**Data Privacy Intelligence and AI Ethical Obligation**

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AIDI 1004 - Issues & Challenges in AI

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**Instruction**

AI is one of the trendiest technologies in the world. This superstar technology is supporting companies to deliver advertisements, assisting you to go shopping online, and even helping researchers to select drug candidates. Why did AI grow so quickly in recent years? I think there are five main advantages:

1. Problems will be tackled in a more efficient and accurate way with AI solutions.
2. Tremendous data are being transported in a faster speed and in a shorter time thanks to modern network technologies.
3. With the popularization of new platforms and technologies, tremendous data could be stored, transformed, reloaded, and analyzed in a more affordable way.
4. Major technical breakthrough of AI requires large scales of computing resources which has become more affordable in recent years.
5. AI applications can help businesses make more money. It helps businesses survive in the escalating commercial competitions.

The expanding requirement for information interchange is the cornerstone of creating an AI, among all the other elements outlined above. Without highly efficient information exchange and the powerful integrated tools for tremendous data management, AI is little more than castles in the air.

But in the past, since there is neither a cheap way to store massive business data nor an easy way to analysis them, tremendous data storage had been treated as troublesome deadweight for most of companies in the past. Until google opened its GFS file system, big data became business gold mine. Based on the development of mobile devices, whomever collects personality data with the finest quality through mobile devices would gain the best chance to provide personal service and win the most customers by earning their loyalty. And after decades of efforts of those high-tech AI companies, AI becomes a significant power to connect human needs and the real world. AI formally advanced into people's daily lives.

**Thesis statement**

However, despite the benefits AI might provide, its ethical responsibility has been ignored for a long time. As an algorithm engineer working in the relevant research field, I use to directly confront similar challenges. My responsibility is to identify fraudulent advertisement clicks and prevent our advertising platform from receiving real-time fraudulent data streams. To best improve my fraud detection performance, I require enormous amounts of valuable data: the more valuable data we collect, the higher the accuracy we can promise to our processing results. Apparently, the most valuable data includes potentially the most sensitive information of our customers. And businesses will always try their best to request the most profitable data so long as it is not illegal.

People have benefited much from the big data era in the past two decades and are all thankful for the changes AI has brought into their lives. However, it now seems their optimism was premature. The degree of risk associated with their business expansions was seriously underestimated by the people who benefited from them. The initial euphoria over the exhilarating development of AI has been replaced by a more sober assessment of reality. People started to know about not only the benefits but also the issues and challenges posed by AI.

As reported from China, some high-tech giant companies are disregarding their moral duty, abusing users’ data to build their extra profitability. Didi, a high-tech giant that provided ride-hailing services, was fined over 8 billion Yuan because of its violations in trying to differentiate the price based on how rich the users are. (Ma & Cao, 2022). Meituan, a food delivery giant, fined 534 million Yuan for abusing their big data technologies to make price discrimination. (Wang, 2021). These recent news reports reveal some typical AI issues and challenges. And there would be more. Real technological advancement starts by addressing people’s needs, but people underestimated the dark side of it. (Chen, 2021).

Because new policies could not keep up with the shift AI bring into people's daily life, corporations that controls AI became the last defense between AI and humankind. And if AI will be keeping developed without obeying the moral principles, it will become a personal power only serving its owner, take great trouble to people who use it, and lead to cognitive biases, discriminations, unauthorized surveillances, trust deficit, and social division to human society. (Fhom, 2015). As a good sign, people are now more conscious of the risks and pitfalls of AI than just its success, because more examples reveal that how biased algorithms have created problems and challenges in the corporate sector, the government, and everyday life. Why people suffer such discriminations from AI after the brand got the loyalty from their users? This paper will address this issue and propose solutions in three factor.

**Body paragraph 1**: public scrutiny and people's lack of vigilance

The understanding of the hazards that both individuals and society are facing is the hardest part of addressing the issues and challenges posed by AI. Most people's understanding of AI still relies on media depictions. Modern AI is different from the traditional definition: an all-powerful and human-like robot. It is based on knowledge, which is in the form of the computer data, to make decisions as a specialist in particular knowledge fields. As a result, AI needs a lot of data to thrive. We are highly expecting for the changes AI would bring into people’s lives in one hand and seriously underestimated AI’s strong demands to people’s personal information. This lack of foresight is one of the very reasons why we lose control of our privacy. People are therefore confronted with various problems like discrimination, surveillance, etc. Users of the ride-hailing services might face price discrimination. People who reveal their real-time whereabouts may be under surveillance. When people are browsing the internet, their online surfing interests and hobbies will be tracked by corporations, and their valuable privacy may be sold. As long as a person is online, AI will keep an eye on them. (Xie, 2018).

