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國立清華大學 110 學年度碩士班考試入學試題

系所班組別：外國語文學系
甲組(外國文學組)

科目代碼：3803

考試科目：文本分析

—作答注意事項—

1. 請核對答案卷(卡)上之准考證號、科目名稱是否正確。
2. 考試開始後，請於作答前先翻閱整份試題，是否有污損或試題印刷不清，得舉手請監試人員處理，但不得要求解釋題意。
3. 考生限在答案卷上標記「由此開始作答」區內作答，且不可書寫姓名、准考證號或與作答無關之其他文字或符號。
4. 答案卷用盡不得要求加頁。
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6. 其他應考規則、違規處理及扣分方式，請自行詳閱准考證明上「國立清華大學試場規則及違規處理辦法」，無法因本試題封面作答注意事項中未列明而稱未知悉。

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Read the following excerpts from Shoshana Zuboff, *The Age of Surveillance Capitalism*:

Google was incorporated in 1998, founded by Stanford graduate students Larry Page and Sergey Brin.... From the start, the company embodied the promise of information capitalism as a liberating and democratic social force that galvanized and delighted second-modernity populations around the world.

Thanks to this wide embrace, Google successfully imposed computer mediation on broad new domains of human behavior as people searched online and engaged with the web through a growing roster of Google services. As these new activities were informed for the first time, they produced wholly new data resources. For example, in addition to key words, each Google search query produces a wake of collateral data such as the number and pattern of search terms, how a query is phrased, spelling, punctuation, dwell times, click patterns, and location.

Early on, these behavioral by-products were haphazardly stored and operationally ignored.... Google's engineers soon grasped that the continuous flows of collateral behavioral data could turn the search engine into a recursive learning system that constantly improved search results and spurred product innovations such as spell check, translation, and voice recognition.

...

At that early stage of Google's development, the feedback loops involved in improving its Search functions produced a balance of power: Search needed people to learn from, and people needed Search to learn from. This symbiosis enabled Google's algorithms to learn and produce ever-more relevant and comprehensive search results. More queries meant more learning; more learning produced more relevance. More relevance meant more searches and more users.... The Page Rank algorithm, named after its founder, had already given Google a significant advantage in identifying the most popular results for queries. Over the course of the next few years it would be the capture, storage, analysis, and learning from the by-products of those search queries that would turn Google into the gold standard of web search.

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The key point for us rests on a critical distinction. During this early period, behavioral data were put to work entirely on the user's behalf. User data provided value at no cost, and that value was reinvested in the user experience in the form of improved services: enhancements that were also offered at no cost to users. Users provided the raw material in the form of behavioral data, and those data were harvested to improve speed, accuracy, and relevance and to help build ancillary products such as translation. I call this the behavioral value reinvestment cycle, in which all behavioral data are reinvested in the improvement of the product or service.

...

This helps to explain why it is inaccurate to think of Google's users as its customers: there is no economic exchange, no price, and no profit. Nor do users function in the role of workers. When a capitalist hires workers and provides them with wages and means of production, the products that they produce belong to the capitalist to sell at a profit. Not so here. Users are not paid for their labor, nor do they operate the means of production, as we'll discuss in more depth later in this chapter. Finally, people often say that the user is the "product." This is also misleading, and it is a point that we will revisit more than once. For now let's say that users are not products, but rather we are the sources of raw-material supply. As we shall see, surveillance capitalism's unusual products manage to be derived from our behavior while remaining indifferent to our behavior. Its products are about predicting us, without actually caring what we do or what is done to us.

To summarize, at this early stage of Google's development, whatever Search users inadvertently gave up that was of value to the company they also used up in the form of improved services. In this reinvestment cycle, serving users with amazing Search results "consumed" all the value that users created when they provided extra behavioral data. The fact that users needed Search about as much as Search needed users created a balance of power between Google and its populations. People were treated as ends in themselves, the subjects of a nonmarket, self-contained cycle that was perfectly aligned with Google's stated mission "to organize the world's information, making it universally accessible and useful."

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By 1999, despite the splendor of Google's new world of searchable web pages, its growing computer science capabilities, and its glamorous venture backers, there was no reliable way to turn investors' money into revenue. The behavioral value reinvestment cycle produced a very cool search function, but it was not yet capitalism.... For all their genius and principled insights, Brin and Page could not ignore the mounting sense of emergency. By December 2000, the *Wall Street Journal* reported on the new "mantra" emerging from Silicon Valley's investment community: "Simply displaying the ability to make money will not be enough to remain a major player in the years ahead. What will be required will be an ability to show sustained and exponential profits."

...

At Google in late 2000, it became a rationale for annulling the reciprocal relationship that existed between Google and its users, steeling the founders to abandon their passionate and public opposition to advertising.... To meet the new objective, the behavioral value reinvestment cycle was rapidly and secretly subordinated to a larger and more complex undertaking. The raw materials that had been solely used to improve the quality of search results would now also be put to use in the service of targeting advertising to individual users. Some data would continue to be applied to service improvement, but the growing stores of collateral signals would be repurposed to improve the profitability of ads for both Google and its advertisers. These behavioral data available for uses beyond service improvement constituted a surplus, and it was on the strength of this behavioral surplus that the young company would find its way to the "sustained and exponential profits" that would be necessary for survival. Thanks to a perceived emergency, a new mutation began to gather form and quietly slip its moorings in the implicit advocacy-oriented social contract of the firm's original relationship with users.

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In other words, Google would no longer mine behavioral data strictly to improve service for users but rather to read users' minds for the purposes of matching ads to their interests, as those interests are deduced from the collateral traces of online behavior. With Google's unique access to behavioral data, it would now be possible to know what a particular individual in a particular time and place was thinking, feeling, and doing. That this no longer seems astonishing to us, or perhaps even worthy of note, is evidence of the profound psychic numbing that has inured us to a bold and unprecedented shift in capitalist methods.

1. Summarize Zuboff's argument in no more than 200 words. (40%)
2. Critically engage with Zuboff's take on Google's turn toward surveillance capitalism. Do you agree or disagree with her critique? What insight (or the lack thereof) do you draw from her analysis? Finally, is there any way to avoid the kind of "profound psychic numbing" mentioned in the last sentence? (60%)