

SOCIETY 5.0

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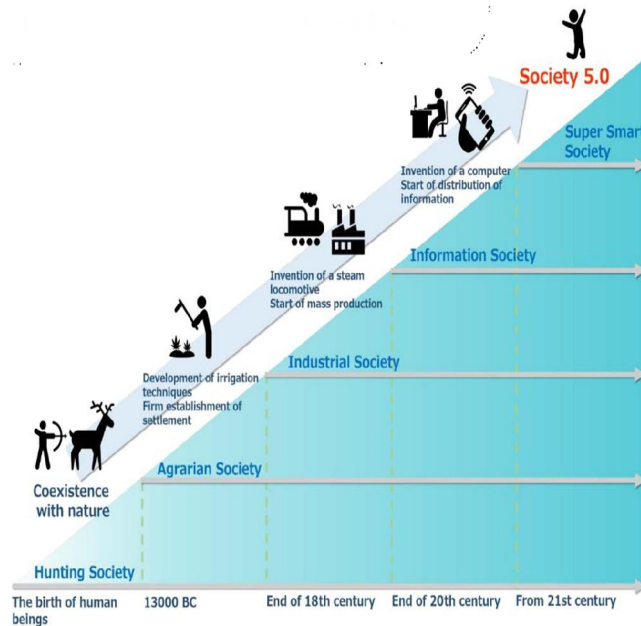
Abstract: *If we look at the recent Internet of Things technology trend, we can make everything talk to each other and in the physical world not so much. This is where our lives and technological development kind of stopped. Hence Society 5.0 was proposed as a future society that Japan should aspire, to increase the quality of people through the advancement of technology. Society 5.0 is just the beginning of entering into a new era.*

Keywords: Internet, Society, Development

I. INTRODUCTION

1.1 What is Society 5.0?

One definition: It is a concept started in Japan - "A human-centered society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space." In other words – "It increases the quality of people through the advancement of technology" Society 5.0 is a cyber-physical system (CPS), according to Skobelev & Borovik (2017) and UNESCO (2019). It is a government-wide national vision of Japan and a key goal of the economic policy reform termed "Abenomics", which is named after Japan's prime minister Shinzo Abe with the goal to revitalise productivity and growth, as already stated in the introduction of this paper. Society 5.0 is a new prospective concept based on very recent publications, thus there is still a lack of knowledge and global awareness and a degree of rightful uncertainty about it.



1.2 Proposal of Society 5.0

In the information society (Society 4.0), cross-sectional sharing of knowledge and information was not enough, and cooperation was difficult. The Japanese concept of Society 5.0 serves as a self-proclaimed vision to solve several of the followed mentioned global social issues and economic challenges, such as an ageing population in Japan.

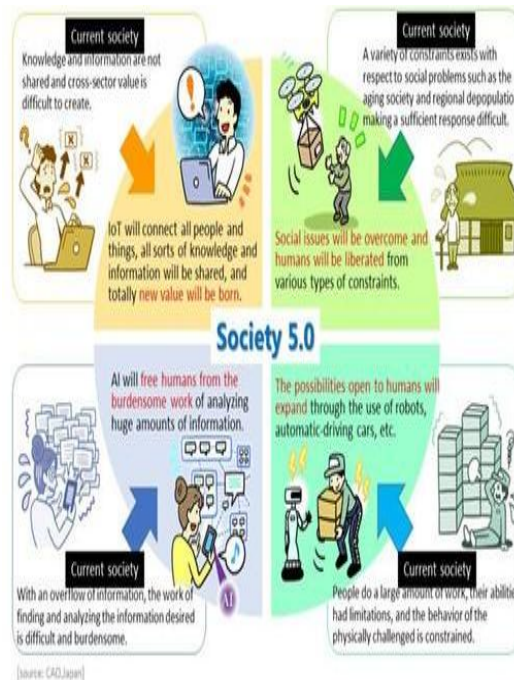
Society 5.0 was first introduced in the 5th Science and Technology Basic Plan. These plans focus on enhancing Science Technology and Innovation measures and policy. Japan as a whole seems to be increasingly committed to the vision of Society 5.0. There seems to be an eager wish from the Japanese government and business community to seize this golden opportunity in order to finally reverse the remaining negative trends and free humans from the so called ‘Five Walls of Restrictions’:

1. The wall of ministries and agencies: Breaking down this wall means to formulate a national strategy and to promote a thinktank environment of public and private sectors through multi-stakeholder collaboration.
2. The wall of the legal system: Which develops laws and system reforms towards the implementation of advanced technologies.
3. The wall of technologies: Breaking down the third wall includes to promote advanced technologies and to support R&D in new technologies as well as in cybersecurity.
4. The wall of human resources: It provides education to foster creativity, to improve digital literacy and to encourage dynamic engagement and value creation of all citizens.
5. The wall of social acceptance: The fifth wall integrates advanced technologies in society and builds social consensus among all stakeholders including citizens.