Despite all these issues and challenges, people should think carefully about whether it is morally and legally acceptable instead of dreading it. Give AI basic access rights with prudence, or think about other alternative moral services, even if they cost more.

**Body paragraph 2**: Technic Obligation and CSR

Other than the customers who use AI, corporate influence is also a crucial component of this problem. By the year 2035, "the technology is projected to add $14 trillion to enterprise coffers." (Livingston, 2020). Whoever owns the smartest AI will own the future. And the smartest AI requires the best-quality data. For this reason, Internet giants are keen to collect as much data from their users as they can, especially personal data.

It is obvious that personal data is sensitive. But when people give AI permission to access their privacy, there is no practical way for individual clients to limit how businesses utilize their personal data. It only depends on how reliable the corporation is. According to Ahmad and Janczewski, “The challenge of big data is not only caused by people's lack of vigilance but also caused by organizational culture and environmental influences.” (2016). The technical reason for big data challenges is that data generated too fast for us to keep up with it. And culturally, the reason is that the risks associated with disclosing our personal information are not treated seriously by service providers. (Salleh, 2016). The business and its employees should assume responsibility for safeguarding their reputation and the faith their clients have in them. As an appropriate example of how well the government knew people's private information, Xie cited the US government's management of the surveillance programme PRISM which was heavily backed by major global high-tech companies. (2018).

Adhering to corporate social responsibility has many benefits. First, it can help a company attract and retain employees. Second, it could save long-term operating costs. Third, it could show a sign of accountability to investors. And last, CSR could enable you to better engage with customers. (Heyward, 2018). Furthermore, historically, failing to fulfill social obligations meant losing one's predominance and starting to be overtaken by others. (Drucker, 1999). Therefore, it is wise to uphold moral convictions and be careful not to compromise them for monetary benefit. Killing the goose that lays the golden eggs will not keep the business last long.

**Body paragraph 3**: Legal Restraint

Unfortunately, companies are always considering their profitability first rather than their responsibility. With the sudden arrival of AI, many existing rules and regulations were collapsed where new policies could not keep up with the change. And without obeying the moral principles, AI will become a power out of control. “If data can move to these unregulated areas, users’ information will be invaded without restrictions.” (Xie, 2018).

But if the laws strictly protected personal big data privacy, big data initiatives and its corresponding business models will be seriously hindered. (Salleh, 2016). It is no doubt a dilemma. The privacy challenge is not only an issue in developed countries and areas. It is a fundamental right for everyone. Therefore, if we don't want to be continually threatened by the massive data we produce, it is a necessary initiative to build a worldwide consensus on the ethical principles of AI: sensitive data must be clearly defined, and the process of personal data collection must be standardized globally. (Xie, 2018). The good news is that with major companies such as Google, Facebook, and Apple facing charges regarding the unethical use of user data generated, various countries such as India are using stringent IT rules to restrict the flow. (Vadapalli, 2022).

**Conclusion**

As a conclusion, AI brings advantages and convenience, but it also brings challenges and risks to people. We should clearly be aware of that the big data technologies will become a tool only serve the companies and governments not the users and customers if we only care about the service the company provides. (Hervais, 2015). The unity of ethical AI, corporate social responsibility, and collaborative legislation will save the future of humanity from immoral artificial intelligence and the evils who master it.

**Annotated Bibliography**

Chen, C. (2021, February 28). *How China’s internet giants have failed the country’s youth.* South China Morning Post. [**https://www.scmp.com/tech/big-tech/article/3123425/how-chinas-internet-giants-have-failed-countrys-youth**](https://www.scmp.com/tech/big-tech/article/3123425/how-chinas-internet-giants-have-failed-countrys-youth)

This article is about social responsibility of Chinese tech giants. After years of freewheeling development, the high-tech businesses felt that their progress had stalled. To survive business competition, the pursuit of sustained growth at all costs becomes a new kind of work value for most of tech giants of China. The 996 work schedule–9am to 9pm, six days a week – became a popular solution for companies to reclaim their chance to survive. But real technological advancement starts by addressing people’s needs instead of suppressing them. Tech companies should take up the responsibility of building a more humane workplace. It is not too much to ask for a healthier work culture for Chinese tech workers. The bright future of China’s tech sector can only be sustained by energetic, fulfilled and dignified people.

