



IPDN

Institut Pemerintahan Dalam Negeri



DATA BASE IN THE FUTURE

| Opportunities and Threats |

Dr. Supratman Zakir, S. Kom., M. Pd., M. Kom



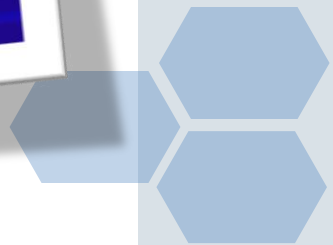
Scopus® id : 57205129622





8 TREN TEKNOLOGI DI 2019

- ARTIFICIAL INTELLIGENCE (AI)
- MACHINE LEARNING
- INTERNET OF THINGS
- ROBOTIC PROCESS AUTOMATION
- BLOCKCHAIN
- VIRTUAL REALITY
- AUGMENTED REALITY
- CYBER SECURITY





**JAN
2018**

DIGITAL IN INDONESIA

A SNAPSHOT OF THE COUNTRY'S KEY DIGITAL STATISTICAL INDICATORS



TOTAL
POPULATION



**265.4
MILLION**

URBANISATION:
56%

INTERNET
USERS



**132.7
MILLION**

PENETRATION:
50%

ACTIVE SOCIAL
MEDIA USERS



**130.0
MILLION**

PENETRATION:
49%

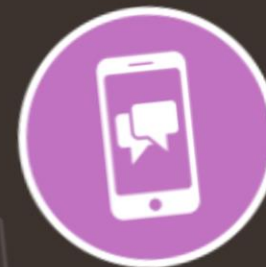
UNIQUE
MOBILE USERS



**177.9
MILLION**

PENETRATION:
67%

ACTIVE MOBILE
SOCIAL USERS



**120.0
MILLION**

PENETRATION:
45%

we
are
social

we
are
social

Global Webindex





**JAN
2018**

SHARE OF WEB TRAFFIC BY DEVICE

BASED ON EACH DEVICE'S SHARE OF ALL WEB PAGES SERVED TO WEB BROWSERS



LAPTOPS &
DESKTOPS



26%

YEAR-ON-YEAR CHANGE:
-8%

MOBILE
PHONES



72%

YEAR-ON-YEAR CHANGE:
+5%

TABLET
DEVICES



2%

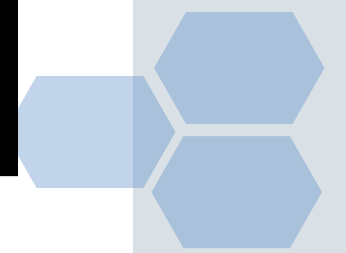
YEAR-ON-YEAR CHANGE:
-34%

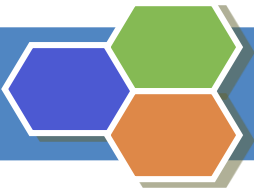
OTHER
DEVICES



[N/A]

YEAR-ON-YEAR CHANGE:
[N/A]





**JAN
2018**

TIME SPENT WITH MEDIA

SURVEY-BASED DATA: FIGURES REPRESENT RESPONDENTS' SELF-REPORTED ACTIVITY



AVERAGE DAILY TIME
SPENT USING THE
INTERNET VIA ANY DEVICE



8H 51M

AVERAGE DAILY TIME
SPENT USING SOCIAL
MEDIA VIA ANY DEVICE



3H 23M

we
are
social

AVERAGE DAILY TV VIEWING TIME
(BROADCAST, STREAMING
AND VIDEO ON DEMAND)



