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Preface

In modern society, we have entrusted Leviathans (states) with power, establishing the wedge of constitutions to prevent them from running amok while building a system to safeguard our lives, freedom, and safety. However, as we enter an era where people's lives cannot function without digital technology and the digital realm, the influence of new monsters, Behemoths (Digital platforms. Here after "DPFs"), has become significant and cannot be ignored. This book, along with the series to which it belongs, ambitiously explores how societies in the present and future will or should transform in the struggle between the two monsters—the Leviathans and the Behemoth.

Clearly, regarding themes such as freedom, power, and democracy, which are addressed in other volumes of this series, the two monsters are primarily viewed as adversaries, with a showdown between them resembling an extensive monster war. However, this book adopts a slightly different approach, focusing on several social foundations. The proposals below are divided into sections on health, education, and labor. For instance, a patient suffering from a rare disease may access information regarding treatments approved overseas using a DPF, and social media is indispensable for disseminating the latest information on vaccines and treatments during pandemics. Some workers find daily employment through Uber, and in the field of education, tablets are useful for supporting students who cannot physically attend school. Therefore, rather than simply considering the arrival of the Behemoths as a source of major conflict, we can imagine them as a new ally for patients, children, and workers, aiding their health, learning, and working lives.

Evidently, in the realms of health (medical care), education, and labor, actors other than states and DPFs exist. For example, in healthcare, there are medical professionals who treat patients and pharmaceutical manufacturers; in education, teachers; and in labor, companies and unions. All have supported the social foundations in their respective fields. Within this context, it is difficult to uniformly model who exactly is the monster and who is the god. Thus, this book does not present a simple framework where the two old and new monsters dominate and clash; instead, we aim to consider from multiple perspectives and in concrete scenarios, what has been expected of the Leviathans in each domain, what type of impact the new monsters, the Behemoths, may have, and what expectations we may have for them, while also considering how to control their influence.

Readers are welcome to begin reading from any chapter—whether health (medical care), education, or labor—however, the degree of expectation and caution regarding the Behemoths varies. This variation is largely owing to the different roles that central actors, such as professionals (doctors, teachers) and intermediary organizations or institutions (medical institutions, schools, companies), have played in the past, present, and future in each domain.

For instance, in healthcare, the doctor-patient relationship, which is based on trust, differs significantly from general consumer relations, and, furthermore, considering the limits of medical science and human power in the face of life, death, and the mysteries of life, the question arises as to how information can be circulated and patients' medical decision-making is possible using DPFs. Thus, the work of the medical profession to protect patients' interests and the nature of its professional ethics must be central, for example, when

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considering regulations for advertisements on DPFs. A simple consumer law approach is far from sufficient.

In the field of education, the constitution demands that schools and teachers function for the right of children to have an education. Before the arrival of DPFs, the physical space of schools was a platform. Schools occupy a large part of students' lives, not only for learning, but also for health checkups, school lunches, extracurricular activities, and evacuation drills. Although this has not fundamentally changed with the arrival of DPFs, it is expected that DPFs could assume roles such as supporting students who cannot attend school owing to truancy or those struggling with peer pressure. The Behemoths should cooperate with and complement the old platform, not replace it. Thus, the question is how to tame the Behemoths while modeling it on the responsibilities of schools and teachers. This is far removed from the image of a monster war. (This book also considers and proposes ways to prevent privacy violations for children, which

is essential for the effective use of DPFs.)

Regarding labor, the relationship between employers and employees is undergoing daily changes worldwide. In ordinary businesses, employees are increasingly being transformed into freelancers, and on the surface, DPF workers appear to enjoy a free employment style, however, in reality, they are positioned as self-employed. If both ordinary businesses and DPFs abandon the traditional role of employers in the Japanese employment model, resulting in workers falling out of the social security system (health insurance, etc.), a significant portion of the responsibilities historically placed on companies to protect workers could dissolve (or at least shrink). It is time to seriously reconsider who bridges this gap and how. Ultimately, the suggestion is that, in today's world in which DPF work has appeared, we should not simply reduce the role of companies in worker protection but rather carefully consider the role companies must play in the DPF era.

By reviewing each proposal and reading the related chapters, I expect you will notice that, while the various perspectives and views of different contributors appear to intersect, there is an underlying "view of things" that runs through the entire discussion.

We expect this book inspires you to reflect on how we can maintain and enhance social foundations in the DPF era and how various actors in our society, not just the two monsters, should perform their roles.