Drucker, P. F. (1999, October). *Beyond the information revolution*. The Atlantic. [**https://www.theatlantic.com/magazine/archive/1999/10/beyond-the-information-revolution/304658/**](https://www.theatlantic.com/magazine/archive/1999/10/beyond-the-information-revolution/304658/)

This long article shows a brief introduction and displays a historical horizon to the evolution of information in the last century. First, the article introduced the first and second industrial revolutions. How people’s lives changed over a long period of time when those significant inventions and creations came into people’s life. Then similar things happened in this information revolution. The information technology revolution changes not only how customers buy but also what they buy. It changes consumer behavior, savings patterns, industry structure—in short, the entire economy. With these major new technologies came major new social institutions. In the near future, people will see the emergence of a number of new industries. And by the experience we learnt from history, few of them will come out of information technology, the computer, data processing, or the Internet. This will deeply infect international relations. What we call the "information revolution" is actually a "knowledge revolution." This means that the key to maintaining leadership in the economy and the technology that are about to emerge is likely to be the social position of knowledge professionals and social acceptance of their values. Bribing knowledge workers to be content to remain employees by giving them bonuses and stock options is not working in the future. If it can work at all, it can work only as long as the emerging industries enjoy a stock market boom, as the Internet companies have been doing. The next major industries are likely to behave far more like traditional industries—that is, to grow slowly, painfully, laboriously. Just like what Chinese high-tech companies have been experiencing recently. For them to remain traditional "employees" and be treated as such would be tantamount to England's treating its technologists as tradesmen—and likely to have similar consequences: losing its predominance and beginning to be overtaken by the others.

Fhom, H. S. (2015). Big Data: Opportunities and privacy challenges. *arXiv preprint arXiv:1502.00823*. [**https://doi.org/10.48550/arXiv.1502.00823**](https://doi.org/10.48550/arXiv.1502.00823)

The coming era of AI and big data has advantages and makes life easier, but it also presents risks and challenges to those who benefit from it. This essay provides a brief overview of the moral dilemma posed by misuse of data privacy. The first part of this survey discussed the benefits of using big data, which include business optimization, customer analytics, data-intensive science, medicine and healthcare, financial services, modern energy infrastructures, openness and efficiency in government, and so on. The second part states that the ethical challenge is un-negligible because of surveillance and discrimination, a lack of transparency, breaches or abuses of data privacy, and the omission of data protection laws. As a conclusion after reading this paper, I think people will be under surveillance if they don't have rights to their personal data, and the big data techniques will become a tool better serving the companies and governments than the users if we care only about the service they provide.

Heyward, C. (2020, Nov 18). *The growing importance of social responsibility in business.* Forbes. [**https://www.forbes.com/sites/forbesbusinesscouncil/2020/11/18/the-growing-importance-of-social-responsibility-in-business/?sh=4a741c072283**](https://www.forbes.com/sites/forbesbusinesscouncil/2020/11/18/the-growing-importance-of-social-responsibility-in-business/?sh=4a741c072283)

Although corporate social responsibility is not compulsory, there are several reasons it is important for companies to prioritize social responsibility: it can help you attract and retain employees; it shows a sign of accountability to investors; it saves money in a long-term operation; and it can enable you to better engage with customers.

Livingston, M. (2020, Dec 28). *The holy grail of enterprise AI: shifting to a people, profit and planet focus.* Forbes. [**https://www.forbes.com/sites/forbestechcouncil/2021/12/28/the-holy-grail-of-enterprise-ai-shifting-to-a-people-profit-and-planet-focus/?sh=512f7aae5808**](https://www.forbes.com/sites/forbestechcouncil/2021/12/28/the-holy-grail-of-enterprise-ai-shifting-to-a-people-profit-and-planet-focus/?sh=512f7aae5808)

The core concept is that ethical AI will be the cornerstone of efficient operations in the future. Understanding the inherent biases that exist in artificial intelligence will help organizations outperform their peer groups and create differentiation in a rapidly growing market. Having both cultural and gender diversity is key to having an AI landscape that can deliver ethical models without inherent bias. The holy grail for any AI corporation is a seamless network of partners, suppliers and customers who talk to each other in real-time, intelligently and at the speed of data. Through the deployment of ethical AI, is not only good for the future of business but also for our society at large.