2H 45M

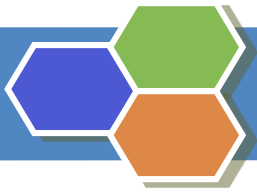
global
web
index

AVERAGE DAILY TIME
SPENT LISTENING TO
STREAMING MUSIC



1H 19M





PC

GSM/GPRS/CDMA

Smart-TV

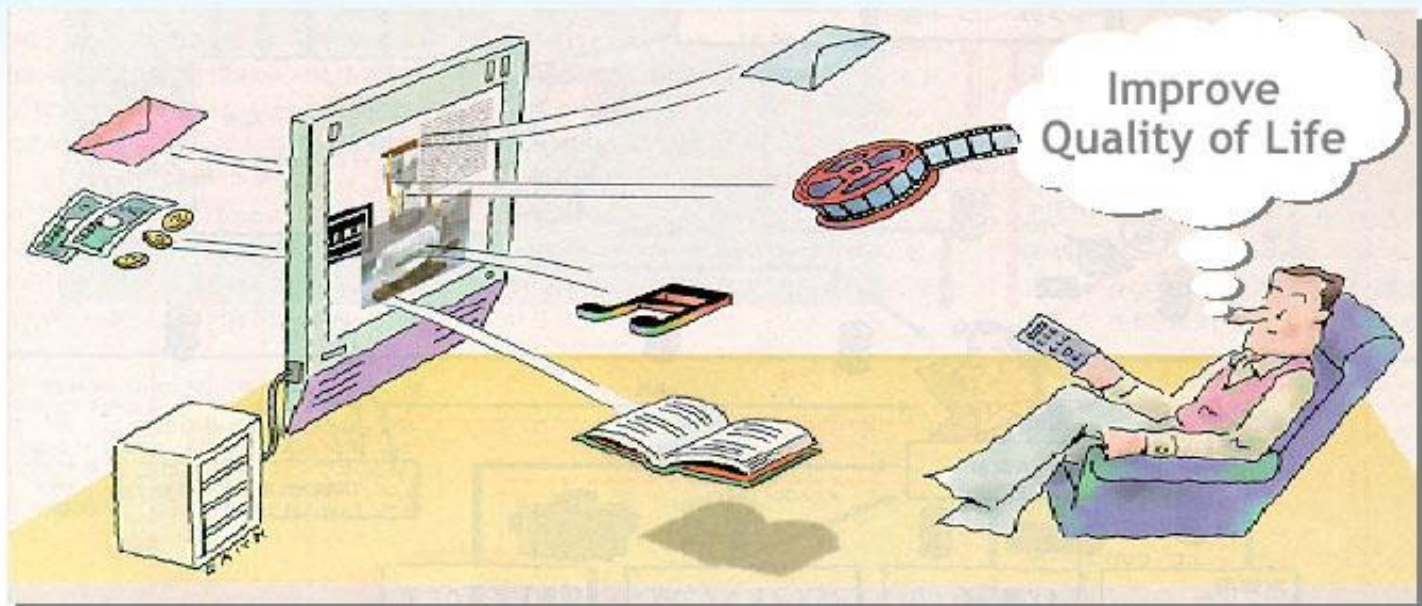




TV Broadcast



Web Surfing



e-Learning



e-Commerce



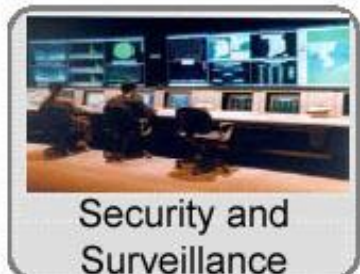
News



Online Stock Trade



Remote Office



Security and Surveillance



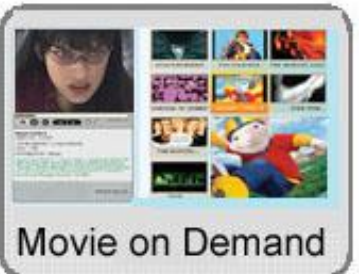
Phone, Videophone and Teleconference



e-Community



Online Game



Movie on Demand



Music Jukebox



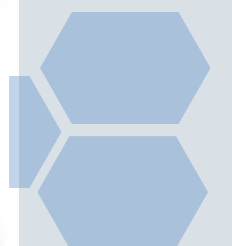
Online Banking and e-Payment

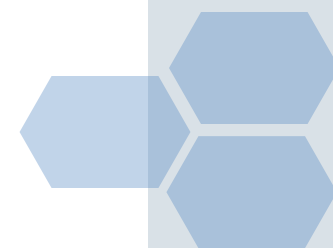
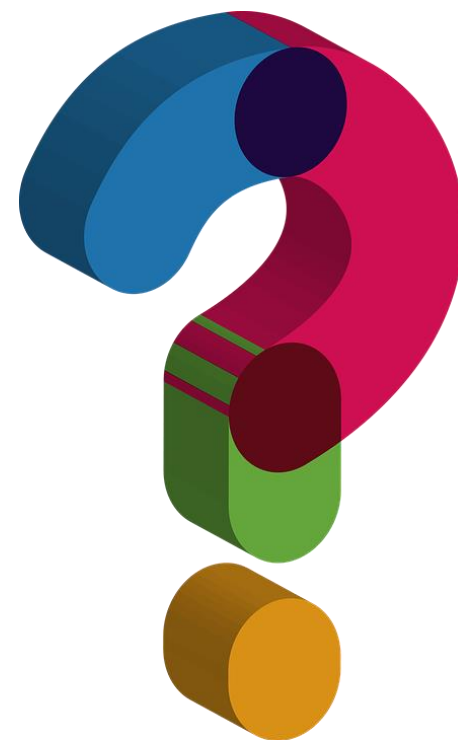
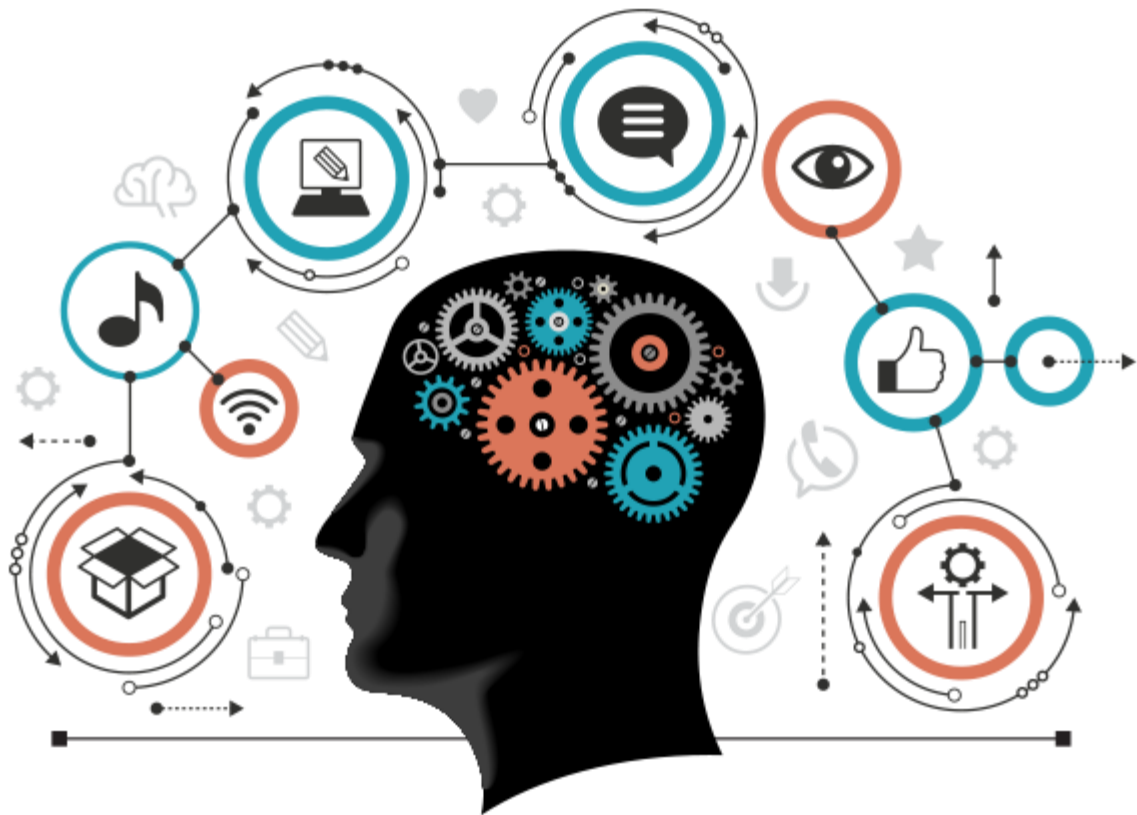


