

Pertemuan 9

Transformasi Digital Menuju Era Disruptif dan Revolusi Industri 4.0



We live in a VUCA world

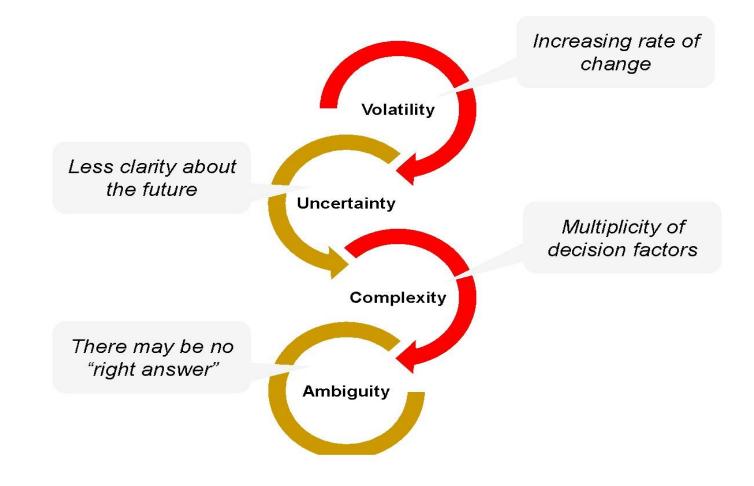
and how Leaders can navigate it



by Colin Ramsay



VUCA: Global Changes — Nature of Transformation





The New Challenges

- Gerd Leonhard -

Exponential Organization

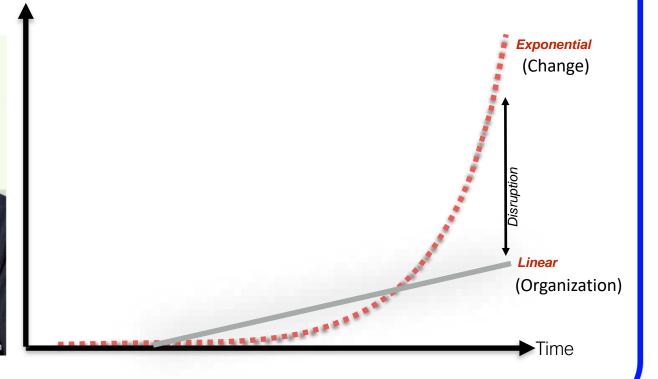
"Our blindspot come from the fact that we lived in a **linear** world but today's change are **exponential**"

Growth

Problem → Dilemmas
Fragile → Agile

Simple, → Complex,
Complicated Chaotic

| Executive Director, Singularity University & Co-Author of "Exponential Organizations" | The Future Organization.com









Jika berhenti berinovasi dan menciptakan keunggulan baru (disruption), bahkan juara yang awalnya pencipta sejarah bisa jadi hanya tinggal sejarah.