(Editor-in-Chief: Tetsu Isobe)

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1 Proposals for Improving Digital Medical Advertising Practices

Case

Targeted advertisements for cosmetic surgery, Androgenetic Alopecia (AGA) treatments, and health supplements are being displayed on DPFs. These advertisements profile users' health characteristics and anxieties based on their behavioral history on DPFs, displaying products that psychologically appeal to them. Some advertisements employ dark patterns, tapping into behavioral psychology, probably leading some health-conscious users to feel anxious after viewing an advertisement and clicking on it to purchase the product in an attempt to alleviate their health concerns. These advertisements may lead to accessing unverified elective medical treatments, potentially resulting in damage to health or public health risks.

Issue

Regarding medical advertising regulations, the Consumer Affairs Agency issued fewer than 10 orders for advertisement corrections in 2015, however, by 2020, this number exceeded 20. The agency is particularly cautious about advertisements that prey on users' psychological vulnerabilities, such as those claiming to cure cancer or prevent COVID-19. Recently, DPFs themselves have adopted measures to address targeted health-related advertisements. Google has independently established a medical advertising policy, using AI to remove advertisements that violate Japan's Act on Securing Quality, Efficacy and Safety of Products including Pharmaceuticals and Medical Devices (PMD Act). Several advertisements have been removed from YouTube.

Internet advertising offers the advantage of providing users with health-related information and expanding their choices. However, advertisement revenue is a primary source of income for DPFs. Advertisement clicks directly translate into revenue for them. Targeted advertising—which taps into consumer behavior psychology, using AI to analyze users' online behavior and pinpoint advertisements that are likely to interest them—is an efficient way to obtain clicks. Targeted health-related advertisements predict users' health concerns based on their behavior and show advertisements accordingly.

Traditionally, strict legal regulations have been placed on medical advertising to prevent missed opportunities for necessary care, that is, to prevent people from mistakenly believing that they do not need to seek proper medical treatment if they use the advertised product. The purpose of regulating advertisements has been to establish an environment where, regardless of their preferences, patients are provided with accurate information, ensuring they can make appropriate medical choices. However, the new method of targeted advertising appeals more directly to users' psychology, the more a user relies on a DPF, the more they are inundated with similar advertisements, potentially making such ads more confusing than those on television or in magazines. Consequently, targeted medical advertisements may obstruct appropriate medical choices and even induce negative health outcomes.

Thus, the issue of medical advertisements displayed on DPFs extends beyond privacy concerns (whether users consent to the use of their personal or cookie data for advertising purposes). It raises broader questions, and it is doubtful that current medical advertising regulations can sufficiently address these issues. It may be necessary to introduce new regulations that focus on the characteristics of DPFs, including their handling of

targeted advertisements.

Proposal 1: Health-related advertisements on DPFs should be properly regulated from a public health perspective.

Proposal 1-1: The government should review the advertising regulation system and improve its effectiveness, considering DPFs' business model.

It is essential to recognize that inappropriate medical advertising can directly harm the public's health. Therefore, in addition to enhancing internet monitoring, it is necessary to strengthen the effectiveness of regulations under the Medical Care Act and related laws. This includes continuously reviewing the Medical Advertising Guidelines, and Case Study Collections to respond promptly and effectively to new types of advertisements appearing on social media.

Furthermore, the framework of the Medical Advertising Council, established as a forum for discussions with relevant authorities, local governments, medical organizations, and various industry groups, should be reinforced to enhance transparency and ensure that DPF advertisements are appropriately displayed, with the aim of preventing and reducing harm to health and consumer problems.

Proposal 1-2: Those who engage in medical advertising should ensure that their advertising is appropriate after having fully understood the advantages and disadvantages of DPF advertising.

Those who engage in medical advertising (such as medical institutions) must take the initiative to ensure that the content of the medical care they provide and their advertising are appropriate. They must appropriately comply with relevant laws and the Medical Advertising Guidelines, as well as consider that targeted advertising may hinder patients and the public from making appropriate medical choices and lead to negative health outcomes.

Proposal 1-3: DPFs should establish and properly implement advertising policies to prevent negative impacts on health.

Recently, some DPFs have implemented measures, such as using AI to remove advertisements that violate the PMD Act, as part of their efforts to address targeted health-related advertisements. However, DPFs should recognize that medical advertisements may hinder patients' and the public's ability to make appropriate medical choices and should actively establish and implement advertising policies to prevent negative health impacts, even in areas where legislation has not yet progressed.