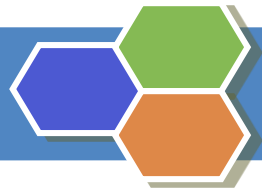
Online Gambling



Online Dating and Adult

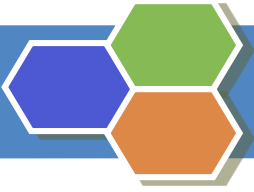






**Computer systems designed to interact
with the world through **certain abilities**
and **intelligence behaviors** that we
realize like **humans****





AI

Russel dan Norvig (2010)



thinking humanly



acting humanly

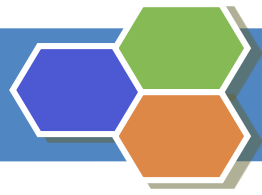


thinking rationally

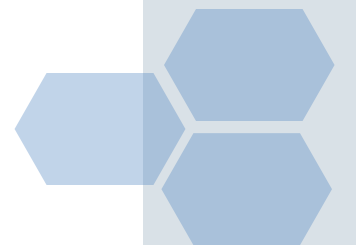


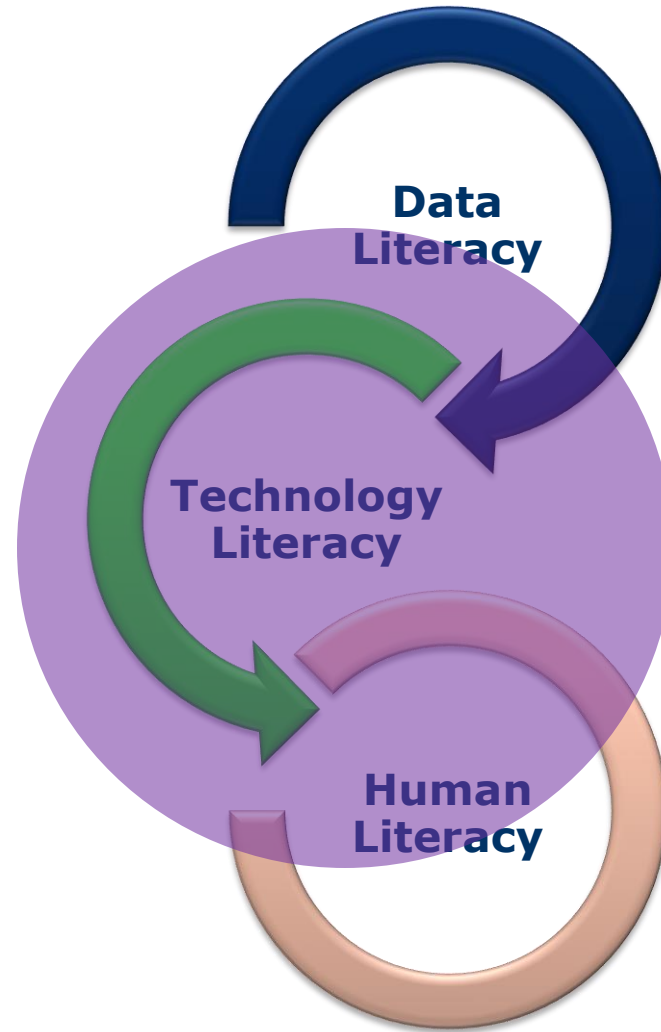
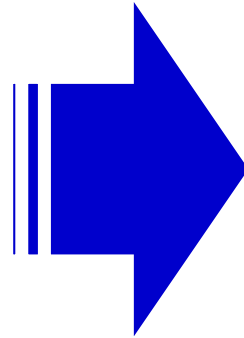
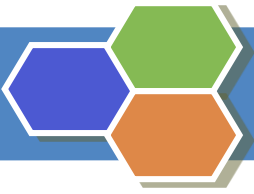
acting rationally