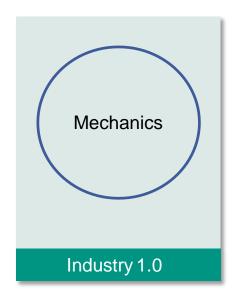


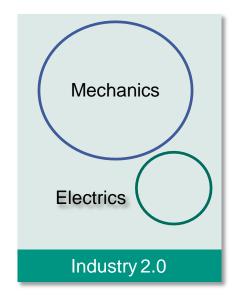


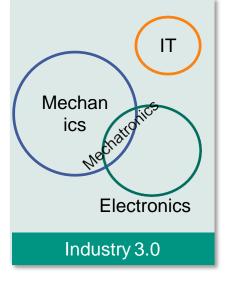
INDUSTRY REVOLUTION 4.0

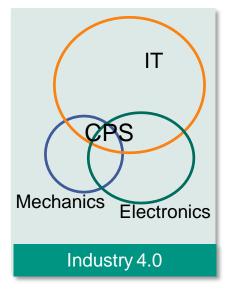


Enabling technologies over industrial revolutions









Dr.-Ing. Hendro Wicaksono



Degree of |

History of industrial revolution

Industry 1.0 Mechanical production



Mechanization hydro- and steam power

End of the 18th century

Industry 2.0 Mass production



Electrification electrical power and vehicle mobility

Industry 3.0 World economy



Automation computer and automation

Industry 4.0 Internet of Things, Service and People



Cyberisation Cyber physical system and interconnections

concrete



abstract

End of the 19th century

Beginning of the 70's

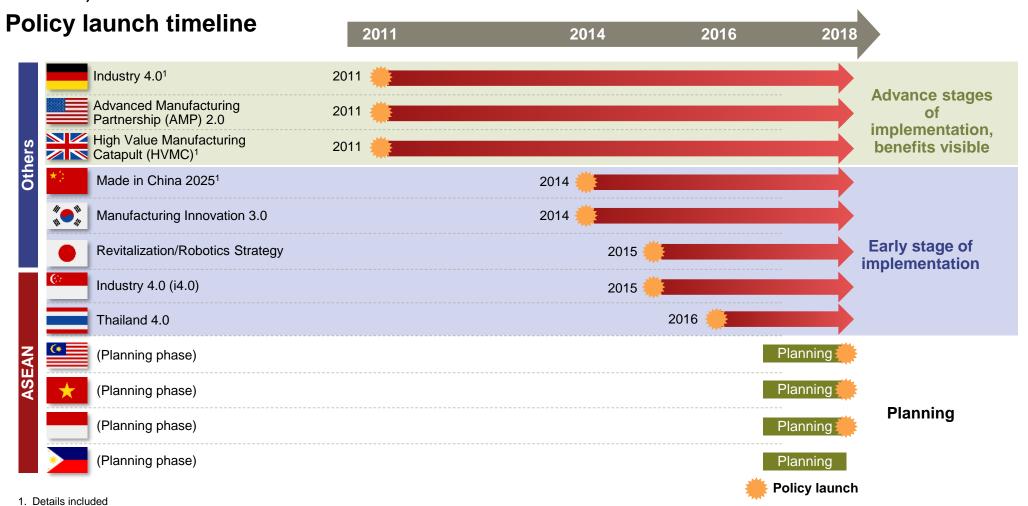
Today

Time

Dr.-Ing. Hendro Wicaksono



Countries, who have launched IR 4.0 related initiatives



Source: A.T. Kearney, press research



5 key lessons learnt from other countries' 4IR policies

Key lessons for Indonesia

Objective Focus Areas

- Setting the right aspiration is important to drive outcome Policymakers should have a clear, actionable, targeted and impactful objective for IR 4 strategy
- e.g. UK aims to double the share of manufacturing in GDP
- We recommend tech + economic indicators for Indonesia
- Priority sectors and key technologies must be identified for effective resource allocation & success stories
 e.g. Germany focusing on IoT and CPS; China -10 focus sectors
- Key points

 Budget & funding model

 Stakeholders

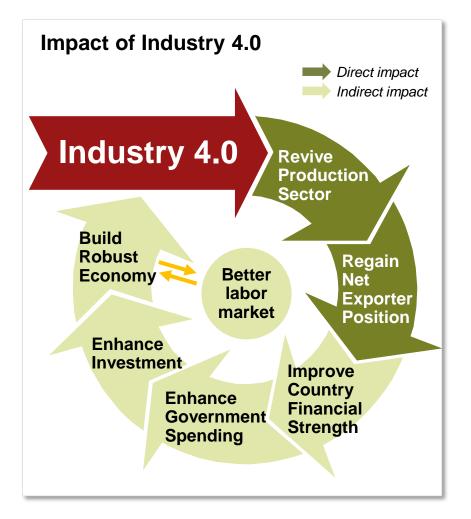
Implications

- Initial state support and funding is needed to kickstart the adoption; however, complementary private investment is equally important
- Successful execution of 4 IR blueprint requires this to be a national agenda with collaborative effort from policy makers, implementing agencies, corporates, technology leaders and research hubs
- Policy should also **address negative implications** of IR 4.0, for example, on SMEs and low skilled labor

