theoretical results  
Devise new ways to use computers



# Information Technology



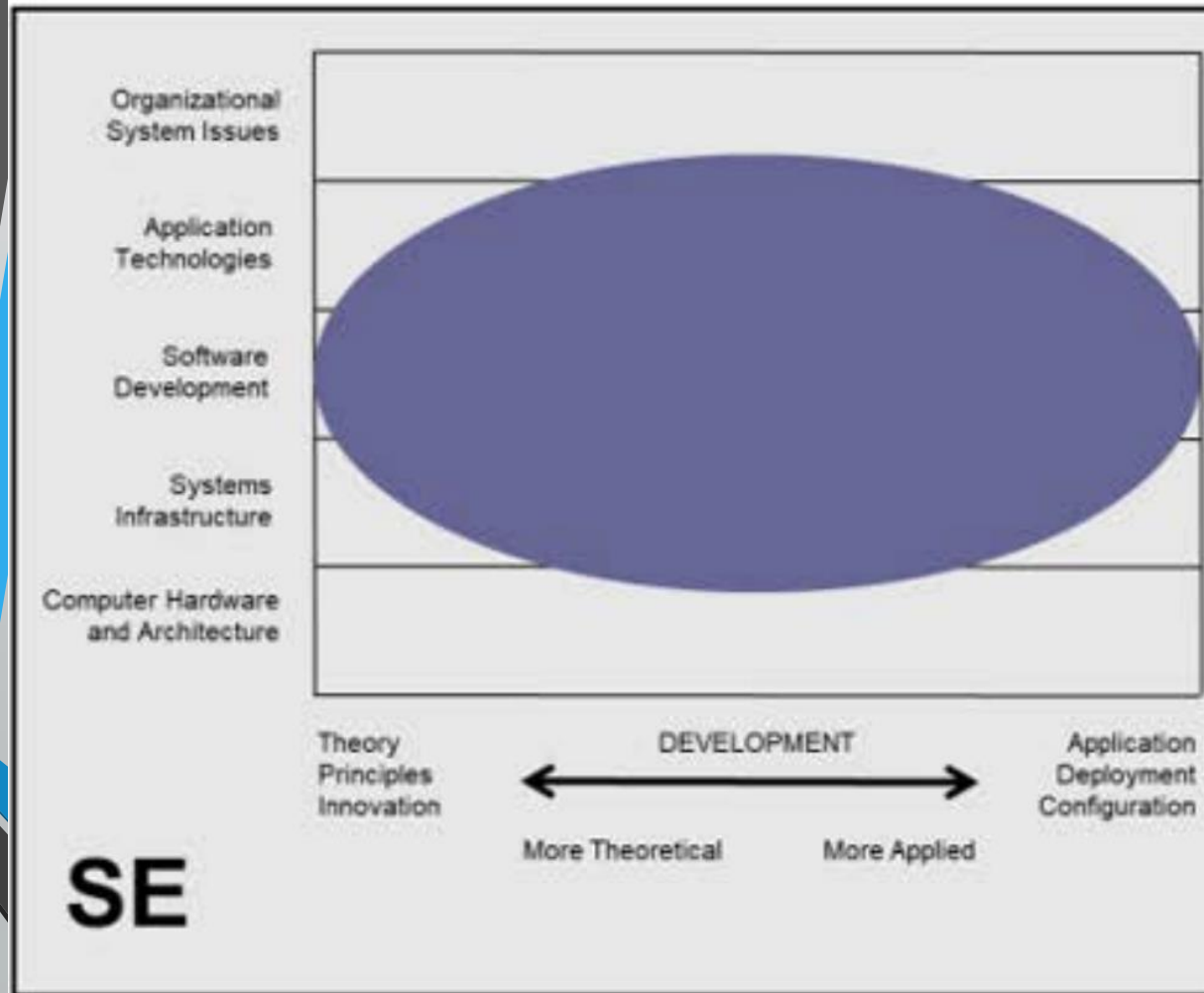
## **Main Knowledge Areas**

Technical support  
Programming fundamentals  
Information management  
Information technology fundamentals  
Systems integration  
Mathematical fundamentals  
Interpersonal communication

## **Core Performance Capabilities**

Train and support users  
Plan, select, configure & maintain information systems infrastructure  
Model, design, select, configure & manage databases  
Configure & integrate business applications