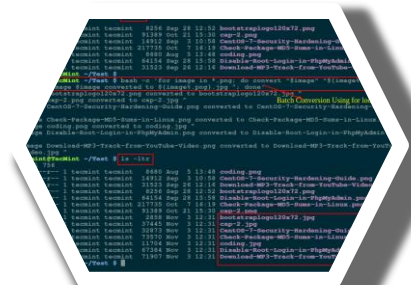
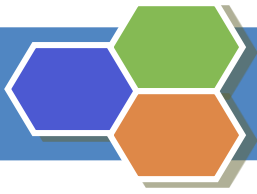




COMPUTER SCIENCE







Coding

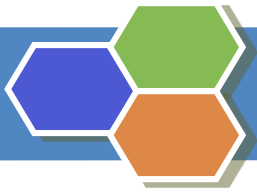


**Artificial
Intelligence**



**Engineering
Principle**





DISRUPTION

ION



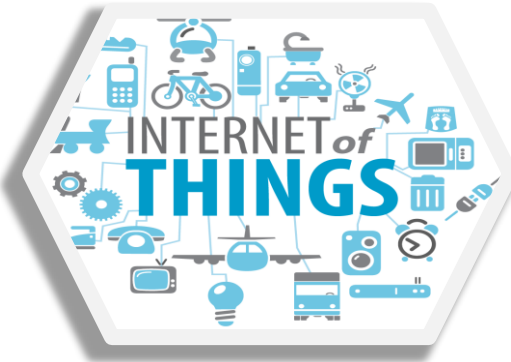
Human Machine
Communication



Connection :
Global Village



Smart
Robot



Internet of
Things



3D Printer



Driverless Car

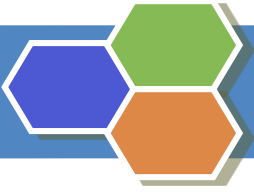


Big Data

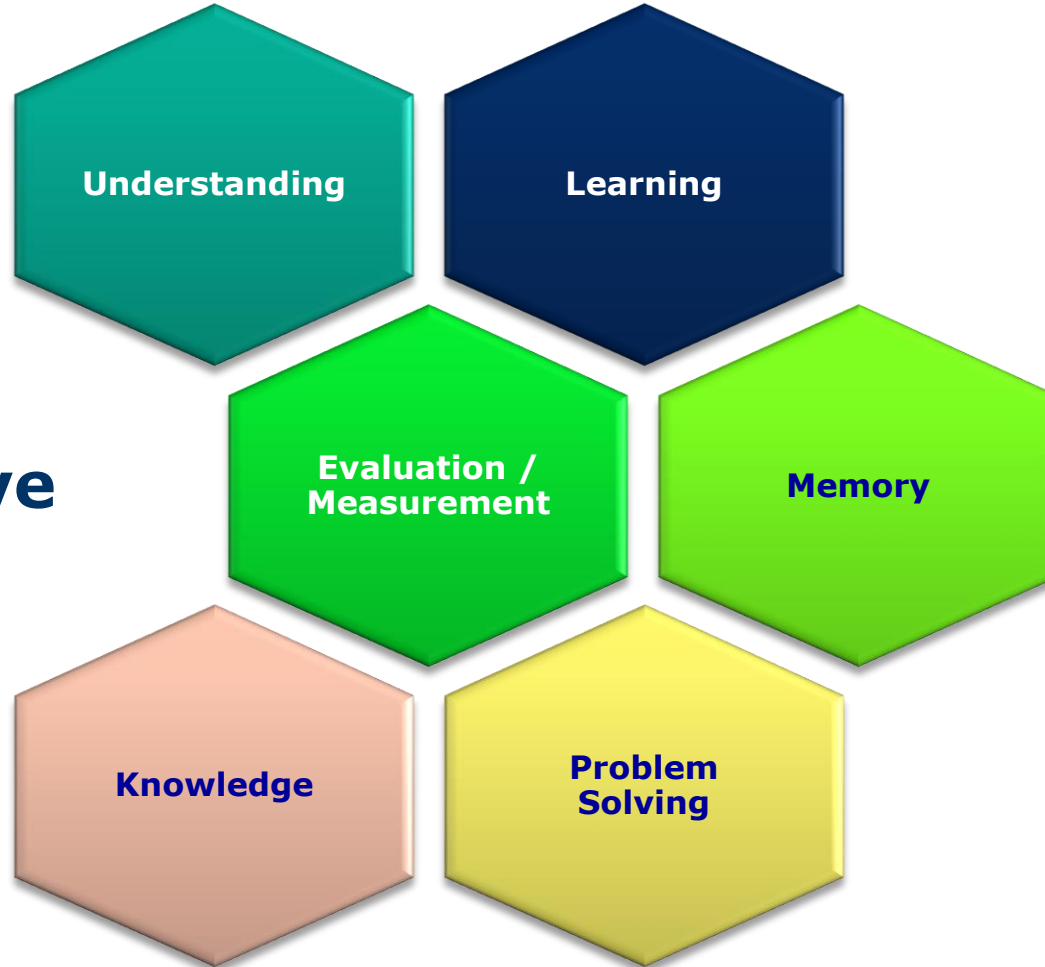


Virtual Education

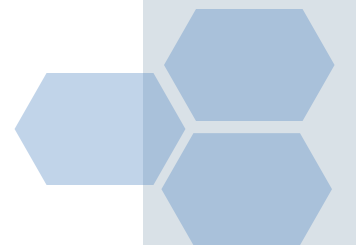


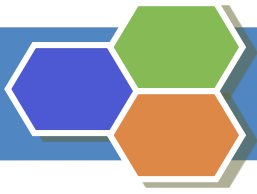


Have



Humanly





SISRI :
Voice Assistant



TESLA :
Driverless Car



COGNITO :
Call Center



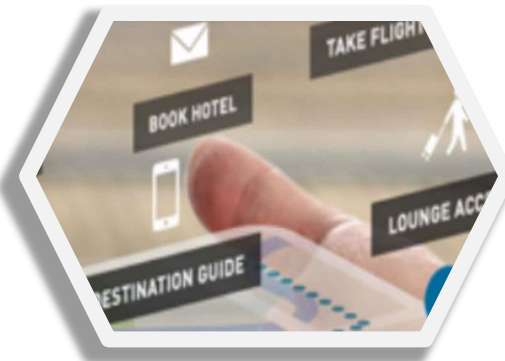
NETFLIX :
Film Recommendation



PANDORA :
Music Recommendation



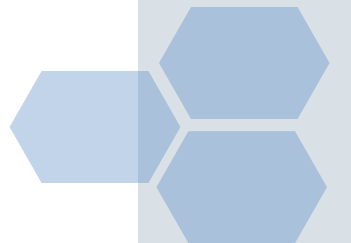
NLT Google :
Search Engine

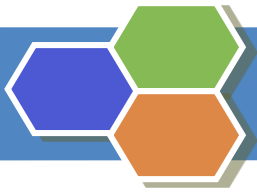


BOXEVER :
Traveling Assistant



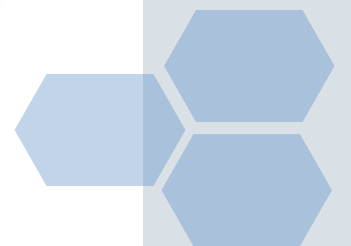
Flying Drone :
Expedition

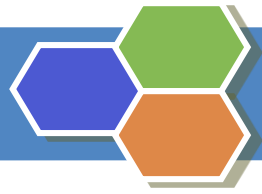




SISRI

help you find information,
get directions, send
messages, make voice