Source: A.T. Kearney



Industry 4.0 can revive the Indonesian manufacturing sector; Indonesia should launch "Making Indonesia 4.0" initiative





Based on 2016

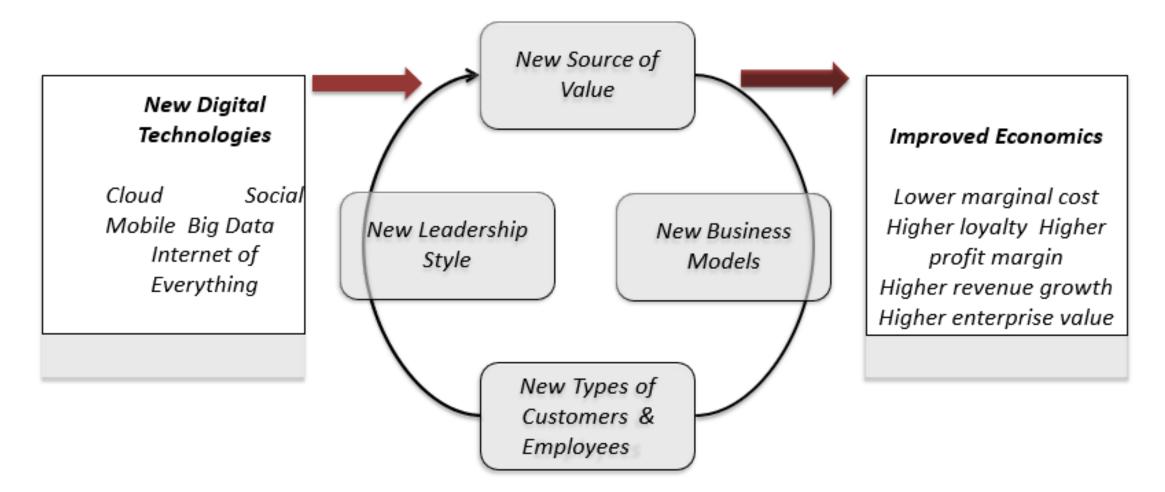
^{2.} Indonesia's R&D spending per GDP is currently around 0.1-0.3% Source: World Bank, A.T. Kearney



DIGITAL TECHNOLOGY BRINGS DISRUPTION



TECHNOLOGY BRINGS DISRUPTION





New Source of Value

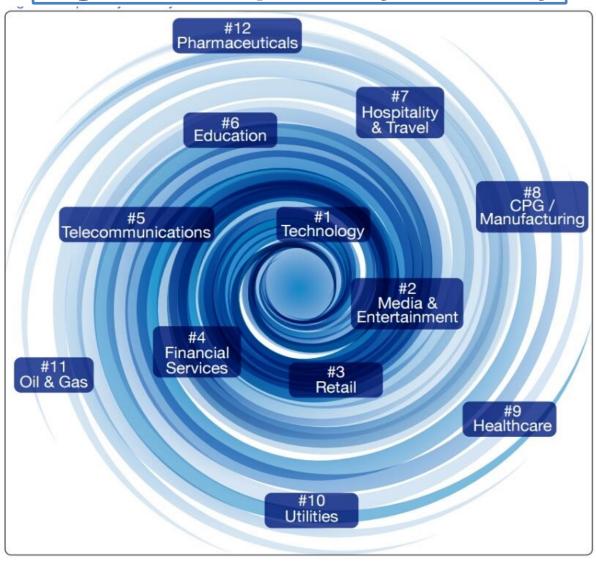
New Leadership Style

New Business Models

New Types of Customers & Employees



Digital Disruption by Industry



New Digital Technologies

Technology Media & Entertainment Retail Financial Services **Telecommunications** Education **Hospitality & Travel** CPG/Manufacturing Healthcare **Utilities** Oil & gas **Pharmaceuticals**

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Disruptive Business Model

THE SUBSCRIPTION MODEL

Customer must pay a returning subscription price to have access to the product/service

NETFLIX

2 THE FREEMIUM MODEL

Customer has free access to the basic service but is charged for additional features



3 THE FREE MODEL

Companies that don't charge the end users (directly). The data and the attention of the users is the currency.



