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The application of social philosophy in the era of revolution industry 4.0 in Indonesia

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ABSTRAK

Kehadiran filsafat sosial umumnya dipahami berkaitan erat dengan filsafat umum. Filsafat sosial dapat melihat bagaimana hubungannya dengan alam semesta sehingga menghasilkan interpretasi kehidupan sosial. Filsafat sosial, filsafat ilmu pengetahuan, dan ilmu pengetahuan sendiri merupakan bagian dari upaya manusia untuk memahami konsep dan metode suatu disiplin ilmu yang dapat diimplementasikan dalam perubahan zaman dan kemajuan. Penelitian ini bertujuan untuk mengkaji penerapan filsafat sosial dan relevansinya di era Revolusi Industri 4.0. Penelitian ini menggunakan metode analisis deskriptif dengan pendekatan studi pustaka. Filsafat sosial sangat diperlukan di tengah perkembangan zaman dan peradaban, seperti era Revolusi Industri 4.0 saat ini. Dengan semakin dekat dengan filsafat sosial, diharapkan manusia dapat menyadari keterbatasannya sekaligus menumbuhkan sikap dan jiwa yang sadar akan perkembangan zaman. Penggunaan teknologi harus bermanfaat bagi kesejahteraan seluruh manusia. Sehingga, diharapkan dapat meminimalisir permasalahan terkait perkembangan teknologi yang dapat mengubah pola pikir kehidupan manusia menjadi pola hidup yang lebih canggih. Dengan demikian, ilmu sebagai pegangan digunakan dalam mengarahkan vang dan mengendalikan perkembangan tersebut secara positif untuk kepentingan umat manusia dan lingkungannya adalah filsafat dan filsafat sosial.

Kata Kunci: Aplikasi, Filsafat Sosial, Revolusi Industri 4.0

ABSTRACT

The presence of social philosophy is generally understood to be closely related to general philosophy. Social philosophy can see how its relation to the universe can result in interpretations of social life. Social philosophy, philosophy of science, and science itself are part of human efforts to understand a discipline's concept and method that can be implemented in changing times and progress. This study aims to examine the application of social philosophy and its relevance in the era of Industrial Revolution 4.0. This research uses a descriptive method of analysis with a literature study approach. Social philosophy is indispensable in the midst of the development of times and civilizations, such as the current era of the Industrial Revolution 4.0. By getting closer to social philosophy, it is hoped that humans can realize their limitations while cultivating an attitude and soul that is aware of the development of the times. The use of technology must benefit the welfare of all humans. So, it is hoped that it can minimize problems related to the development of technology which can change the mindset of human life to a more sophisticated life pattern. Thus, the science

Keywords: Application, Social Philosophy, Industrial Revolution 4.0 used as a handle in directing and controlling these developments positively for the benefit of humanity and its environment is the philosophy and social philosophy.

I. INTRODUCTION

The presence of the Industrial Revolution 4.0 era, known as the digital revolution and the age of technological disruption, is an official Industrial 4.0 term born in Germany at the time of the Hannover Fair in 2011 (Kagermann et al., 2011). The history of the Industrial Revolution dates back to industry 1.0, 2.0, 3.0, to the Industrial Revolution 4.0. Industry 1.0 is characterized by production mechanization to support the effectiveness and efficiency of human activities, and industry 2.0 is characterized by mass production and quality standardization. In contrast, industry 3.0 is characterized by mass adjustment and flexibility of automation and robot-based manufacturing. Furthermore, the current era appears the term Industry 4.0, which is characterized by cyber physic and manufacturing collaboration (Irianto, 2017).

The era of the Industrial Revolution 4.0 is a new era for an industry where many use sophisticated virtual technology so that it becomes a driver for the emergence of new ideas, new creations, and something old redesigned to innovate in developing new technologies that have an impact on disruption to people's lives at large. The Industrial Revolution 4.0 consisted of technical assistance such as virtual and physical assistance, the focus on interconnection including collaboration, standards, and security, the focus on information transparency, namely data analysis and the provision of information, and the principle of decentralized decisions (Hermann et al., 2016).

