

Discourse Analysis: The Impact of Industrial Revolution 4.0 and Society 5.0 in Indonesia

Dyah Gandasari¹, Diena Dwidienawati^{*2} and Sarwititi Sarwoprasodjo³

¹ Bogor Agricultural Development Polytechnic (POLBANGTAN BOGOR)

²Bina Nusantara University (BINUS)

³Bogor Agricultural University

¹dyah.gandasari@gmail.com, ²diena.tjiptadi@gmail.com,

³sarwititi@apps.ipb.ac.id

Abstract

Industrial Revolution 4.0 is underway. It is an industrial revolution in the 21st century with massive changes in various fields. It is a combination of technologies that reduce or eliminate the boundaries between the physical, digital and biological worlds. Indonesia has experienced changes as a result and adaptation of developments in the industrial world. Industry 4.0 and Society 5.0 have positive and negative impacts. The purpose of this study is to analyze the content of news in online media that informs positive, negative impacts and how to deal with evolution and revolution in the industrial world 4.0 and society 5.0. The study was conducted in January to February 2020. Discourse analysis was conducted on 14 online media and blogs that reported about The Impact of Industrial Revolution 4.0 and Society 5.0 in Indonesia during 2019. Nvivo 12 Plus analysis tool was used. The results showed: The four biggest positive impacts of the 4.0 Industrial Revolution and Society 5.0 in Indonesia are about (1)economical, (2)efficiency and effectiveness, (3)Renewable energy, innovation, technology, and (4)work / job; The four biggest negative impacts of the Industrial Revolution 4.0 and Society 5.0 in Indonesia are (1) work / jobs, (2) HR, (3) social life and (4) social interaction; and there were 11 online articles about How to Face the impact of the Industrial Revolution 4.0 and Society 5.0 in Indonesia.

Keywords: digital, economical, innovation, social interaction

1. Introduction

Industrial Revolution 4.0 is underway. It is an industrial revolution in the 21st century with massive changes in various fields. It is a combination of technologies that reduce or eliminate the boundaries between the physical, digital and biological worlds [1]. The revolution involves massive use of wireless technology and big data. It is marked by the use of new technology in various fields, such as artificial intelligence (AI), internet of things (IoT), quantum computers, advanced robotic, blockchain, nanotechnology, and biotechnology [1]. As previous industrial revolutions, Industry 4.0, and the emergence of Society 5.0, has the potential to improve people quality of life [1].

Society 5.0 is a period when human-centered societies try to balancing the economic progress with the resolution of social problems by using systems that integrate cyberspace and physical space [2]. Society 5.0 will balance economic development and solve social problems [2]. Society 5.0 answers the challenges that arose as a result of the Industrial Revolution 4.0 era which accompanied with disruption. It is characterized by a world of turmoil, uncertainty, complexity, and ambiguity [2].

As the rest of the world, Indonesia also experienced changes as a result and adaptation of developments in the industrial world. Industry 4.0 and Society 5.0 have positive and negative effects for Indonesia.

The purpose of writing this article is to analyze the content of news in online media that inform the positive, negative impacts and how to deal with evolution and revolution in the industrial world 4.0 and society 5.0.

2. Literature Review

The industrial revolution 4.0 is something that cannot be avoided because it has been seen that the use of various kinds of products of the industrial [3]. The 4.0 industrial revolution made it possible for each country to develop themselves and improve their abilities internally in all sectors. National borders would be increasingly reduced by the massive exchange of information in the digital age [3]. Digital transformation will create new values and is becoming a pillar of industrial policy in many countries [4].

Digital transformation has a drastic impact on conventional industries. It has also increased social complexity. It also raised some negative aspects such as security risks and privacy issues, are now becoming apparent [4]. According to Müller et al. (2018), Industry 4.0's attention is too focused on the economic and technological dimensions (Pfeiffer, 2016; Pilloni, 2018). Its social impact must also be taken into account, as well as obviously, the technological impact (Morrar et al., 2017; Moniz & Krings, 2016).

"Society 5.0" was presented as a core concept as an anticipation of such global trends [4]. At the same time, there is a trend towards creating new value through digital technologies and contributing to future society [4]. Society 5.0 is able to address and provide approaches to reduce negative aspects [4]. It is becoming a new wisdom in the social order and will help humans to live more meaningful lives [3]. However, this will require a breaking down of the "five walls" of the technologies, human resources, ministries and agencies, legal systems, and social acceptance [4].