Social reform in Society 5.0 will achieve a forward-looking society that breaks down the existing stagnation, a society whose members have mutual respect for each other and a society in which every person can lead an active and enjoyable life Now the question arises – “Whether such a change in Society will work?” and whether the above-mentioned walls be broken down? To answer such questions; this brings to the next topic.

II. WORKING

Society 5.0 achieves a high degree of convergence between cyberspace (virtual space) and physical space (real space). In the past information Society (4.0), people would access a cloud service (databases) in cyberspace via internet and search for, retrieve and analyze information of data.



In the face of such major changes in the world, new technologies such as IoT, Robotics, AI, and bog data, all of which can affect the course of a society are continuing to progress. Japan seeks to make Society 5.0 a reality as a new society that incorporates these new technologies in all problems in parallel. In this society new values created through

Innovations will eliminate regional, age, gender gaps and enable the provisions of products and services, in this way it is possible to achieve a society that can both promote economic development and find solutions to the social problems. Achieving such a society, however, will not be without its difficulties and Japan intends to face them head-on with the aim of being first in the world as a country facing challenging issues to present a model future society.

It will bring a Human-Centered Society

The Fourth Industrial Society will enable us to create a new society. Artificial Intelligence will transform the big data collected through internet of things into “new wisdom”. Society 5.0 a technology based Human Centered Society will raise our standard of living and solve various challenges we face; it will for example free us from the stress of driving allowing us to safely visit anyone, anytime. We will access to the latest medical advancements at a low cost no matter where we are AI and Robots will enhance human ability and expand our infinite possibilities, helping us enjoy more fulfilling lives. Achieving such a society with these attributes would enable not just Japan but the whole world as well to realize economic development while solving key social problems. Japan aspires to become the first country in the world to achieve a human centered society in which anyone can enjoy a high quality of life full of vigor. The research investigates the degree of happiness and enjoyment in Society 5.0 has potential to increase the quality of people and there’s been a suggestion on how to increase social acceptance; breaking down the wall of social acceptance and building social consensus among all stakeholders and citizens is vital to realize Society 5.0. Thus Society 5.0 cannot be realized without the effort and willingness of the entire society. Probably breaking down this wall is the hardest. One of the already identified key prerequisites to build social acceptance is creating a nationwide vision. The importance of the media is clarified in relation to social acceptance.

The literature emphasizes why the media and in particular the digital media plays such a huge role nowadays. It has become the strongest influence in societal transformation while having the noble mission to form a good, multicultural society. The info media process is regarded as the dominant driver of societal change in the Society 4.0, the information age. It often depicts a negative or pessimistic view, which can be linked to the role of being a watchdog. However, it can tend to be sensational and overly negative which is what it often makes profit.

III. SOCIETY 5.0 AND ITS ADVANTAGES

In Society 5.0 people will be liberated from various constraints that previous incarnations up until Society 4.0 could not overcome, and will obtain the freedom to pursue diverse lifestyles and values. They will be liberated from focus and efficiency. Instead, the emphasis will be placed on satisfying individual needs, solving problems and creating value. They will be able to live, learn and work, free from suppressive influences on individuality, such as discrimination by gender, race, nationality, etc and alienation because of their values and ways of thinking.