The presence of the Industrial Revolution 4.0 gave rise to various challenges and demands that cannot be avoided. In facing the challenges and opportunities of the Industrial Revolution 4.0., Wolter identified the challenges of the Industrial Revolution 4.0 including; 1) information technology security issues; 2) reliability and stability of production machines; 3) lack of adequate skills; 4) reluctance to change from stakeholders; and 5) the loss of many jobs as it has turned into automation using the role of technology (Sung, 2018). The presence of various kinds of changes can also be studied using a philosophical, scientific perspective (social philosophy).

Philosophy is the activity of thinking, that is to say, in a dialogical relationship with others, he sought to formulate arguments to obtain Assessment. Philosophy is essentially open and tolerant. Philosophy is not a belief or dogmatics (Meuwissen, 2007).

So that everyone with different disciplines who want to study social sciences, such as anthropology, education, economics, psychology, history, law, including sociology, will be able to wade through it with discussions that use social philosophy. Social philosophy is like a beacon to the existing social sciences. On the one hand, social philosophy is considered the pinnacle of the existence of the current sciences, in this case, the social sciences. On the other hand, social philosophy has the effect of illuminating the surrounding social sciences so that the disposition of the social sciences is not static, stagnant, or stops developing new vehicles, discourses, and scopes of the social sciences. Therefore, in the era of postmodernism, as it is today, sociology no more extended limits itself only to the area of study of the structure of society, especially those based on strict scientific method rules, but also breaks through and crosses other disciplines such as culture, psychology, anthropology, religion, even closely related to the sciences of experience (microcosm-macrocosm interconnection).

The existence of social philosophy, in general, is directly related to public philosophy. Because its object is part of the scientific substance of philosophy, social philosophy can see how the interpretation of a materialist concerning the universe can have repercussions on its performance in social life; this is also the case with the understanding of an ideal dual and spiritualist.

Social philosophy generally has two activities: the conception that explains what is sober (what is) and the normative thing that defines what should be (what it really ought to be). The first gave birth to sociology, social psychology, economics, and history with its social theories, and the second gave rise to political philosophy, ethics, and law. So social philosophy is not only filled with explanations about society but also explanations about how to change society (Priyanto & Muslim, 2021).

Some people understand by referring to social philosophy as a philosophy of society (philosophy of culture), But society as a structure that exists in the individual's existence; that is what can be more philosophically reviewed. Social philosophy is a philosophical study of issues about social behaviour and seeks to understand society's patterns and nuances, changes, and tendencies. Social philosophy is a broad field of discussion with many subdisciplines, including discussions related to modernity in the era of the Industrial Revolution 4.0.

The significant contribution of science that supports the progress of science today, historically starting from rationalism with his character Rene Descartes, empiricism with his character John Locke, and criticism with his character Immanuel Kant and culminating in the thought of Agust Comte with his school of positivism. Here philosophy becomes more practical for the behaviour of human deeds so that it no longer sees the importance of thinking abstractly (Tasnur & Sudrajat, 2020). Not too long ago, the postmodern understanding came, which was inseparable from modernism itself and contained an all-advanced, glittering, and progressive meaning.

Likewise, philosophy and science having a relationship are all part of human activities. Human activities are defined in a process as well as its results. When viewed from the results, both result from conscious human thinking. When viewed in terms of the process, it shows an activity that seeks to solve problems in human life. Science is also analytical, and science only works on one of the fields of knowledge as its formal object (Varpio & Macleod, 2020). Whereas philosophy learns from science by emphasizing the whole of something (synoptic) because the whole has its properties that are not present in its parts. Science is descriptive about its object to find facts, techniques, and tools (Zaprulkhan, 2016).

Philosophy not only describes something but instead helps man to make decisions about goals, values, and what man should do. Philosophy is not neutral because subjective factors play an essential role in philosophizing; science begins with assumptions. Philosophy also has beliefs and investigates them or ponders them because it doubts them. Science uses controlled experimentation as a typical method. Verifying the theory is done by testing it in practice based on sensing. Whereas philosophy utilizing reason is based on all human experiences, thus philosophy can examine problems that cannot be solved by science (French & McKenzie, 2016).

Science equips philosophy with descriptive and factual materials that are important for building philosophy. Each philosopher and a period is more inclined to reflect the scientific outlook of that period. Meanwhile, science checks philosophy by eliminating ideas incompatible with scientific knowledge. Whereas philosophy takes dismembered knowledge and various sciences, then organize them into a more perfect and unified view of life.