The key to achieving mid- and long-term growth is to realize Society 5.0 that resolves various societal challenges by incorporating into every industry and social life the innovations of the 4th Industrial Revolution [4]. The innovations resolve various societal challenges such as AI, big data, IoT, robotics, sharing economy which have rapidly occurred.

According to Fukuyama (2018) Five strategic fields were selected as being able to leverage Japan's strengths and appeal to the world: "Extension of healthy lifespan", "Realization of mobility revolution", "Creation of next generation supply chains", "Building and development of pleasant infrastructure and towns", and "FinTech". The policies for this strategy such as established of a "new system of health" to further extend a healthy life span will be realized through medical care, nursing care with an emphasis on health management, prevention of sickness, and self-support; the "New Economic Policy Package" in order to implement measures in the "Investment for the Future Strategy 2017" and a human resource development revolution and supply system innovation as key policies [4].

3. Method

The study uses quantitative research designs. The study was conducted for 2 months, January to February 2020. Discourse analysis was conducted on 14 online media and blogs (Table 1) which reported about The Impact of Industrial Revolution 4.0 and Society 5.0 in Indonesia during 2019 using the Nvivo 12 Plus analysis tool. The unit of analysis examined is the number of articles based on positive, negative and How to face it / suggestion categories.

Tabel 1. Media online and blogs which published The Impact of Industrial Revolution 4.0 and Society 5.0 in Indonesia in 2019

No	Media Online/Blog	Number of Articles	No	Media Online/Blog	Number of Articles
----	-------------------	--------------------	----	-------------------	--------------------

1.	academy.getcraft.com	1	8.	Kumparan	1
2.	Alinea id	1	9.	medium.com	1
3.	dailysocial.id_edit	1	10.	perpusnas.go.id	1
4.	economy.okezone.com	3	11.	Puskomedia	1
5.	gatra.com	3	12.	rmol.id	1
6.	its.ac.id	1	13.	um.ac.id	1
7.	Kompasiana	2	14.	warta ekonomi	2
Total					20

4. Result and Discussion

The results of Nvivo analysis showed that: The four biggest positive impacts of the Industrial Revolution 4.0 and Society 5.0 in Indonesia according to news from online media and blogs are about (1) economical, (2) efficiency and effectiveness, (3) Renewable energy, innovation, technology, and (4) work; The four biggest negative impacts of the Industrial Revolution 4.0 and Society 5.0 in Indonesia are (1) work, (2) HR, (3) social life and (4) social interaction. There were 11 articles from online media published about “How to Face the impact of the Industrial Revolution 4.0 and Society 5.0 in Indonesia”. The analysis results can be seen in Figure 1.