4 MARKET PLACE

Company only facilitates a platform where parties economically interact with each other.



5 ACCESS OVER OWNERSHIP

Customers the use of the product without buying it. "Everything as a service."



6 HYPER MARKET

Digital companies act as hyper stores, offering enormous amounts of products and or services.



7 THE EXPERIENCE MODEL

Company provides the customers with an unseen experience.



8 THE PYRAMID

The company sits on top of the pyramid and lets the revenue stream upwards with the least possible effort.



9 THE ON DEMAND

Generates revenue by the exponential need of people to have things done right away. Speed and convenience matter the most.

UBER

10 THE ECOSYSTEM

Companies build an entire universe of products and services in which customers gets lost without them knowing it.



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External Collaboration

Nike and Apple



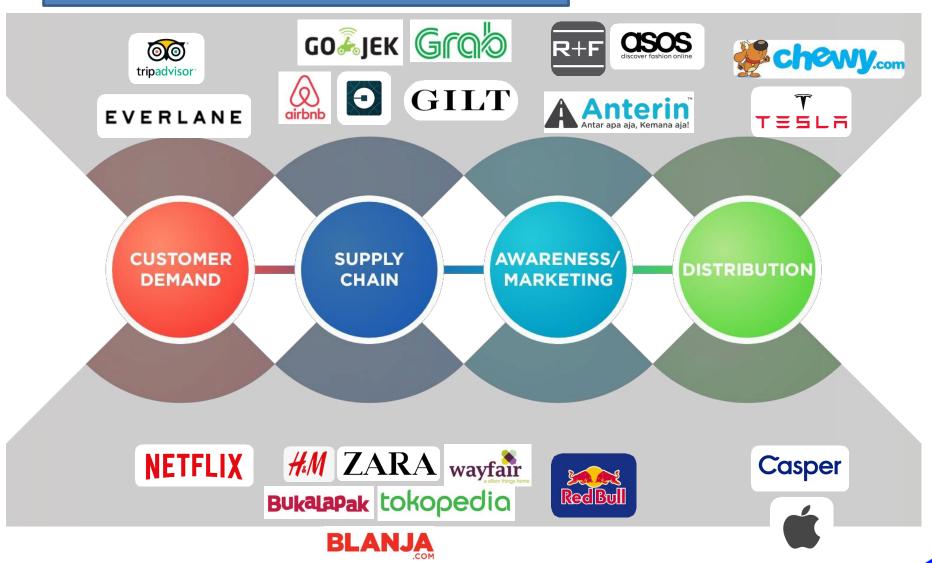


EXPLOITING NEW

OPPORTUNITIES

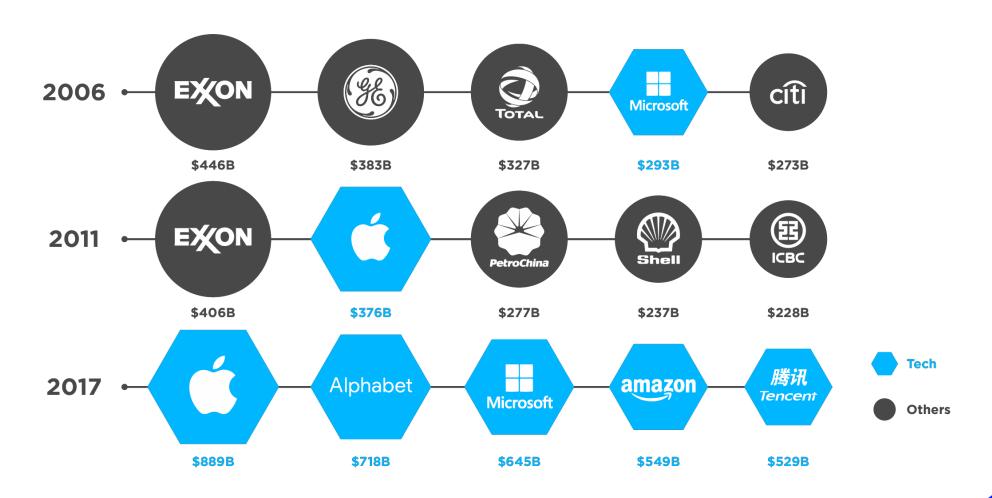
