

2021 年度 京都精華大学大学院

デザイン研究科 修士課程(実技系) 2期入学試験問題

小論文 (英語解答)

試験時間 10:30~12:00

試験時間内に解答を入力してください。

辞書および電子辞書の持ち込みは不可。

Question

Read the attached text, and state your opinion on the issue from the designers' viewpoint. (No Word Limit.)

Text:

DIGITAL DESIGN THEORY—Reading From The Field

Edited by Helen Armstrong

Princeton Architectural Press New York

## POSTHUMAN - CENTERED DESIGN

HAAKON FASTE | 2015

Futurist experts have estimated that by the year 2030 computers in the price range of inexpensive laptops will have a computational power that is equivalent to human intelligence . [3] The implications of this change will be dramatic and revolutionary , presenting significant opportunities and challenges to designers . Already machines can process spoken language , recognize human faces , detect our emotions , and target us with highly personalized media content . While technology has tremendous potential to empower humans , soon it will also be used to make them thoroughly obsolete in the workplace , whether by replacing , displacing , or surveilling them . [4] More than ever designers need to look beyond human intelligence and consider the effects of their practice on the world and on what it means to be human . The question of how to design a secure human future is complicated by the uncertainties of predicting that future . As it is practiced today , design is strategically positioned to improve the usefulness and quality of human interactions with technology . Like all human endeavors , however , the practice of design risks marginalization if it is unable to evolve . When envisioning the future of design , our social and psychological frames of reference unavoidably and unconsciously bias our interpretation of the world . People systematically underestimate exponential trends such as Moore's law , for example , which tells us that in ten years we will have thirty - two times more total computing power than today . [5] Indeed , as computer scientist Ray Kurzweil observes , “ we won't experience one hundred years of technological advances in the twenty - first century ; we will witness on the order of twenty thousand years of progress ( again when measured by today's rate of progress ) , or about one thousand times greater than what was achieved in the twentieth century . ” [6] Design - oriented research provides a possible means to anticipate and guide rapid changes , as design , predicated as it is on envisioning alternatives through “ collective imagining , ” is inherently more future - oriented than other fields . [7] It therefore seems reasonable to ask how technology - design efforts might focus more effectively on enabling human - oriented systems that extend beyond design for humanity . In other words , is it possible to design intelligent systems that safely design themselves ?

[3] Hans Moravec, “When Will Computer Hardware Match the Human Brain?”  
Journal of Evolution & Technology 1 (1998).

[4] Zeynep Tufekci, “The Machines Are Coming,” New York Times, April 18, 2015.

[5] Jennifer Mankoff, Jennifer A. Rode, and Haakon Faste, “Looking Past Yesterday's Tomorrow: Using Futures Studies Methods to Extend the Research Horizon,” Proc. ACM Conference on Human Factors in Computing Systems (2013), 1629–38.

[6] Ray Kurzweil, The Singularity Is Near: When Humans Transcend Biology (New York: Viking, 2005).

[7] Paul Dourish and Genevieve Bell, “Resistance Is Futile: Reading Science Fiction Alongside Ubiquitous Computing,” Personal and Ubiquitous Computing 18, no. 4 (2014): 769–78.