How Information about Generative AI Shapes Workers' Expectations: Evidence from a Survey Experiment

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Motivation

- GenAI can assist workers with their tasks or automate tasks they currently perform. **Complementarity** accounts emphasize productivity gains, while **substitution** accounts emphasize risks to employment opportunities.
- GenAI's broader economic and employment consequences remain uncertain. Workers nevertheless face decisions about learning new skills and changing occupations.
- **Do workers receiving complementarity or substitution information differ from those receiving no information in their economic and work-related expectations and intentions to prepare?**

Data & Methods

- **Sample:** The analysis includes 1,650 employed adults in South Korea, recruited through Remember and OpenSurvey. Their mean age was 44.3 years, 27.4% were female, and 88.2% reported a four-year university education or higher.
- **Design:** We conducted a randomized survey experiment, assigning respondents within each platform to complementarity information, substitution information, or no information. The infographics emphasized either task assistance, productivity gains, and employment opportunities or task replacement and reduced employment opportunities. Each analytical group includes 550 respondents.
- **Data:** We measured 18 outcomes across three domains: macroeconomic expectations, expectations and intentions concerning respondents' own work, and GenAI learning intentions. All outcomes used 1–7 response scales. Respondents reported economic and work-related expectations and occupational intentions for one and five years ahead. Learning intentions concerned the coming year.
- **Analysis:** We estimate adjusted differences between each information group and the no-information group using OLS, controlling for recruitment platform and demographics: age, sex, education, and income. We report 95% confidence intervals based on HC1 robust standard errors.

Experimental design

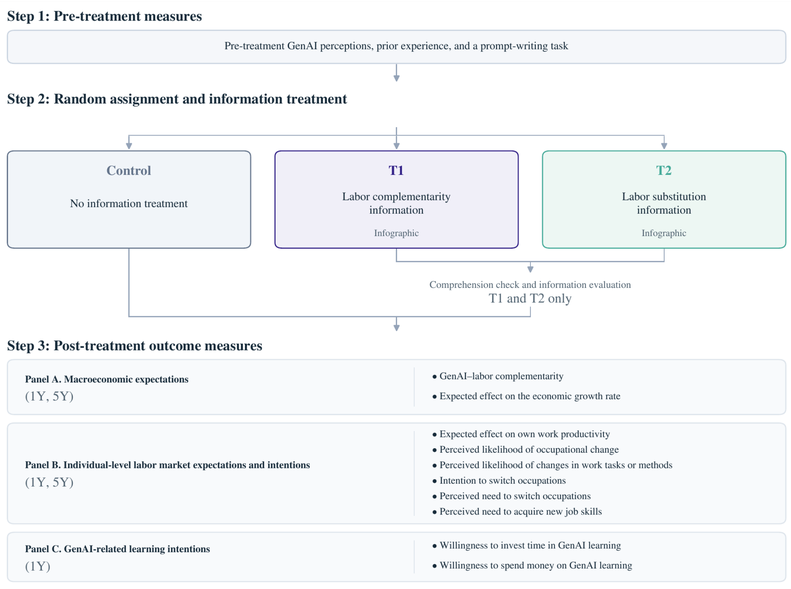
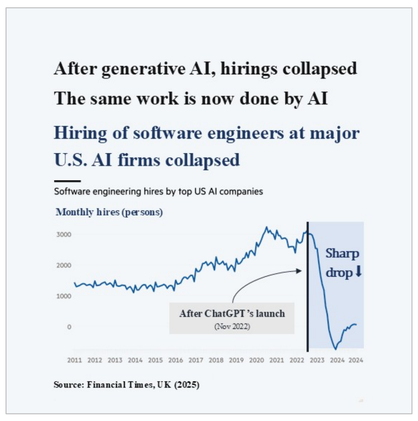


Figure 1. Flow of the survey experiment

Information treatments: infographics



T1: complementarity



T2: substitution

What We Find

Panel A. Macroeconomic expectations

- The complementarity group expected greater complementarity between GenAI and human labor five years ahead. The substitution group expected greater substitution one year ahead.
- Both information groups expected GenAI to contribute less to economic growth one and five years ahead.

Panel B. Individual work expectations and intentions

- Both information groups expressed weaker intentions to change occupation one and five years ahead. They also reported less need to change occupation over the coming year.
- The substitution group expected smaller gains in their own productivity one and five years ahead.
- Respondents in the substitution group also considered changes to their current occupation less likely at both horizons.

Panel C. GenAI learning intentions

- We find little evidence that either information group differed from the no-information group in willingness to invest time in learning to use GenAI.
- Respondents receiving substitution information expressed weaker intentions to spend money on GenAI learning than those receiving no information.