In this connection, the advancement of science has encouraged us to look back at our ideas and interpretations, both in science and in other fields. As one example, the concept of evolution pushes us to revisit our thinking, almost in all areas. Philosophy's further contributions to science are criticisms of assumptions, postulates of science, and analysis of complaints about the terms used (Prof. Dr. Juhaya S. Praja, 2020). Based on the explanation above, problems can be formulated, namely related to how social philosophy relates to the era of the Industrial Revolution 4.0 in Indonesia.

II. RESEARCH METHOD

The method used in this writing is descriptive-analytical. The descriptive-analytical method is a discussion method to explain the data that has been compiled by conducting a study of these data. Meanwhile, the data collection technique used is a literature study. A literature study is a theoretical reference and other scientific literature related to culture, values, and norms that develop in the social situation under investigation (Sugiyono, 2016).

III. RESULT AND DISCUSSION

The etymological use of the term "philosophy" is an equation of the words philosophy (Arabic) and philosophy (English), derived and Greek (*Philosophia*). The word philosophy is a compound word consisting of the phrase (*Philos*) and (*Sophia*). The word *Philos* means lover; it can also tell best friend. While *Sophia* means wisdom or wisdom, it can also mean knowledge (Jan Hendrik Rapar, 1996). Philosophia means the one who loves learning or

the best friend of learning. The term philosophy has been translated into "philosophy," the objective being "philosophy" and not "philosophical." When referring to the person, the right word is used, namely "philosopher' and not "philosopher" (Suaedi, 2016). Unless the word "philosophy" and not "philosophy" is used, then the proper objective is "philosophical," while the one referring to the person is the word philosopher.

Philosophy is strongly associated with the tradition of Western thought. Scientists agree that philosophy was first present in Greece in about the 7th century BC. At the beginning of the emergence of the development of philosophy, science was still an inseparable part of philosophy. The term nature knew the pattern of philosophical thought at the beginning of its emergence. The figures who had a significant influence were Thales and Anaximander. In addition, in the history of philosophy, several categorizations and philosophers are known who lived in different periods. The categories are philosophy of classical philosophy, medieval philosophy, and modern philosophy (Agriyanto & Rohman, 2017).

In classical philosophy, the emergence of Socrates marked the beginning of the philosophy of the classical period. The names of famous classical philosophers include Socrates (470-399 BC), Plato (427-374 BC), Aristotle (384-322 BC), and Plotinus (205-70 BC). Whereas in medieval philosophy came great names such as John Scotus Eriugena (815-877 AD), Saint Anselmus (1034-1109), Roscellinus (1050-1120 AD), and Saint Thomas Aquinas (1225-1247 AD). Meanwhile, the influential modern philosophy was Copernicus (1473-1543), Kepler (1571-1630 AD), Galileo Galilei (1564-1642), Rene Descartes (1596-1650 AD), Isaac Newton (1643-1727), Immanuel Kant (1724-1804). The philosophers of the modern period are the actors who have been most instrumental in the development of contemporary science; their contribution to this day can still be felt today (Machamer, 2008). The science gained through philosophy in the Ancient Greek civilization progressed over time. This progress was marked by the struggle of thought among philosophers. The first philosopher to appear in Ancient Greece (pre-Socrates) was Thales, who lived in the year (624-545 BC). According to Thales, the substance that makes up everything in this universe is water. Disagreeing with those expressed by Thales, Anaximander (620-546 BC) refuted Thales' opinion and stated that the substance of origin was not water.

The discourse on science has allowed human insights to continue to develop with the birth of new philosophers (Rudolf Carnap, 2012). According to the old philosophical tradition, the Greek term philosophy was used by Pythagoras to refer to motion, the search for wisdom and truth that man commonly practices. In its complete and perfect form, wisdom exists only in the divine, while the finite man is already content with asserting himself as a lover and not the owner of complete knowledge and truth. Through his mind, man can only draw closer to the entire truth. Man will never achieve it entirely and ideally, even once and for all (Zaprulkhan, 2016).