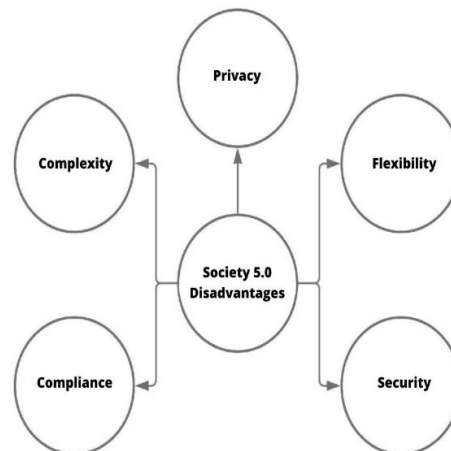


People will be liberated from the disparity caused by the concentration of wealth and information, and anyone will be able to get opportunities to play a part anytime, anywhere. People will be liberated from anxiety about terrorism, disasters and cyber attacks, and live with security with strengthened safety nets for unemployment and poverty. People will be liberated from resources and environmental constraints, and able to live sustainable lives in any region. In short, we will make Society 5.0 a society in which anyone can create value anytime, anywhere, with security and in harmony with nature. Besides the possibility of increased happiness in Society 5.0, the interview data reveals several opportunities. One would be understanding each other. It refers to the idea that language would not be a barrier anymore. In a farsighted scenario, the idea could link to the notion of a synergistic interconnection between human abilities and AI capabilities, where humans explore and enhance their own abilities, such as language, combined with abilities of AI. It is called the “Internet of Abilities” (IoA). The main opportunity of Society 5.0 is that it could guide, coordinate and accelerate human’s transition into the future. Making it more deliberate with less uncertain outcomes, instance in terms of privacy. There’s fewer unintended consequences as a result of having a meta plan. This opportunity clearly relates to the intent of the Japanese business federation. The evolutionary path of digital transformation is inevitable, but the vision of Society 5.0 gives the opportunity to indicate direction and to co-create the future which cannot be accomplished by one nation or one company. It further emphasizes that it’s inevitable that technology will lead us to some kind of new generation of society. “You can’t stop AI. If Germany, France or Japan is not doing it, then the US will do it or South Korea. It’s not country specific at all.”. The important question is how do you control and manage that change in a way that it helps people rather than to put them at risk? It makes sense to believe that a well- established framework, concept, vision, “meta-plan” such as Society 5.0 is the best way to steer the inevitable path of digital evolution into the right direction. This concept could make us more appreciative of multiculturalism and different perspectives with a better sense of being part of a global community.

To sum up, Society 5.0 could help humans to understand each other better, for instance through IoA. It manages and co- creates the inevitable future by coordinating a more deliberate transition into the future with less uncertain outcomes. There is an opportunity to better appreciate global multiculturalism through unity in diversity, while Society 5.0 fosters economic growth and social inclusion by potentially overcoming the digital divide.

IV. SOCIETY 5.0 AND ITS CHALLENGES

Likewise, to opportunities, the study also determines the challenges and risks of Society 5.0. In fact, there is a risk that Society 5.0 is seen as a mere problem- solver. Yet, it is imperative to think about the consequences of digitisation in certain fields. The same applies to Industry 4.0. Consequently, all participants have expressed various concerns about challenges and risks on the potential road to Society 5.0. A commonly named issue is cybersecurity. The literature found that in the context of Society 5.0 the people are quite anxious about privacy and cyber- attacks as well.



Besides the already discussed personal data concerns. “There’s a risk that there will be a certain elite who controls most of the data flows and data storage systems. She speaks about a shift of power to organizations that were not

democratically elected. For example, a certain group of technology companies or governments with access to vast amounts of data. decentralized data strategies and a diversified data landscape with different data storage systems from diverse companies will be significant. Not well-established regulations of power over data and of data privacy might lead to bad consequences and ethical issues. Society 5.0 might solve the digital divide. But some countries might struggle more with the digital divide than Japan. The digital divide is a true challenge for Society 5.0. Depending on how you implement Society 5.0, AI and IoT the digital divide might be exacerbated by Society 5.0. As previously discussed, Japan seems less concerned about the digital divide and has a strong digital infrastructure. However, the digital divide does not only relate to having fast internet access. It also relates to acquiring digital skills and digital media literacy, particularly in a world surrounded by misinformation. Digital literacy and digital access go hand in hand. Yet, a strong digital infrastructure seems to be the basis. We can experience already during the corona crisis isolation time, that people are feeling a lot of digital fatigue, because digital engagement is just constant. People start putting their digital devices away or leave them at home. There might be long-term ramifications regarding excessive exposure of digital devices and digital fatigue which need to be researched and discussed. Society 5.0 must find a good balance between digital illiteracy and digital fatigue. In addition to digital fatigue there might be further negative implications. There has been an argument that the emotional interaction between robots and humans is very important and a big challenge.

“Too strong robot support for humans lacks the opportunity for humans’ capabilities to grow. We need to grow both sides, human and robot. We need to carefully discuss this.”

It has become evident that technology has exceeded our humanity and has become a total phenomenon for civilization. And SOCIETY 5.0 is just the beginning of A NEW ERA!!

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