(For details, see Chapter 2, Sections III and IV.)

2 Proposal for Preventing Infodemics

Case

During his response to the COVID-19, then-President Donald Trump retweeted incorrect information on social media, such as that receiving a vaccine will make your body magnetic and that injecting disinfectant can cure the disease. Despite many experts, including doctors from the government's COVID-19 response team, refuting these claims, this misinformation spread across social media worldwide. According to WHO, there have been cases where users believed misinformation spread on social media and then died, for example, after self-administering disinfectant.

Issue

WHO has warned about the dangers of "infodemic," where extensive incorrect health information is disseminated online, posing a serious risk to our lives and health. The risks brought about by an infodemic include, firstly, the risk of viewers taking actions based on misinformation that could harm their health; and secondly, the risk of viewers becoming uncertain about which information to trust.

The cause of the infodemic in this case stems not only from the fact that the person spreading the misinformation was the president, but also because some of his tweets have been cited tweets from a physician. The original tweet by the physician lent credibility to Trump's views, making the above first risk a reality. Moreover, even when physician fought back against the misinformation on social media, ordinary people were left wondering which posts to believe, exacerbating the second risk. At such times, if posts garnering many likes are repeatedly displayed by DPF algorithms, they may become more convincing. The infodemic worsens when misinformation from doctors and DPF algorithms reinforce each other.

Proposal 2: A framework for ensuring ethical standards to prevent infodemics should be established.

Proposal 2-1: Health professionals should unite to consider and declare the professional ethics expected of physicians disseminating public health information.

Health professionals should understand that their information dissemination could complicate infodemics. They should review the ethics of disseminating information and incorporate it into the professional ethics of medicine through their professional organizations and academic societies.

Proposal 2-2: DPFs should engage in ongoing self-regulation, recognizing their responsibility for social media and other platforms having caused infodemic outbreaks and harmed people's health.

DPFs should enter into public agreements with WHO, the government, and medical organizations and publicly release self-regulation policies aimed at preventing the dissemination of health information without scientific basis. These policies should be permanently implemented.

(For details, see Chapter 2, Section V.)

3 Proposals for Addressing the ELSI of Using Educational Data

Case

In March 2023, the Ministry of Education, Culture, Sports, Science and Technology published the "Points of Consideration for the Utilization of Educational Data (First Edition)." It describes itself as a document that summarizes the points that boards of education and schools should consider when using educational data to ensure safety and security. Most of it is devoted to explaining the Personal Information Protection Act.

Issue

The use of educational data through EdTech, such as digital education platforms, raises various ELSI (ethical, legal, and social issues). Although the government has carefully examined the compatibility of educational data use through EdTech with the Personal Information Protection Act, insufficient consideration has been given to its compatibility with the constitution (the highest-ranking "L"), ethical issues ("E"), and social issues ("S"). The aforementioned "Points of Consideration" include minimal explanation regarding the constitutional right to privacy (although it was somewhat expanded in the second edition published in March 2024). Although it introduces the idea of "ELSI" in connection with privacy protection, it does not concretely address ELSI in the context of educational data usage. Furthermore, points related to other rights have hardly been considered, such as the right to education, freedom of education, freedom of thought, or equality.

Proposal 3: The usage of educational data should proceed considering the ELSI and corresponding measures.

Proposal 3-1: The government should review ELSI related to educational data usage while engaging in dialogues with a diverse range of experts and stakeholders.

To properly identify ELSI related to educational data usage, it is essential for the government to engage in dialogue with experts from various academic fields, EdTech companies, teachers, students, parents, and other stakeholders and fully respect their opinions.

Proposal 3-2: The government should establish ELSI guidelines for the usage of educational data.

The government should develop ELSI guidelines that boards of education, schools, teachers, EdTech companies, and other stakeholders must adhere to when using educational data.

Proposal 3-3: EdTech companies should create pledges related to ELSI for usage of educational data.

EdTech companies that develop and provide EdTech should create self-regulatory pledges to address legal, ethical, and social issues that legislation has not yet addressed.

(For details, see Chapter 3, Section I.)