Philosophy is also the study of the whole phenomenon of human life and thinking critically spelled out in fundamental concepts. Philosophy is not explored by conducting

experiments and experiments but by expressing the problem equally, finding a solution to it, and providing the correct arguments and reasons for a particular solution. The truth produced by philosophical thought is the answer in the form of an idea or idea. Meanwhile, the purpose of philosophy is to obtain primary and comprehensive facts in a conceptual system. Philosophy also produces facts that are abstract and speculative but are unable to know how to hold them.

Before discussing science, you must first explore the meaning of science. Philosophy and the social sciences are usually seen as two separate disciplines. If so, what is the need to study the social sciences and philosophy? For the question to be answered, the first step is to do a historical mapping when modern science was in the process of its birth in the 16th and 17th centuries, and it was tough to establish a boundary between philosophy and science.

In more recent times, the separation between these two disciplines has become more commonplace. After the dividing line is drawn, what is the relationship between the two? There are two answers to the model of relations between these two disciplines. A (the first model) says that philosophy can come to a certain level of knowledge by using rational arguments. B (the second model) on the relationship between philosophy and the social sciences sees philosophy only as an underlabourer for the social sciences, and this view is convinced that pure speculation about the nature of the world cannot give us knowledge and is reliable, knowledge can only be obtained through practical experience, observation, and systematic experimentation.

Philosophical work tools to help us more systematically in this reflective investigation, we can take advantage of the help of the disciplines of philosophy; there are four subdisciplines of philosophy that we can almost always use, namely Theory of Knowledge, the technical term for the theory of knowledge is epistemology. There were two main conflicting views in the 17th century debate on philosophy and science, namely rationalism and empiricism. Rationalism which sees philosophy as the temperature of science, has a rationalist view of the nature of knowledge Empiricism, the goods that our senses can capture, is the only source of knowledge about the world; they argue that the human mind was originally a blank paper.

Ontology is a technical term in philosophy that is unfortunately used by various philosophical traditions differently. In this study, ontology is understood as an answer to "what kind of goods exist in this world." Logic is an attempt to systematically establish the difference between good and bad arguments; ethics and moral philosophy ethical associations appear to abound in social science research. Sociologists are often involved in disclosing information about the beliefs and practices of the groups of people they are studying. Although the philosophy of empiricism pays attention to the nature and scope of knowledge in general, it is briefly referred to as the view of empiricism.

The era of the Industrial Revolution 4.0 as it is today has emphasized that the development of science cannot necessarily replace the existence of philosophy. Because the development of science itself starts from philosophical thoughts. Thousands of years ago, humans had existential questions; science was present through scientific experiments and observations to answer them.

Looking at the countries that are now leading the development of science and technology, such as France, Germany, and the United Kingdom, are countries that have succeeded in combining philosophical sciences and basic sciences such as physics, chemistry, biology, and mathematics. They became developed countries in science and technology because what they created and thought about was not just a matter of applying science alone. But also from the basis and origin of everything happening.

This is in contrast to the concept of science developed in countries that are great in manufacturing, such as China and Japan. Meanwhile, our country still focuses on valuable things; for example, machines are now different from machines in ancient times. As it used to use a steam engine, the longer it gets worn out, it will also break down. If it's machines now, we have machine learning technology, machines that learn. The longer it takes, the more innovative he is, instead of being worn out.

Therefore, we can see how the existence of philosophical science that studies knowledge and investigation with reason about the nature of everything that exists, its causes, origins, and laws become very important because all human abilities can be, at a particular time, wholly carried out by machines. The automation process no longer only occurs in the industrial world but can penetrate everyday life.

If you don't read and understand it wrong, experts predict that later in 2045, artificial intelligence will be able to surpass human intelligence itself. Whether humans will maintain their abilities is the ability to be philosophical people in many ways that may be difficult for these machines to have. Such as the ability to love, seek the truth from pure science and spirituality, and others.

Humans will still be superior to any technology if they stick to the abilities mentioned above, such as the ability to love, seek the truth from pure science, and spirituality. When translated to man in the present and the future, it must be at least have three basic abilities; that is, love, mind, and creation. With these three abilities, it can be classified into several more types.

IV. CONCLUSION

Indeed, what is man's mind, at first, is like a blank paper. All valid knowledge claims must be tested, i.e., by observation or experimentation. In making these observations, he ruled out knowledge claims about entities that could not be observed. Thus, scientific laws and rules are statements or statements regarding forms of experience that are generic and constantly repetitive.