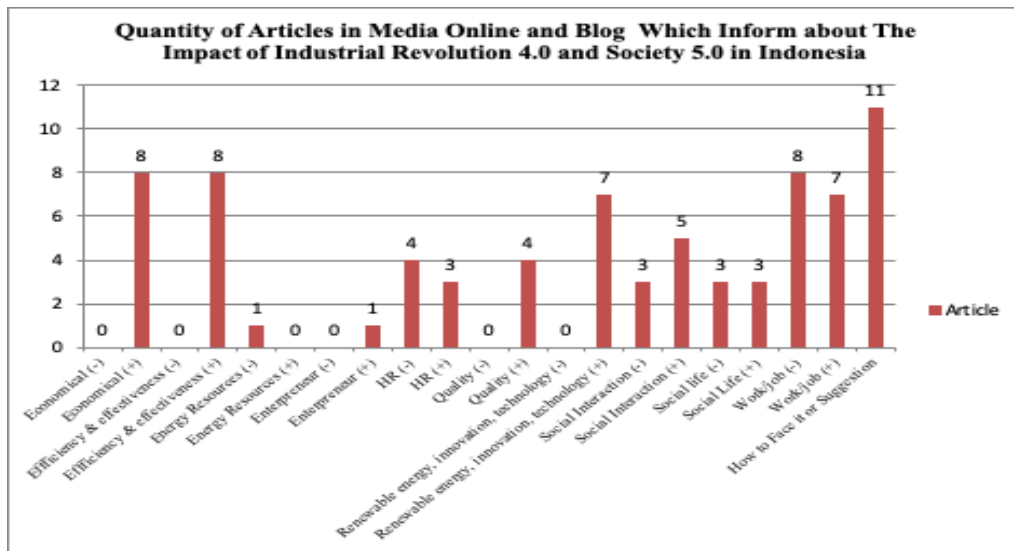


Figure 1. Number of Articles for Particular Items

4.1. Positive Impact

The four biggest positive impacts of the Industrial Revolution 4.0 and Society 5.0 in Indonesia:

1. Economical Impact

- The once-long distribution chain of manufactured goods throughout the world is now cut short. Because, many manufacturing companies around the world are starting to reach their end user products through digital marketing [1].
- With more and more manufacturing companies reaching out to end users directly through digital marketing, both sides benefit. The reason, manufacturing companies can reduce the cost and time of distribution of their products, so that ultimately they can increase their profits. Meanwhile, end users can enjoy products at cheaper and faster prices [1].
- The use of digital marketing in the industrial world also provides huge sales growth potential. Because, digital marketing makes manufacturing companies around the world able to reach the global market easily, efficiently, and effectively [1].

- d) An increase in economic growth in Indonesia by 1% -2% from the 5% baseline, an increase in the contribution of the manufacturing sector to the national GDP by 25%, an increase in net exports to 10% of GDP [5]
- e) Contributing greatly to the economy [5]
- f) The application of technology including agricultural machine tools (alsintan) can increase the productivity of agricultural products [6]
- g) Digitalization has made it possible to concentrate greater economic power[7]
- h) The price of cellphones getting cheaper and the cost of the internet becoming more affordable is a factor in accelerating the transformation of digital technology [8]
- i) Facilitate humans in various aspects. Starting from social life, economy, education, health and so on [9]
- j) Keep working with your digital equipment anywhere and anytime while making lots of money [10]
- k) Everything is replaced by machines that are connected and communicate with each other and make a lot of work no longer requires energy and the human brain [10].

2. Efficiency and Effectivity

- a) The once-long distribution chain of manufactured goods throughout the world is now cut short. Because, many manufacturing companies around the world are starting to reach their end user products through digital marketing [1].
- b) Shorten the distribution chain or even reach the end user of the product directly [1].
- c) With more and more manufacturing companies reaching out to end users directly through digital marketing, both sides benefit. The reason, manufacturing companies can reduce the cost and time of distribution of their products, so that ultimately, they can increase their profits. Meanwhile, end users can enjoy products at cheaper and faster prices [1].
- d) The use of digital marketing in the industrial world also provides huge sales growth potential. Because, digital marketing makes manufacturing companies around the world able to reach the global market easily, efficiently, and effectively [1].
- e) An increase in economic growth of 1% -2% from the 5% baseline, an increase in the contribution of the manufacturing sector to the national GDP of up to 25%, an increase in net exports of up to 10% of GDP[5]
- f) The application of technology includes agricultural machine tools (alsintan) to increase agricultural productivity [6].
- g) Facilitate humans in various aspects. Starting from social life, economy, education, health and so on[10]
- h) But working with digital equipment anywhere and anytime while making a lot of money. [10].
- i) Everything is replaced by machines that are connected and communicate with each other and make a lot of work no longer requires energy and the human brain [10]

3. Renewable Energy, Innovation, Technology

- a) Among them are renewable energy for electricity, buildings and transportation; electric vehicles; and online transactions. Some of the realization has been seen, one of them is in the synergy of BUMN to present LinkAja's integrated e-money platform. Including electric vehicles that have begun to be encouraged innovation by industry and academics [10]
- b) Artificial intelligence (AI), advanced robotic, internet of things (IoT), 3D Printing, and Augmented Reality / Virtual Reality (AR / VR) [5]
- c) Where data input is no longer manual, but already uses electronic equipment [11]
- d) Integrated information technology between equipment [11]
- e) e-office and chatbot [12]
- f) Through this information technology it can more easily control several cases related to JR insurance [13]

- g) cloud computing technologies, mobile internet, and intelligent machines (artificial intelligence). This technology is then combined into a new generation that is used to drive tractors so that they can operate without operators, drone aircraft for nutrient detection, and robot grafting [5]
- h) new technology-based investment [14]
- i) Development of innovation ecosystems, incentives for technology investment [14] [15]
- j) Technology is improved so that it can make it easier for humans in various aspects. Starting from social life, economy, education, health and so on [9].