Ma, S., & Cao, Y. (2022, July 21). *Ride-hailing giant didi fined over 8 billion yuan*. China Daily. [**https://global.chinadaily.com.cn/a/202207/21/WS62d95801a310fd2b29e6db39.html**](https://global.chinadaily.com.cn/a/202207/21/WS62d95801a310fd2b29e6db39.html)

This is a news report about one of the top internet high-tech companies, Didi. China is applying stricter regulation of data security on data breaches. Instead of just paying lip service, companies must devote large resources to beef up the protection of data and personal information. Therefore, taking responsibility for society is as important as earning money using new technologies. This case forced Chinese high-tech companies to seriously think about what is really important for the healthy development of companies.

Salleh, K. A., & Janczewski, L. (2016). Technological, organizational and environmental security and privacy issues of big data: A literature review. *Procedia computer science*, *100*, 19-28. [**https://doi.org/10.1016/j.procs.2016.09.119**](https://doi.org/10.1016/j.procs.2016.09.119)

The challenge of data privacy is not only caused by people's lack of vigilance, but also caused by organizational culture and environmental influences. The technical reason for big data challenges is that data is generated so fast for us to follow up with it. This creates difficulties in maintaining data protection and complex using of it in the future. Besides, the implementation of the protection required for a big data environment can be an expensive and challenging task. If the laws strictly protected personal big data privacy, big data initiatives and its corresponding business models will be seriously hindered. But companies are always considering their profitability first, not their responsibility. As a conclusion after reading this paper, I think legislation is still the most important way to fix this, or we will continually be threatened by the massive data we produce.

Vadapalli, P. (2022, October 3). Top 7 challenges in artificial intelligence in 2022. UpGrad. [**https://www.upgrad.com/blog/top-challenges-in-artificial-intelligence/**](https://www.upgrad.com/blog/top-challenges-in-artificial-intelligence/)

The impact of AI on human lives and the economy can add about $15.7 trillion to the world economy by 2030. This article introduces 7 main challenges of AI nowadays: restrictions of computing power limits the thrive of AI, trust deficit and potential ulterior motives of creating an AI, people's naive awareness of the potential of AI, perform a human like performance in general works, data privacy and security, bias and data scarcity. One of the biggest problems with artificial intelligence is that the sophisticated and expensive processing resources needed are unavailable to the majority of businesses. Additionally, they lack access to the expensive and scarce AI expertise required to utilize those resources effectively. There are three ways to overcome the above-mentioned problems: utilize the already existing AI technologies, keep updating AI technologies regularly, and take advantage of the latest technology.

Wang, Y. (2021, October 8). *Food delivery giant meituan fined $534 million for violating antitrust law.* Forbes. [**https://www.forbes.com/sites/ywang/2021/10/08/food-delivery-giant-meituan-fined-534-million-for-violating-antitrust-law/?sh=5feb01254d97**](https://www.forbes.com/sites/ywang/2021/10/08/food-delivery-giant-meituan-fined-534-million-for-violating-antitrust-law/?sh=5feb01254d97)

The State Administration for Market Regulation levied the fine, which equates to 3% of the food delivery giant Meituan’s domestic revenue for 2020 because it forced its customer to choose their service or prepared to be kicked out from their service. This business practice violate antitrust practices. Therefore, Meituan 3.44 billion yuan ($534 million).

Xie, L. (2018, May). Who Moved My data? Information Privacy Concerns In the Big Data Era. In *4th International Symposium on Social Science (ISSS 2018)* (pp. 299-303). Atlantis Press. [**https://doi.org/10.2991/isss-18.2018.61**](https://doi.org/10.2991/isss-18.2018.61)

This paper started with a case study – PRISM. Readers can get information as follows: the government knows our privacy; these data are provided by internet giants; and we have been well known by the Internet; if the government gains the ability to monitor and analyze people, so do those giant companies. And unluckily, we can neither stop the government after data exposed nor those companies in most of cases. The reasons why these risks appears are as follow: First, people leak information in traditional ways before the big data era, but nowadays, the ways to get private information are of greater diversity; second, people will be monitored by devices and public services as long as they are connected to the internet; and third, big data analysis is more powerful only if it observes tremendous data, which has been true in recent years. So, after these, is the risks could be prevented? Do we have methods of protecting data privacy in big data era? As a conclusion after reading this paper, I think there are three key measures to solve this problem: improving technical methods to protect data privacy as a technology measure; pushing governments to take the responsibility to protect public’s information privacy by enacting regulations as legislation measure; and training individuals to improve privacy awareness and take measures to protect their sensitive information as an individual measure.

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