4 Proposal for Profiling Regulations and Protecting Children

Case

Children are being actively profiled in the context of EdTech educational data usage. For instance, in Minoh City, Osaka Prefecture, various information related to child poverty, previously managed in a decentralized manner, has been consolidated into the Child Development Monitoring Office database within the Board of Education. The system's algorithms evaluate, for example, financial hardship, academic ability, and non-cognitive abilities, and combine these three factors to provide a comprehensive assessment of the child's condition. Additionally, in Higashiomi City, Shiga Prefecture, a pilot study is being conducted using the cameras on GIGA School tablets as a sensor to estimate students' emotions based on data such as pulse rate, pupil dilation, and acceleration.

Issue

Profiling, which involves predicting personal characteristics based on AI-based and other algorithms, can lead to the same outcome as acquiring sensitive information if the predictions are accurate. If the predictions are inaccurate, it creates the problem of forming an incorrect profile of the individual. Profiling that uses biometric information, which cannot be changed by an individual's will or effort, is particularly risky. Moreover, profiling children may narrow their learning options and limit their potential for growth and development.

However, the Personal Information Protection Act does not explicitly regulate profiling, nor does it provide special protections for children. Under such legal frameworks, profiling that uses biometric information, such as emotion analysis, is being actively conducted in schools.

Proposal 4: The government should regulate profiling explicitly through legislation and establish special protections for children concerning personal information.

Proposal 4-1: The government should regulate profiling through legislation.

The EU's GDPR explicitly regulates profiling, and the EU's AI Act prohibits the use of AI for emotional analysis in workplaces and educational institutions, categorizing it as an unacceptable risk. In Japan, profiling should be regulated through laws, such as the Personal Information Protection Act, while referring to these international legal frameworks.

Proposal 4-2: The government should legislate special protections for children concerning personal information.

The EU's GDPR stipulates that children may not fully recognize the risks associated with the processing of their personal data and should, therefore, enjoy special protections. Japan should also legislate special protections for children in relation to personal information.

(For details, see Chapter 3, Sections II and III.)

5 Proposal for Protecting Platform Workers

Case

A certain company decided to transition half of its employees to independent contractors and enter into service contract agreements with them. The aim underlying this decision was to increase incentives for workers to continuously improve their job skills.

Person A, who is an employee of this company, is considering becoming an independent contractor after hearing that it would allow them to have more discretion over their work and potentially increase their compensation depending on their performance. However, Person A also understands that they would have to bear the costs of social insurance and pensions, that their working hours could increase, and that their income and future plans would become less stable owing to the possibility that their service contract could end depending on the work. Person A has young children and a mortgage, making it difficult for them to decide whether to remain an employee or become an independent contractor.

Issue

In recent years, the platform economy has expanded rapidly. There are two labor models within the platform economy: ① the Uber model, characterized by uniform labor (a specific task), and ② the crowd-sourcing model (CS model), characterized by non-specific tasks (including specialized work). Additionally, some large companies have begun exploring a shift from traditional employment contracts to service outsourcing contracts. The differences between traditional employment contracts and the emerging employment-independent work models can be summarized as follows:

	Traditional Employment	Employment-independent Work
Form of Work	Wage workers	Independent contractors
Employer-employee Relationship	Dependency (personal and economic)	Equal contract parties (there is no employee-employer relationship)
Legal Protections	Protection under labor laws	Labor laws don't protect this type of work
Legal Sphere	Labor law (a special field within private law that protects workers based on actual power imbalances)	Civil Code (governed by the Civil Code, which is a general law, because it is ostensibly a contract between equal legal entities)

This table's distinction between "traditional employment" and "employment-independent work" roughly corresponds to the distinction between "company employees (wage workers)" and "Uber Eats delivery workers (independent contractors)" mentioned in Proposal 6.

However, this type of work arrangement is often pursued with the clear goal of reducing labor costs for employers, and it is difficult to say that it leads to genuine protection for workers. How, then, should the legal system be reformed to address this situation?

Proposal 5: The government should fundamentally restructure the labor legal regime.

Proposal 5-1

With the expansion of employment-independent work, areas uncovered by traditional labor law, which primarily focuses on employees, are expected to expand. Therefore, the state should consider building a new legal regime that encompasses various working styles.

Proposal 5-2

In society today, the weakening of social ties traditionally held by communities has led to increased isolation of individuals. The rise of employment-independent work brought about by platforms also risks further isolating workers by diminishing the community functions previously fulfilled by companies.