calls, open applications,
and add events to the
calendar



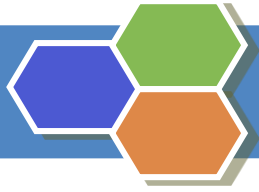


EXAMPLE

TESLA

Tesla is a technology that eliminates human drivers. This car has various features such as self driving, predictive ability, and absolute technological innovation.

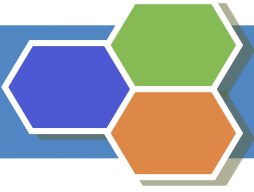




COGNITO

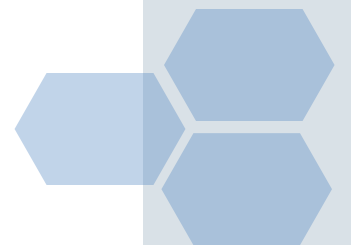
voice calls by
analyzing human
voices and providing
guidance for
providing maximum
service

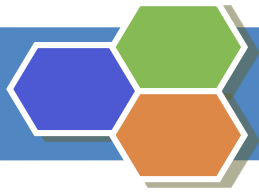




NETFLIX

a very popular content-on-demand service that uses predictive technology to offer recommendations based on consumer reactions, interests, choices and behavior

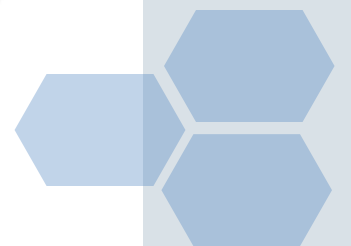


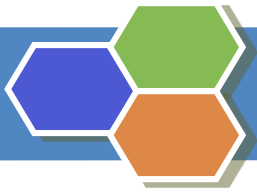


PANDORA

technology that analyzes the characteristics of music, then recommends a track record to recommend songs that are suitable for users

EXAMPLE



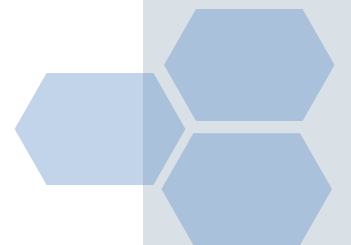


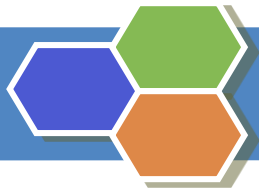
NEST LEARNING THERMOSTAT

The Nest Learning
Thermostat uses
behavioral algorithms to
save energy based on
your behavior and
schedule.