CAPITALIZING ON INCUMBENT WEAKNESSES

Disruption is Everywhere





Top 5 Companies of the World Today are Digital Natives

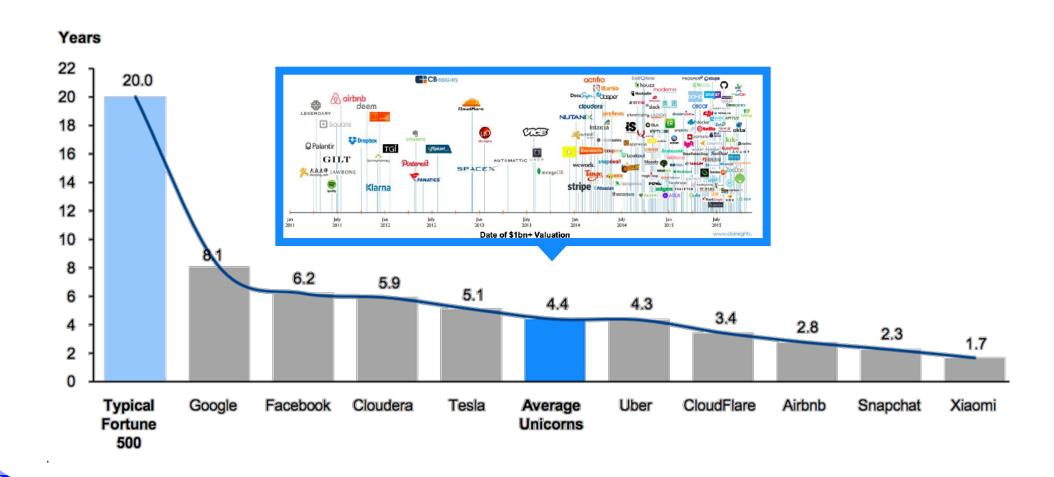


Source: Visual Capitalist, 2017



Rise of the Unicorns

The unicorns are achieving scale far than analog companies ever did. Whereas the Fortune 500 company took 20 years to reach a market capitalization of \$1 billion.





Why Digital Transformation Now?



Digital Transformation represents a potential value opportunity of as much as \$100 trillion by 2025 for both industry and society



Digital business currently accounts for 18% of overall revenue, and predicts a jump to 43% by 2020



Companies that become digital enterprises can look forward to

- 26% increase in profitability
- 12% increase in valuation
- 9% increase in revenue to asset ratio



Since 2000, 52% of companies in the Fortune 500 have either gone bankrupt, been acquired or ceased to exist





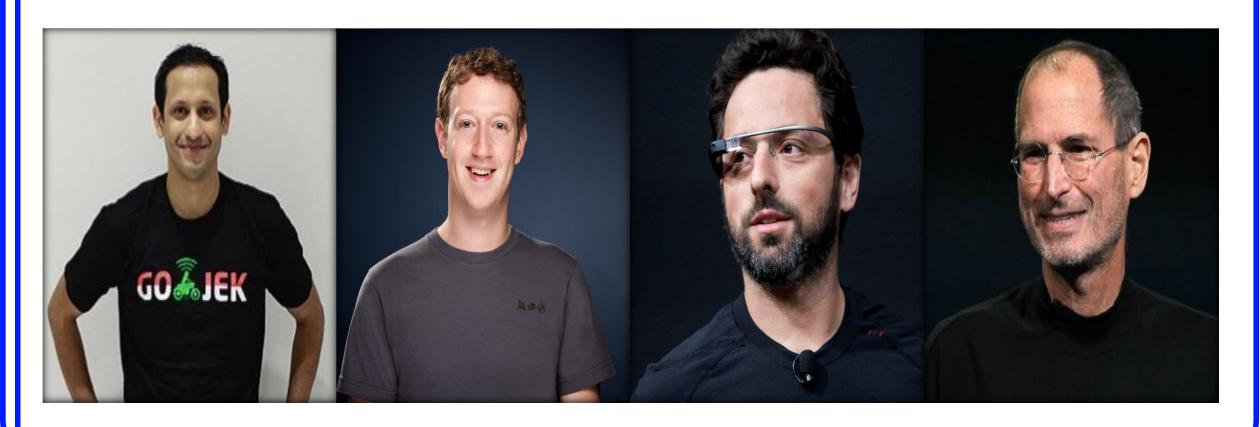
Doing the same thing A'little bit better