Main results

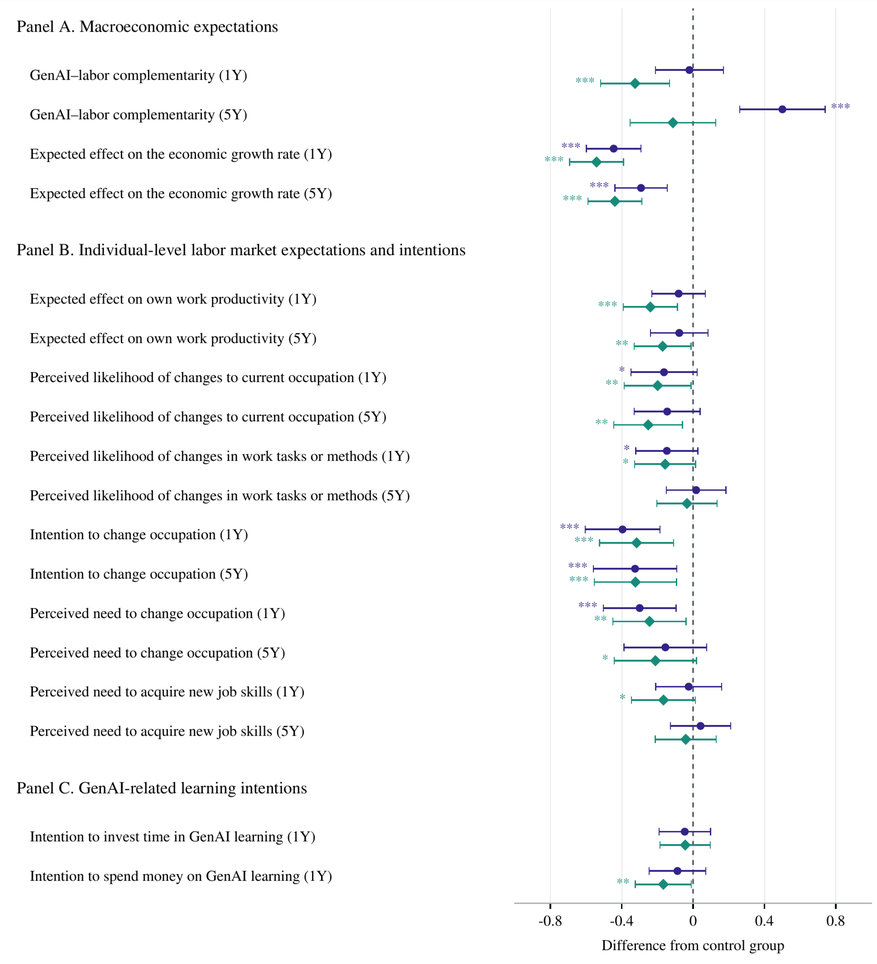


Figure 2. Differences from Control (1–7 scales); 95% CIs (HC1). * p<0.10, ** p<0.05, *** p<0.01

Who Responds Differently?

- **Prior awareness of GenAI's factual errors.** At higher awareness scores, both information groups showed more negative differences in five-year growth expectations and intentions to spend money on GenAI learning.

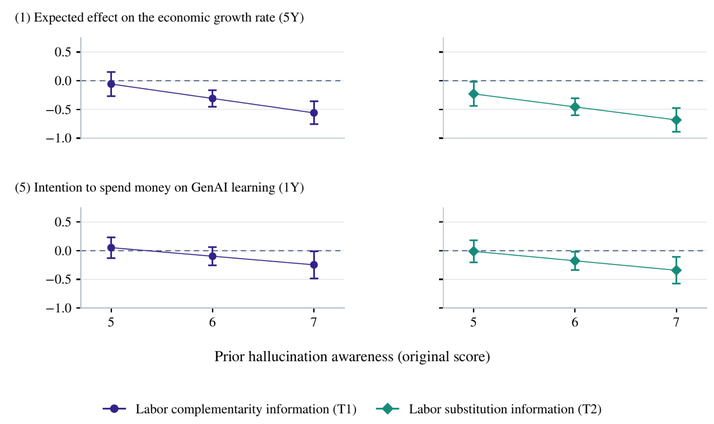


Figure 3. Fitted differences by prior hallucination awareness (2 of 5 panels); 95% CIs.

- **GenAI use frequency and prompt-writing ability.** At a lower prompt-writing score (25th percentile), learning-time differences declined with daily-life GenAI use in both information groups. At a higher score (75th percentile), they increased with daily-life use, reaching close to zero for everyday use, with confidence intervals including zero. These patterns are exploratory.

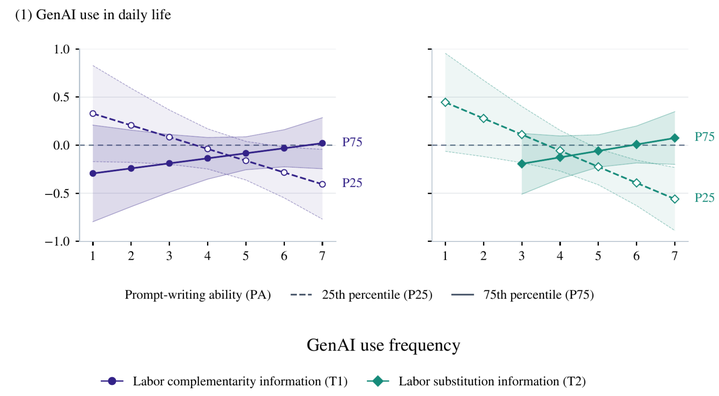


Figure 4. Fitted differences in 1-year learning-time intentions (daily-life use panel); 95% CIs.

Conclusion and Implications

- Both information groups expected GenAI to contribute less to economic growth and expressed weaker intentions to change occupation than the no-information group. We find little evidence that either group differed in willingness to invest time in GenAI learning.
- The study adds evidence on workers' expectations and intended preparation to research on GenAI exposure and labor demand. Within a single survey experiment, we examine macroeconomic expectations, expectations about workers' own work, and GenAI learning intentions together.
- When planning career guidance and training, policymakers could consider how workers expect GenAI to affect the economy and their own work, and whether they intend to learn to use GenAI or change occupations.

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