4. Work

- a) There are several types of jobs that are increasingly needed [16].
- b) In general, digitalization has more positive impacts to support life and work [16].
- c) A new job has appeared. For example, speaking 10-15 years ago, jobs have not bloomed such as data scientist, AI bot trainer, UX researcher, even social media manager [16].
- d) New business activities [12] are emerging.
- e) Bring up a new business [7].
- f) Creation of new jobs [15]
- g) Opening opportunities for the creation of new types of work [8]
- h) 7 million new jobs will emerge as a result of the digital economy [17]
- i) Open various new jobs (warta.ekonomi)
- j) Opportunities to create new jobs, especially digital based (warta.ekonomi).

Four biggest positive impacts of the Industrial Revolution 4.0 and Society 5.0 in Indonesia word cloud analyzes the words that often appear are effective, efficient, profit and easier (Figure 2).



Figure 2. Positive Effect of Industry Revolution 4.0 and Society 5.0

4.1. Negative Impact

The four biggest negative impacts of the Industrial Revolution 4.0 and Society 5.0 in Indonesia:

1. Work

- a) Some other work is no longer needed [16].
- b) The type of work that is starting to disappear [16].
- c) Dissolve conventional established businesses that have been around for a long time [7]

- d) The use of robots in warehousing operations and the use of drones for shipping goods has posed a threat to the availability of jobs [7]
- e) The Labor Institute notes, as many as 100,000 people lost their jobs in 2018 due to digitization and automation [7]
- f) f. Threatening layoffs for workers in Indonesia [15]
- g) Loss of job or layoff [15]
- h) h) Number of job losses due to change into automation [15]
- i) The unemployment rate will increase [15]
- j) There are types of jobs that have been lost due to dependence [8]
- k) 52.6 million potentially lost jobs [17]
- l) The industrial revolution 4.0 will cause 75 million to 375 million jobs lost due to the collapse of various companies as a result of automation and digitalization [10].

.2. Human Resources (HR)

- a) To realize the mission, readiness is needed in many ways. One of the issues now is about human resources with adequate technological competence. This complaint is almost felt by all industries that are moving toward digital. Chairperson of the Indonesian E-Commerce Association (idEA) Ignatius Untung said, in the e-commerce landscape alone the engineer's needs now reach hundreds of thousands of people and only about 60% are met. On average companies such as e-commerce have a 50-60% employee portion of the engineer [16].
- b) In other sectors, banking for example, digitalization also starts to have a real impact. According to the Deputy Commissioner of the Financial Services Authority (OJK) of the Voluntary Batunanggar Institute, the shift in consumer interest to digital banking has made around 1,000 bank branches closed in the last three years. The number of bank branch offices decreased by 3%. The closing of a bank branch means reducing the number of employees that need to be allocated, while decreasing the growth of bank branches reduces the potential for employment [16].
- c) It's just that there are still many underage children who are using the wrong technology in the field they should [15]
- d) Lack of adequate skills [15].
- e) The population of the older generation will increase [8]
- f) Integrated productive population crisis[8]
- g) Workers' educational profiles such as this are a serious challenge in the transformation of labor into the era of the Industrial Revolution 4.0 or Society 5.0 [8]

3. Social Life

- a) A world full of turmoil, uncertainty, complexity, and ambiguity [2].
- b) Most of their social lives are still "conventional" [2] [2].
- c) Local transportation service providers that still use conventional systems [2]
- d) The morals of the Indonesian people, Indonesian culture, and national identity are scratched by the entry of foreign cultures that are increasingly difficult to filter [18].

4. Social interaction

- a) Reducing social interaction [12].
- b) The spread of hoaks and lies that threaten the pillars of the nation and state [12].
- c) The meeting point between stakeholders is the problem of online transportation applications (a type of Go-Jek and others). How "excited" are those local transportation service providers who still use conventional systems when faced with competition in the transportation business that is completely online [2]
- d) National boundaries seem to disappear ilter [18].