Doing new things

Making new things
That
The old things
obsolete



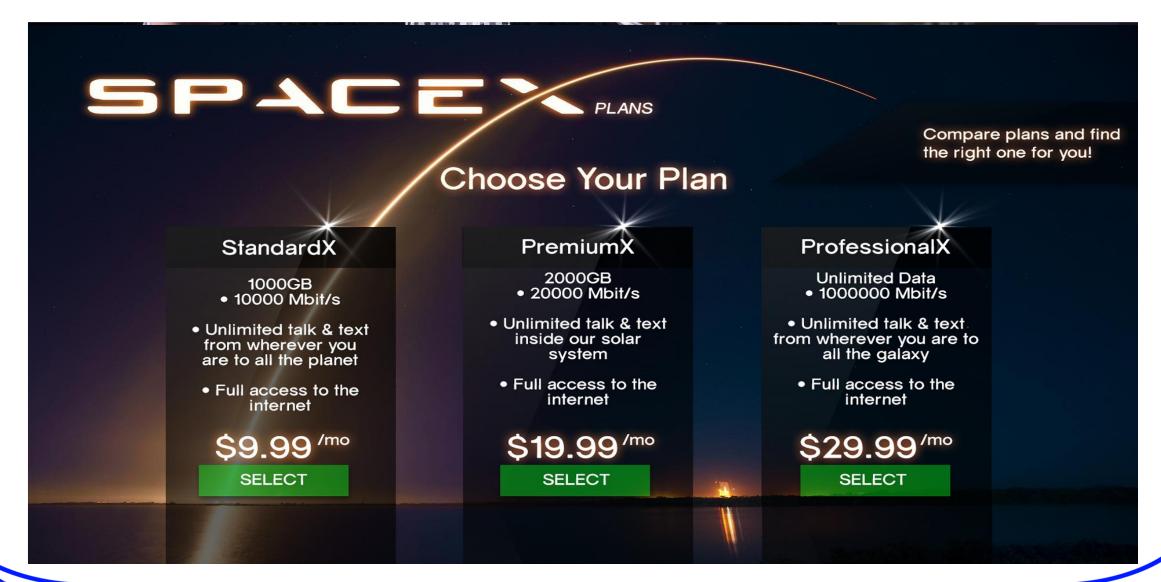
The 21st Century DiSRUPTORS













THE LARGEST COMPANIES BY MARKET CAP

The oil barons have been replaced by the whiz kids of Silicon Valley







Don't Be a know it all, Be a learn it all



Satya Nadella

Chief Executive Officer of Microsoft

In a recent interview with Business Insider, Nadella credits Stanford psychologist Carol Dweck's best-selling book, Mindset, as the inspiration for the culture he's trying to build at Microsoft.

There's no shortage of self-proclaimed experts, authorities, and gurus out there. But self-proclaimed titles aren't only useless, they're dangerous.

"Some people can call it rapid experimentation, but more importantly, we call it 'hypothesis testing.' Instead of saying 'I have an idea,' what if you said 'I have a new hypothesis, let's go test it, see if it's valid, ask how quickly can we validate it. And if it's not valid, move on to the next one."

"There's no harm in claiming failure, if the hypothesis doesn't work. To me, being able to come up with the new ways of doing things, new ways of framing what is a failure and what is a success, how does one achieve success--it's through a series of failures, a series of hypothesis testing. That's in some sense the real pursuit."