# Software Engineering



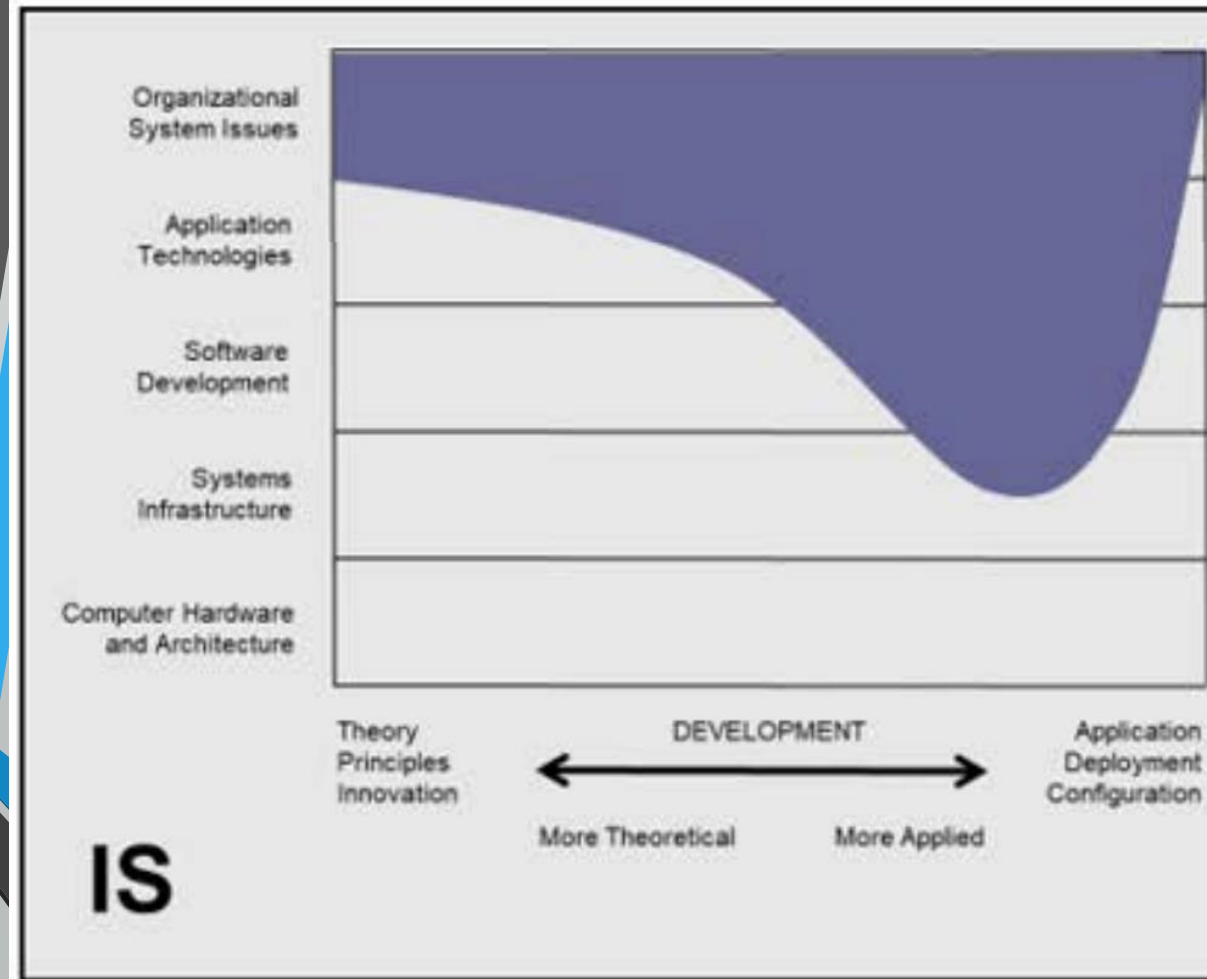
## *Main Knowledge Areas*

- Computing essentials
- Software modeling & analysis
- Software design
- Software verification & validation
- Professional practice
- Mathematical & engineering fundamentals
- Project management

## *Core Performance Capabilities*

- Do small-scale & large-scale programming
- Develop software systems
- Manage software projects
- Implement information systems
- Define information systems technical requirements

# Information System



## **Main Knowledge Areas**

Foundations of information systems  
Data & information management  
Information systems strategy, management & acquisition  
Enterprise architecture  
Systems analysis & design  
Information technology infrastructure  
Project management

## **Core Performance Capabilities**

Improve organizational processes  
Exploit technological innovations  
Define information requirements  
Design enterprise architecture  
Secure data & infrastructure  
Manage information systems risks



# Information System

- Sistem Informasi merupakan bidang keilmuan menggabungkan ilmu komputer dengan ekonomi dan administrasi bisnis.
- Belajar bagaimana mengidentifikasi kebutuhan dan proses bisnis perusahaan berdasarkan data perusahaan dan merancang sistem yang memenuhi kebutuhan perusahaan.
- Mahasiswa sistem informasi mempelajari bagaimana **menganalisis, mengolah, dan memvisualisasikan data suatu perusahaan sehingga dapat dijadikan sebagai pertimbangan oleh manajemen bisnis dalam mengambil keputusan di suatu perusahaan.**



# Terima Kasih

Zulkarnaen Noor Syarif

# References

- <https://dictionary.cambridge.org/dictionary/english/>
- [http://www.scientificpapers.org/wp-content/files/1102\\_Business\\_intelligence.pdf](http://www.scientificpapers.org/wp-content/files/1102_Business_intelligence.pdf)
- [https://www.researchgate.net/figure/The-data-information-knowledge-wisdom-DIKW-hierarchy-as-a-pyramid-to-manage-knowledge\\_fig6\\_332400827/download?\\_tp=eyJjb250ZXh0Ijp7ImZpcnNoUGFnZSI6Il9kaXJlY3QiLCJwYWwudlljoiX2RpcmVjdCJ9fQ](https://www.researchgate.net/figure/The-data-information-knowledge-wisdom-DIKW-hierarchy-as-a-pyramid-to-manage-knowledge_fig6_332400827/download?_tp=eyJjb250ZXh0Ijp7ImZpcnNoUGFnZSI6Il9kaXJlY3QiLCJwYWwudlljoiX2RpcmVjdCJ9fQ)
- [https://en.wikipedia.org/wiki/Business\\_intelligence](https://en.wikipedia.org/wiki/Business_intelligence)
- <https://www.acm.org/binaries/content/assets/education/curricula-recommendations/cc2020.pdf>