The attempt to explain reality as scientifically meaningful appears that reality is an example according to a scientific rule. Suppose it should reveal that reality is a dilemma that shows that the reality is an example according to a general rule, then by utilizing it. In that case, we will know the power to predict a similar reality that will repeat itself in the future; the reasoning of predictions and their explanations is an equal part of the so-called "symmetry of illumination and prediction." Scientific objectivity rests in a firm selection between a factual statement and a subjective value decision.

The presence of the current Era of the Industrial Revolution 4.0 is a necessity. Because the turnaround of the times and civilizations that will continue to develop and advance fills time and space, human beings who become end-users as well as producers of the birth of knowledge, the latest technologies, and the presence of innovations on various kinds and their respective functions, can base them according to their use and use to be applied in values following social philosophy so that every use of these things can be applied and optimized for the welfare of all humankind.

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References

- Agriyanto, R., & Rohman, A. (2017). Rekonstruksi Filsafat Ilmu Dalam Perspektif Perekonomian Yang Berkeadilan (Kajian terhadap Ontologi, Epistemologi dan Aksiologi Ilmu Ekonomi yang Islami). *At-Taqaddum*, 7(1), 35. https://doi.org/10.21580/at.v7i1.1530
- French, S., & McKenzie, K. (2016). Rethinking outside the toolbox: Reflecting again on the relationship between philosophy of science and metaphysics. *Poznan Studies in the Philosophy of the Sciences and the Humanities*, 104. https://doi.org/10.1163/9789004310827_003
- Hermann, M., Pentek, T., & Otto, B. (2016). Design principles for industrie 4.0 scenarios. Proceedings of the Annual Hawaii International Conference on System Sciences, 2016-March. https://doi.org/10.1109/HICSS.2016.488
- Irianto. (2017). Industry 4.0; The challenges of tomorrow. In *Manufacturing Systems Research* (Issue 4 (63)).
- Jan Hendrik Rapar. (1996). Pengantar filsafat. kanisius.

- Kagermann, H., Lukas, W.-D., & Wahlster, W. (2011). Industrie 4.0: Mit dem Internet der Dinge auf dem Weg zur 4. industriellen Revolution. *VDI Nachrichten*, 13.
- Machamer, P. (2008). A Brief Historical Introduction to the Philosophy of Science. In *The* Blackwell Guide to the Philosophy of Science. https://doi.org/10.1002/9780470756614.ch1
- Meuwissen, D. H. M. (2007). Meuwissen tentang pengembangan hukum, ilmu hukum, teori hukum, dan filsafat hukum : "Vijf Stellingen over rechtsfilosofie." Refika Aditama.
- Priyanto, A., & Muslim, S. (2021). Analisis Kajian Filsafat Ilmu Sosial di Era 4.0. Jurnal Pendidikan Tambusai, 5.
- Prof. Dr. Juhaya S. Praja. (2020). Aliran-aliran Filsafat & Etika. Prenada Media.
- Rudolf Carnap. (2012). An Introduction to the Philosophy of Science. Dover Publications.
- Suaedi. (2016). Pengantar Filsafat Ilmu. PT Penerbit IPB Press.
- Sugiyono. (2016). Metode Penelitian Kuantitatif dan Kualitatif dan R&D (23rd ed.). Alfabeta.
- Sung, T. K. (2018). Industry 4.0: A Korea perspective. Technological Forecasting and Social Change, 132. https://doi.org/10.1016/j.techfore.2017.11.005
- Tasnur, I., & Sudrajat, A. (2020). Teori Kritis: Perkembangan Dan Relevansinya Terhadap Problematika Di Era Disrupsi. *JURNAL YAQZHAN: Analisis Filsafat, Agama Dan Kemanusiaan*, 6(1), 33. https://doi.org/10.24235/jy.v6i1.5894
- Varpio, L., & Macleod, A. (2020). Philosophy of Science Series: Harnessing the Multidisciplinary Edge Effect by Exploring Paradigms, Ontologies, Epistemologies, Axiologies, and Methodologies. In Academic Medicine. https://doi.org/10.1097/ACM.00000000003142
- Zaprulkhan. (2016). *Filsafat Umum Sebuah Pendekatan Tematik* (ke-3). PT Raja Grafindo Persada.