UNDERSTANDING MILLENNIALS



HR & Millennials: Insights Into Your New Human Capital

https://www.hrpa.ca/Documets/Public/Thought-Leadership/HRPA-Millennials-

Report-20161122.pdf

Prepared by : Aditya Randika – adityarandika@nilemstudio.com



GENERATIONAL DIFFERENCES

	TRADITIONALISTS	BABAY BOOMERS	GENERATION X	MILLENNIALS
BIRTH YEARS	1900-1945	1945-1964	1965-1980	1977-1994
Assets	Experience;Dedication;Loyalty;Emotional	Service oriented;Dedication;Team perspective;Experience	Adaptability;Techno-literacy;Independence;Willing to buck the system	Collective action;Optimism;Ability to multi-task;Techno-savvy
Liabilities	Reductant to buck the system;Uncomfortable with conflict	Not necessarily budget minded;Uncomfortable with conflict	Skeptical;Distrustful of authority	Need for supervision and structureInexperience
Motivations	 Connecting their actions to the overall good of their organization 	 Leaders who get/them involved and show them how to make a difference 	Permission to work on their own Schedule	 Connecting their actions to their personal career Goals
Preferred methods of communication	Written	Verbal;Personal interaction	Voicemail;Email	Instant messages;Text messages;Email

SOURCE: MURPHY, SUSANA, (2007). KEADING A MULTIGENERATIONAL WORKFORCE. AARP. ACCESSED AT: HTTP;//ASSETS AARP.ORG/WWW.AARP.ORG_/ARTICLES/MONEY/EMPLOYERS/LEADING_MULTIGENERATIONAL_WORKFORCE.PDF



What Millennials Want – How to Attract and Retain Them

MILLENNIALS SEEK A WORK-LIFE BALANCE

Millennial lebih mencari keseimbangan diantara pekerjaan dan kehidupan (work-life balance), untuk itu mereka biasanya meminta waktu kerja yang fleksibel dan hanya sedikit (20%) yang ingin di promosikan apabila promosi tersebut berpengaruh negatif terhadap kehidupan pribadi atau keluarganya.

- Harrington, Brad, Van Deusen, Fred, Sabatini Fraone, Jenifer, Morelock, Jeremiah. (2015). How Millennials Navigate Their Careers

MILLENNIALS DESIRE PROFESSIONAL DEVELOPMENT

Millennial lebih memilih benefit perusahaan dalam bidang pelatihan, baik pelatihan secara formal, mentoring, atau kolaborasi.

https://www.pwc.com/gx/en/managing-tomorrowspeople/future-of-ork/assets/reshaping-the-workplace.pdf

MILLENNIALS CARE ABOUT THEIR SALARY

Tingkat gaji dan kemungkinan untuk peningkatan gaji, merupakan hal penting bagi Millennial. Salah satu penelitian menemukan bahwan 95% dari responden mengatakan bahwa tingkat gaji merupakan salah satu yang sangat penting.

https://www.pwc.com/gx/en/hr-management-services/publications/assets/pwcengaging-and-empowering-millennials.pdf

MILLENNIALS DESIRE OPPORTUNITIES FOR PROMOTION

Menurut Ng dan Schweitzer, kesempatan promosi merupakan salah satu aspek yang sangat penting bagi sebuah perusahaan. Mereka menjelaskan bahwah rata-rata Millennial berharap bisa dipromosikan dalam waktu 15,1 bulan dan hampir 70% Millennial berharap bisa mendapatkan promosi dalam jangka waktu 18 bulan semenjak bekerja.

http://link.spinger.com/article/10.1007/s10869-010-9159-4



RECRUITMENT AND RETENTION:

Provide a flexible and balanced work environment;

Strengthen and promote training and skills development;

Implement a Mentoring Program;

Ensure your organization embraces collaboration;

Ensure salary rates are competitive; and,

Ensure Millennials have an opportunity to grow within your organization



Tugas:

Buatlah analisa mengenai transformasi digital yang terdapat pada jurnal berikut:

Motorized Vehicle Security System With Master And Slave Key Models (Muhammad Nandi Susila, Andriansah, dkk, 2020) https://iopscience.iop.org/article/10.1088/1742-6596/1641/1/012092/pdf