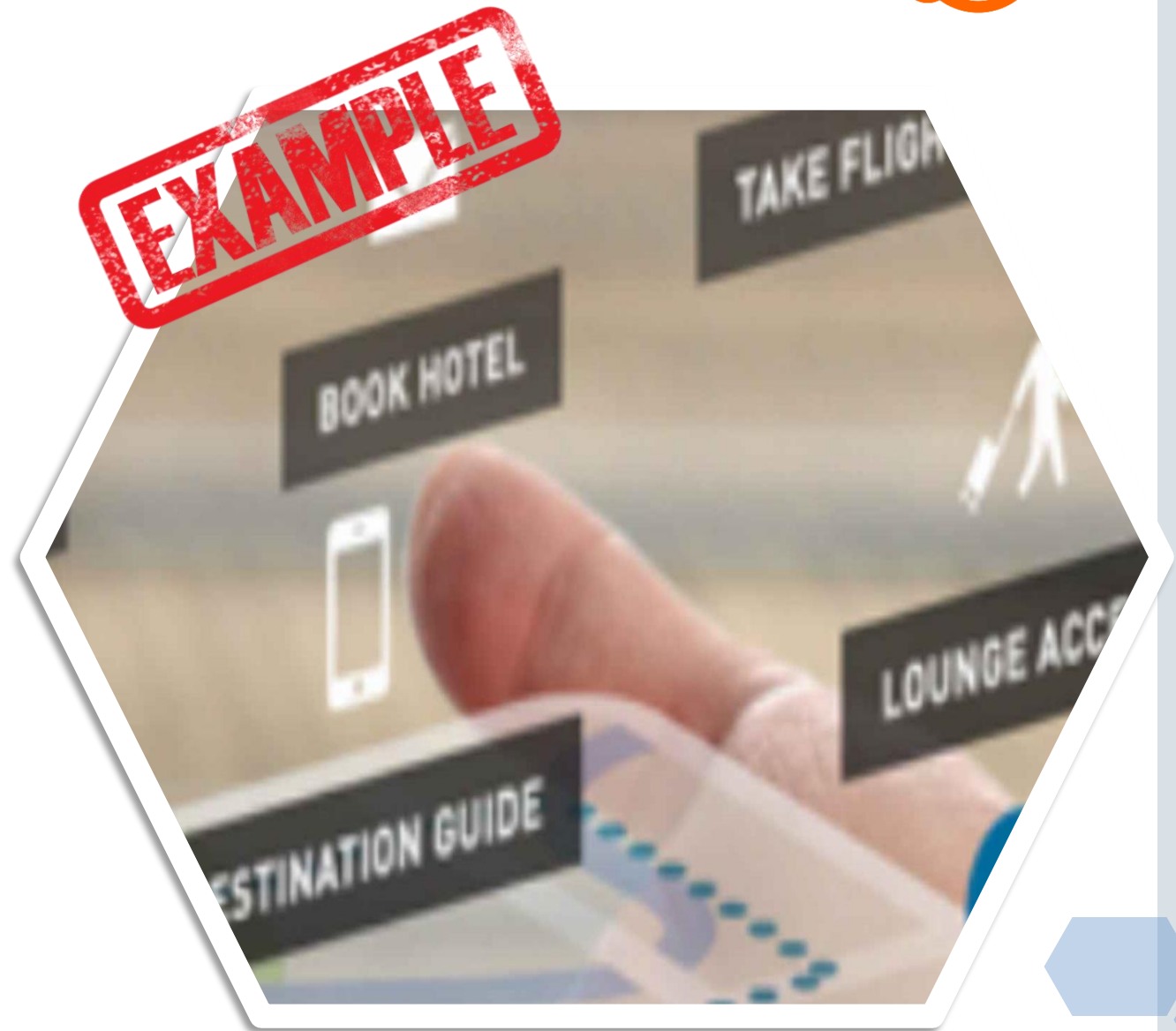
EXAMPLE

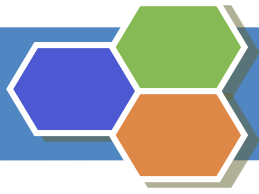




BOXEVER

significantly
increases customer
engagement to set
the playing field, help
customers find new
ways and make
unforgettable trips



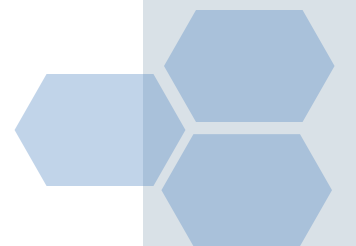
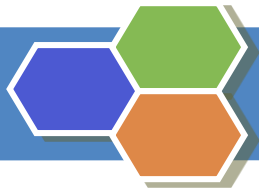


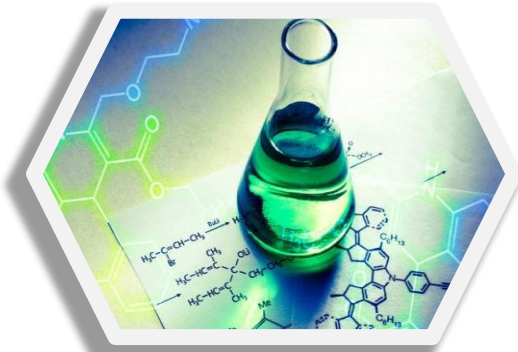
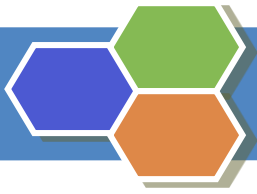
F-DRONE

by using a Wi-fi system,
we can control the drone
and use it for specific
purposes - product
delivery, video making,
or news reporting