Four biggest negative impacts of the Industrial Revolution 4.0 and Society 5.0 in Indonesia word cloud analyzes the words that often appear are effective, efficient, profit and easier (Figure 3).



Figure 3. Negative Effect of Industry Revolution 4.0 and Society 5.0

4.3. How to Face the impact/Suggestions

a) The three highest abilities needed [2]

The three highest abilities needed to deal with super smart society are the ability to solve complex problems, think critically, and be creative. Ways of thinking that must always be introduced and accustomed to are ways of thinking to adapt in the future, namely analytical, critical, and creative Or high-level thinking (HOTS: Higher Order Thinking Skills).

Learning models that can be provided such as discovery learning, project based learning, problem based learning, and inquiry learning. All of these models teach and develop students' critical reasoning.

The habit of HOTS is also obtained with students being introduced and experiencing firsthand the real world situation. By recognizing the real world, students will recognize the complexity of the existing problems. Such as environmental issues, health, earth and space, as well as the use of science and technology in various aspects of life.

The introduction of the real world is not only limited to the surrounding environment. But a universal environment that can be explored using online page facilities. This will improve the quality of students themselves, namely the opening of global insights as part of the world community.

The use of mobile phones, tablets, or laptops along with an internet connection, can be used as part of learning activities. Search for teaching materials as discussion material or the use of various learning videos that are available free on various educational sites such as Khan Academy, Amazon Education, Teacher's room, Wikipedia, and others. The most important thing is to wisely use technology so that it gives positive meaning to learning activities.

b) From an industry perspective the answer is very straightforward. They are very thirsty with talents in the field of technology. So how does the academic sector think about that phenomenon? Some time ago DailySocial had conducted interviews with several lecturers from universities that produced graduates in technology. One of them is Romi Satrio Wahono, lecturer at several IT universities in Indonesia and Founder of Brainmatics. He believes students should be invited to be proactive [16].

c) The curriculum developed by the university can be a motivator to invite students to connect with practitioners, the community, or teaching material that is open on the internet [16].

- d) Companies must learn new technology continuously, so they can understand, appreciate, and utilize it to deliver solutions. Companies need to invest in employees by providing training. Including the government also needs to make policies that allow new technology to be elaborated in many sectors [16].
- e) Technological development cannot be braked, so in terms of preparing human resources that must be more adaptive. Academic institutions must be able to quickly adjust the teaching curriculum in accordance with industry needs. Vocational schools need to start replacing new concentrations of existing majors to keep pace with the digital transformation that the company continues to intensify [16].
- f) The role of government is also very central to being a "composer", ie ensuring all components participate in the alignment. When academics have begun to improve, the government needs to encourage the industrial sector to open wide opportunities for collaboration to ensure the relevance of materials taught in various ways, ranging from internship opportunities to CSR fund allocations [16].
- g) Investing in research and development needs to be a serious agenda. It is not just about the budget, but rather how regulations regulate so that all can participate in these activities. Research and technology centers are important to have. The impact is indeed not in the short term, but on the readiness and anticipation for changes that will occur in the future [16].
- h) Like the economic activities that have already taken place, the digital economy also consists of micro, macro, trade and financial aspects. To ensure balance and synergy, appropriate legal instruments are needed ([16].
- i) On the regulatory side, for example related to aspects of data privacy, intellectual property, and taxation that still needs to be adjusted a lot [16].
- j) On the labor side, the government through the Minister of Manpower is preparing to improve Law No. 13 of 2003. From the studies that have been carried out, one focus that will be summarized is on the competence and productivity of labor. One of the realization is in the training program to adjust the industry sector that is involved in [16]. The Creative Economy Agency (Bekraf) actively organizes various HR competency development programs in various creative economic subsectors throughout Indonesia. The programs include Orbit, SCARA, LOCK, Create, IKKON, Docs by The Sea, BIGGER, BEACON, Bekraf Creative Labs, Bekraf Developer Day (BDD), Bekraf for Pres Startup, Finance Class, professional certification, Commission training Regional Films (KFD) and others [19].
- k) Innovation and utilization by farmers needs to be encouraged, "he said. He said the Ministry of Agriculture's budget for mechanization and Alsintan assistance had now risen 2,000%. Balitbangtan engineers were encouraged to innovate by providing incentives in the form of royalties. He also asked a number of important stakeholders including a number of heads regions, the Head of the BPPT Training Center, the Head of PUSPIPTEK, and representatives from a number of campuses, alsintan companies, and engineers, to encourage the agricultural sector to be more competitive [6].
- l) The government needs to strengthen the security system of the Indonesian people so that confidential data about the state is not easily summarized [18].
- m) The government must be able to provide more quality service to the public to obtain a sense of security and peace. Various public services must be more efficient, both time and cost efficient. On the other hand, of course security problems will become increasingly complex, this challenge must be able to be faced by governments that work in synergy with the people of Indonesia [18].
- n) The prerequisite of electricity support is absolutely needed in accessing digital technology. Because the electricity failure of IT hardware will cause failure of all subsequent digital accesses and activities. This is important, bearing in mind the