Therefore, when restructuring the legal regime, the state should reference the concept of social inclusion and aim to maintain and create diverse social ties that extend beyond labor alone.

(For details, see Chapter 4, Section I.)

6 Proposal for Social Security Protection of Platform Workers

Case

Mr. X, working as a delivery person for Uber Eats, was involved in a hit-and-run accident while making a delivery. As Mr. X was not covered by workers' compensation insurance, he could not receive compensation for his medical expenses or lost wages.

According to Uber, delivery personnel are independent contractors rather than employees under an employment contract, meaning there is no system in place to compensate for their injuries. Uber encourages delivery personnel to obtain their own insurance, however, Uber does not know how many of its delivery personnel actually have coverage.

The Chamber of Commerce, of which Mr. X is a member, is preparing to establish a workers' compensation insurance union for freelancers engaged in delivery work and is calling for workers to join the union for insurance coverage.

(This case was partially modified from the original article published in *Zenkoku shōkō shinbun*, no. 3370, dated July 22, 2019. Information on the legal system and circumstances reflect the conditions of the time.)

Issue

1 There are significant differences in the application, burden, and benefits of social insurance between employees (such as company workers, civil servants, and teachers) and non-employees (such as self-employed people, including independent contractors) whose way of working style is different (can include working through digital platforms, such as Uber Eats delivery personnel). Social insurance systems for non-employees provide less coverage compared with those for employees (see table below; note that this is related to the discussion in Proposal 5 regarding differences in form of work).

Thus, the validity of the binary classification of employees versus non-employees becomes an issue.

Differences in Social Insurance Coverage, Burdens, and Benefits between Company Employees and Uber Eats Delivery Personnel

	Company Employees (Wage Workers)	Uber Eats Delivery Personnel (Independent Contractors)
Medical Insurance	Covered by employee health insurance - Premiums are split between the employee and employer - Mandatory compensation for leave owing to illness or childbirth	Covered by National Health Insurance - Premiums are fully borne by the individual - No mandatory compensation for leave owing to illness or childbirth
Public Pension	Covered by National Pension + Employees' Pension - Premiums are split between the employee and employer - Flat-rate + income-proportional benefits	Covered by National Pension - Premiums are fully borne by the individual - Flat-rate benefits only
Workers' Compensation Insurance	Applies to companies employing workers, with all premiums paid by the employer	Optional enrollment system (special enrollment system) exists, however, all premiums are borne by the worker
Employment Insurance	Eligible for coverage	Not eligible for coverage
Long-term Care Insurance	The system is the same as for independent contractors, however, premiums are split between the employee and employer	The system is the same as for wage workers, however, premiums are fully borne by the individual

2 Expanding the definition of employees to include self-employed individuals is not necessarily the solution. Doing so could negate the benefits of flexible work styles, which involve less temporal and spatial restriction. Moreover, it may hinder the development of DPF-based work, which can have positive social, economic, and environmental impacts.

Thus, determining the best approach to providing social security (particularly social insurance) for DPF workers (platform workers) becomes an issue.

3 Even if social security (particularly social insurance) protection is extended to platform workers, it is unclear whether digital platforms can be required to bear the same obligations as employers (such as employer-paid insurance premiums).

Thus, the role of DPFs in protecting platform workers is another key issue.

Proposal 6: The government should review social security protection for platform workers by considering how and what to secure for who while recognizing the interconnectedness of these three factors.

Proposal 6-1

As for *who* should be protected, the government should consider who are the subjects of social security rights in relation to *labor* (not *employment*) by examining categories such as ① all individuals, including non-working individuals (e.g., unemployed or retirees); ② all workers, including both employees and self-employed persons; or ③ (a part of) platform workers (a subset of self-employed persons).

Proposal 6-2

As for *what* to secure, the government should consider what risks to protect platform workers from, considering the relationship between the risks covered and their work: ① risks that are separate from occupational activity, or, if risks are related to occupational activity; ② the risk of losing occupational activity itself; or ③ the risk of injury or illness during occupational activity.

Proposal 6-3

The government should consider *how* to provide protection for platform workers, addressing factors such as ① the system (social/public insurance vs. private insurance); ② the funding source (taxes or insurance premiums, calculation methods, and contributors; in France, digital platforms pay workers' compensation premiums for platform workers under certain conditions); and ③ the benefits system (uniform flat-rate benefits or income-proportional benefits).

(For details, see Chapter 4, Section III.)