EXAMPLE







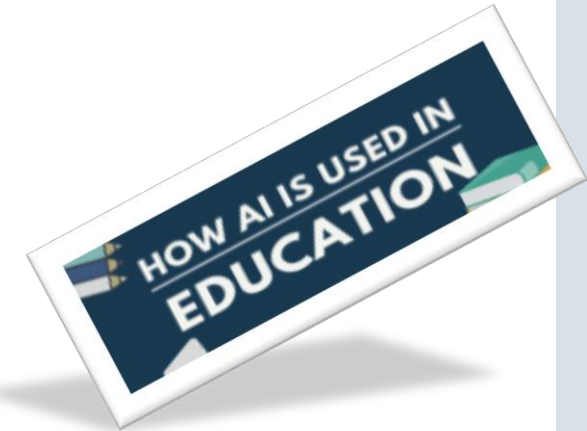
DENDRAL :
Chemistry



MACSYMA :
Mathematic



ITS :
Intelligence Tutorial



ICAI :
Intelligence CAI



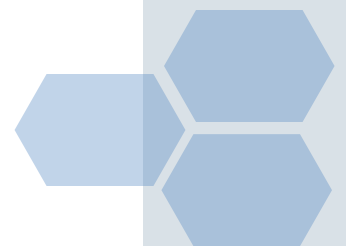
Open Learning

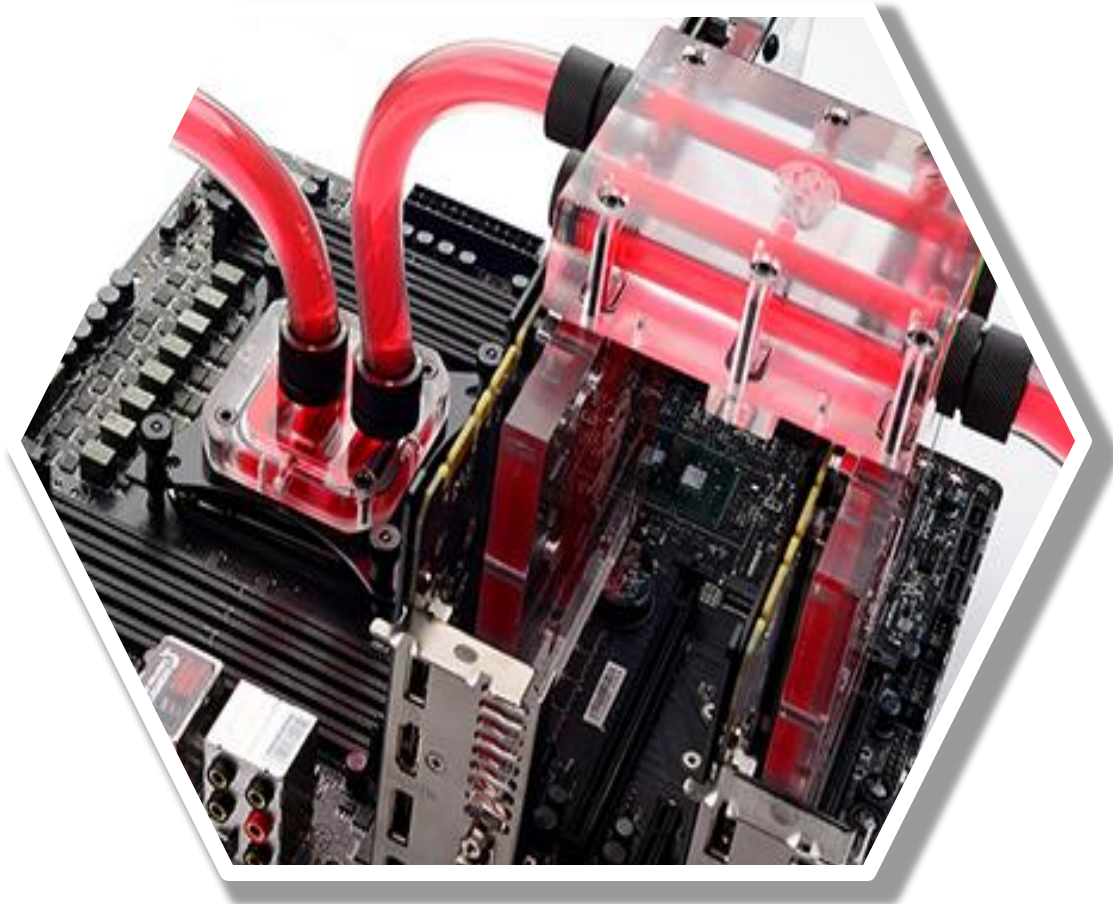
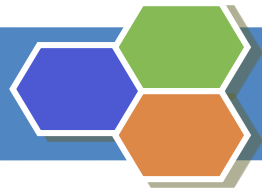


Machine Learning

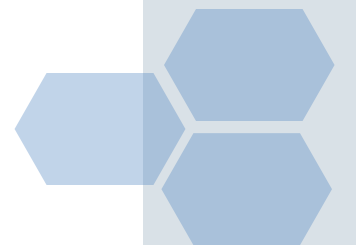


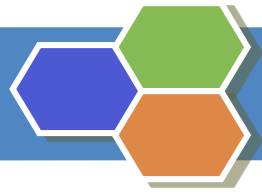
Virtual Learning





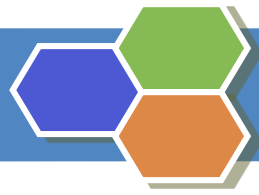
Implementation of
the expert system
in detecting
computer failure





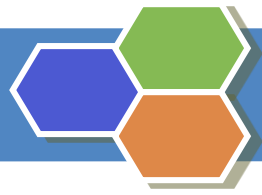
early detection
of drug
addiction for
students using
expert systems