availability of energy for our nation and country today and even the future is a very serious problem. It can even trigger an energy crisis [8]

- o) There is a need for commitment to the management of the country and companies to focus and prepare adequate planning and financing for the implementation of up skilling, social security net and funding. So that they can become agents of technology as superior human resources (SDM) [8]
- p) The government must increase research and development (R&D) funding even greater than that of only 0.3 percent of GDP (gross domestic product). To be able to compete with other developing countries [8]
- q) Industrial intelligence needs to be developed as a means of supporting the development and expansion of global business from our national strategic industries. Also, it must be kept away from the political interests and elite political parties in its management so that the focus on developing national strategic industries is truly in the national interest [8]
- r) Related to the Industrial Revolution 4.0 and Society 5.0 all sectors must transform, including the maritime sector especially wanting to make Indonesia a world maritime corpse. Also in it, there are upstream oil and gas sectors which are onshore and offshore that are ready to transform towards the era of Industry 4.0 and Community 5.0. because the industry has long been using computer-based high technology, which is full of high risk, has very large capital and has professional human resources [8]
- s) There is a need for commitment to state and company management to focus and prepare adequate planning and financing for implementing up skilling, social security net and funding. So that they can become agents of technology as superior human resources (SDM) [8]
- t) The government must increase research and development (R&D) funding even greater than that of only 0.3 percent of GDP (gross domestic product). To be able to compete with other developing countries [8]
- u) Industrial intelligence needs to be developed as a means of supporting the development and expansion of global business from our national strategic industries. Also, it must be kept away from the political interests and elite political parties in its management so that the focus on developing national strategic industries is truly in the national interest [8]
- v) Related to the Industrial Revolution 4.0 and Society 5.0 all sectors must transform, including the maritime sector especially wanting to make Indonesia a world maritime corpse. Also in it, there are upstream oil and gas sectors which are onshore and offshore that are ready to transform towards the era of Industry 4.0 and Community 5.0. because the industry has long been using computer-based high technology, which is full of high risk, has very large capital and has professional human resources [8]
- w) Synergize to produce resilience and resilience with all components of the nation and state to guarantee national welfare and security as well as to actively participate in maintaining world order and peace [8]
- x) To welcome the community 5.0 technology must be developed from the basis of one of them is a population management system so as to facilitate the integration of community services such as education and health [9]
- y) In order to help humans achieve more meaningful lives in the era of society 5.0. need a humanistic approach in clinical psychology, educational psychology and social psychology. Clinical Psychology provides insights in relation to solutions to the negative impact of technology. Educational Psychology can provide an explanation of the learning process that prioritizes aspects of humanity. Whereas Social Psychology discusses the social role of humans [20].
- z) The SMEs must be able to motivate, especially among the younger generation (millennial) to not always think of being employees or civil servants. But must be

- able to invite them to become an entrepreneur [21]
- aa) Synergy and collaboration with all stakeholders is needed, so that the national entrepreneurship ratio can reach the level of 5% (economic news).
 - aa) Provide assistance and training for SMEs, especially in facing this digital economic era [21]
 - bb) Only creativity cannot be replaced by a machine. Therefore, millennial generation must be creative if they do not want to be left behind in this era [10].

From 11 articles from online media about How to Face the impact of Industrial Revolution 4.0 and Society 5.0 in Indonesia, the most frequent words show up from word cloud analysis are learning, increasing, humanistic, think (Figure 4).



