Comments on
Frey and Osborne's "The Future of Employment"
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Basic Assumptions

" Beyond these bottlenecks, however, we argue that it is largely already technologically possible to automate almost any task, provided that sufficient amounts of data are gathered for pattern recognition."

Three Bottlenecks:

- Creative Intelligence Tasks

- Social Intelligence Tasks

- Perception and Manipulation

Methodology I

- Begin with the Bureau of Labor Statistics data set of of 702 Occupations (same list we received).

- Attach to each occupational title, nine variables describing the occupation's level of Creative Intelligence, Social Intelligence and Perception and Manipulation – the bottleneck variables*

* The nine variables come from the Department of Labor's O*NET survey which utilizes trained individuals coding job attributes.

Methodology II

- Select 70 of the 702 Occupational titles where authors are **confident** that the occupation will be replaced by computers (code = 1) or that the occupation will not be replaced by computers (code = 0)

- Use the 70 observations to estimate a logit model of the form:

$$(1 \text{ or } 0) = f \text{ (nine bottleneck variables)}$$

- Apply the coefficients of the estimated model to each of the 702 occupations to calculate the *ex ante* probability of computerization.

Questionable Candidate Computerized Jobs

- Motorboat operators
- Bus drivers
- Light truck or delivery services drivers and
- Taxi drivers

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- Dishwashers and Fast Food Cooks
- Law Clerks

Conclusions

- The General Proposition - Computers will be subsuming an increasing share of current occupations – is unassailable.

- The Paper is a set of guesses with lots of padding to increase the appearance of "scientific precision."

- The authors' understanding of computer technology appears to be average for economists (= poor for computer scientists). By my personal guess, they are overestimating what current technology can do.