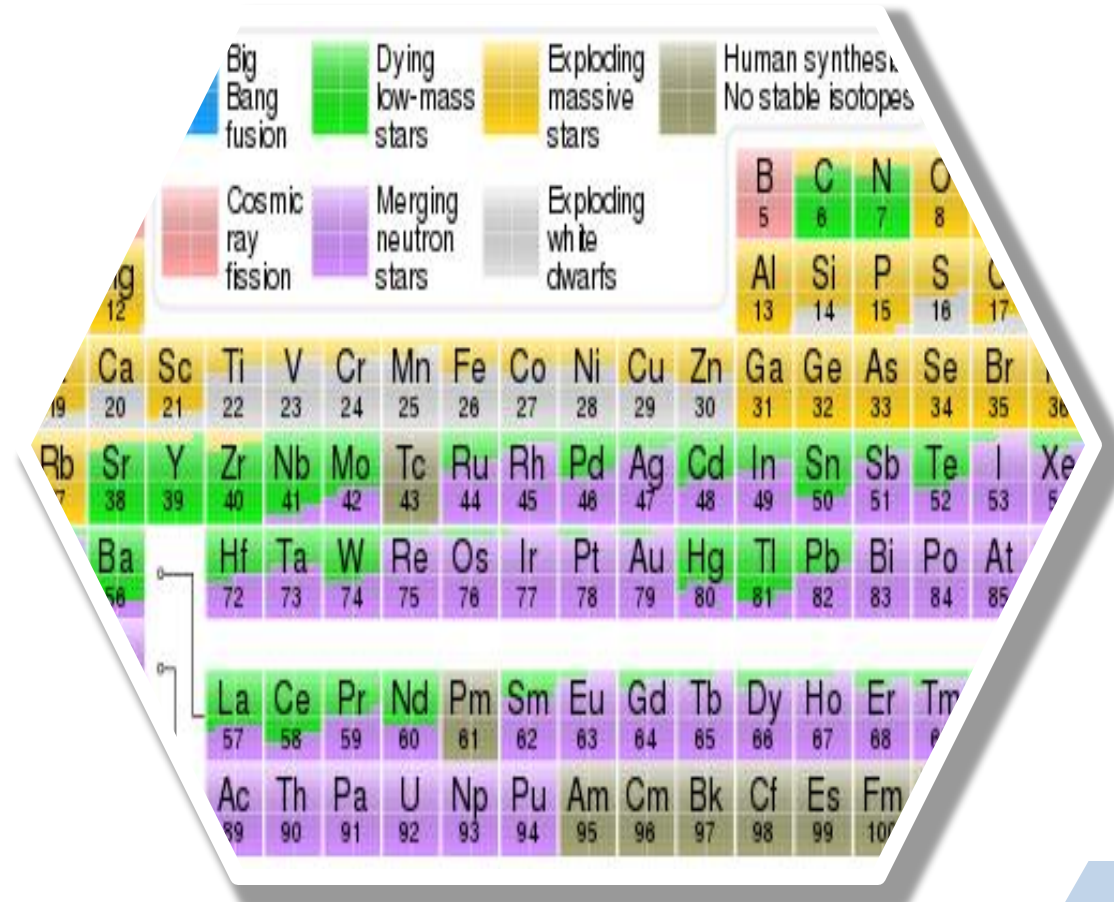


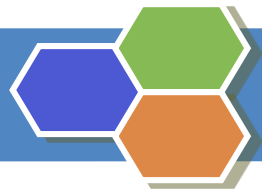
the determination of
the national Olympic
participants using an
expert system



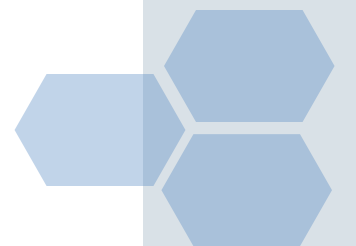


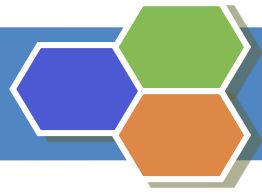
expert system
implementation in
facilitating the use
of chemical
formulas



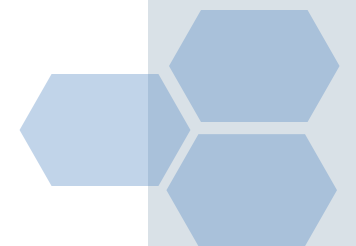


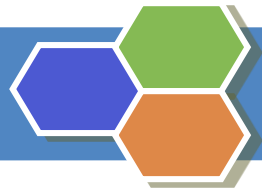
detection of
student learning
styles using
expert systems





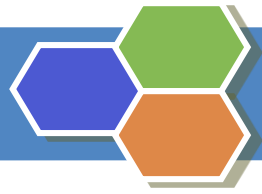
VIT: a system for
detecting the interests
of prospective
students



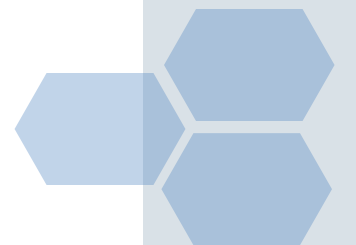


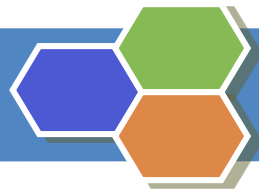
determination of
student interest in
participating in
extracurricular
activities





*penerapan Artificial
Intelligence semakin populer hari
ini; mempengaruhi cara kita hidup,
berinteraksi dan meningkatkan
pengalaman.*





*Jangan sampai teknologi ini
mengambil alih secara mutlak
adanya manusia sebagai
makhluk sosial dan khalifah di
muka bumi ini*





醫藥

醫藥