Figure 4. How to face the Industry Revolution 4.0 and Society 5.0

5. Conclusion and Suggestion

According to online media and blogs the positive impact of the Industrial Revolution 4.0 and Society 5.0 in Indonesia out of 8 articles, the 4 highest are about economical; efficiency and effectiveness; Renewable energy, innovation, technology and work. The negative impact of the 8 articles discussed by online media, the 4 biggest are about work; HR; social life and social interaction. There are 11 online media articles which published news about How to Face the impact of the Industrial Revolution 4.0 and Society 5.0 in Indonesia. They include the humanistic approach; increasing the ability of HR in solving complex problems, critical thinking, and creativity; increasing HR competencies and adjusting to industry needs; motivate young people to become entrepreneurs; increase research and development (R&D) funding by the government to be able to compete with other countries, the government needs to make regulations that regulate so that all can participate and work together and need to strengthen the security system; and transformation of all sectors.

The limitation of this study is the short research time of 1 year and only online media and blogs. It is necessary to analyze other media such as journals and theses to enrich research into discourse analysis.

References

- [1] Imarketology, "Dampak Revolusi Industri 4.0 pada Pemasaran Digital." Academy, 2019.
- [2] Kurniawan Adi Santoso, "Pendidikan untuk menyambut masyarakat 5.0." Alinea, 2019.
- [3] H. Y. Raharja, "Relevansi pancasila era industry 4.0 dan society 5.0 di pendidikan tinggi vokasi," *J. Digit. Educ. Commun. Arts*, vol. 2, no. 1, pp. 11–20, 2019.

- [4] B. M. Fukuyama, "Society 5.0: Aiming for a New Human-Centered Society," *Japan Spotlight*, no. July/August, pp. 47–50, 2018.
- [5] D. J. Akhir, "RI Pamer Kekuatan Industri 4.0, Fokus ke 5 Sektor Ini." *Economy*, 2019.
- [6] Gatra, "Mentan Genjot Alsintan Dukung Revolusi Industri 4.0." 2019.
- [7] ITS, "Bagaimana Industri 4.0 dan Society 5.0 Bantu Ciptakan Kesejahteraan." ITS, 2019.
- [8] S. Soemarwoto, "Arah Baru Perpaduan Era Revolusi 4.0 dan Masyarakat 5.0." Perpusnas, 2019.
- [9] Puskomedia, "Masa Depan Baru Indonesia." Puskomedia, 2019.
- [10] D. Lestari, "Revolusi Industri 4.0 Sebabkan 375 Juta Pekerjaan Hilang, Milenial Harus Siap." *Warta Ekonomi*, 2018.
- [11] Giri Hartomo, "Tantangan Besar di Era Industri 4.0, Semua Harus Serba Cepat." *Economy*, 2019.
- [12] Gatra, "Mensos Singgung Dampak Negatif Revolusi Industri 4.0." 2019.
- [13] Gatra, "Jasa Raharja Berinovasi Sambut Revolusi Industri 4.0." Gatra, 2019.
- [14] N. R. Yunda, "Dampak Revolusi Industri 4.0 dan Society 5.0 Menciptakan Kesempatan Baru bagi Indonesia." *Kopasiana*, 2019.
- [15] H. Syarif-A, "Dampak Revolusi Industri 4.0 dan Society 5.0 bagi Generasi Milenial di Indonesia." *Kopasiana*, 2019.
- [16] Daily Social, "Nasib Buruh di Era Digital." 2019.
- [17] H. Adam, "Revolusi Industri 4.0 Atau Society 5.0?" *rmol*, 2019.
- [18] Alvi Muhamad, "Dampak Revolusi Industri 4.0 dan Society 5.0 terhadap Ketahanan Nasional Bangsa." 2019.
- [19] D. J. Akhir, "Bekraf Geber Kualitas SDM Hadapi Industri 4.0." *Econom*, 2019.
- [20] U. A. Fitriya, "Kehidupan Bermakna di Masyarakat 5.0 Berdasarkan Perspektif Psikologis." *UM*, 2019.
- [21] N. Rahayu, "Revolusi Industri 4.0: Era Baru UKM Indonesia." *Warta Ekonomi*, 2019.