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## COMMENTARY

## Thinking of work skills for the future

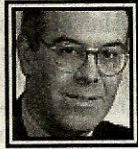
BY DAVID BROOKS

**W**e're living in an era of mechanized intelligence, an age in which you're probably going to find yourself in a workplace with diagnostic systems, algorithms and computer-driven data analysis. If you want to thrive in this era, you probably want to be good at working with intelligent machines. As Tyler Cowen puts it in his relentlessly provocative recent book, "Average Is Over," "If you and your skills are a complement to the computer, your wage and labor market prospects are likely to be cheery. If your skills do not complement the computer, you may want to address that mismatch."

So our challenge for the day is to think of exactly which mental abilities complement mechanized intelligence. Off the top of my head, I can think of a few mental types that will probably thrive in the years ahead.

**FREESTYLERS.** As Cowen notes, there's a style of chess in which people don't play against the computer but with the computer. They let the computer program make most of the moves, but, occasionally, they overrule it. They understand the strengths and weaknesses of the program and the strengths and weaknesses of their own intuition, and, ideally, they grab the best of both.

This skill requires humility (most of the time) and



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self-confidence (rarely). It's the kind of skill you use to overrule your GPS system when you're driving in a familiar neighborhood but defer to it in strange surroundings. It is the sort of skill a doctor uses when deferring to or overruling a diagnostic test. It's the skill of knowing when an individual case is following predictable patterns and when there are signs it is diverging from them.

**SYNTHESIZERS.** The computerized world presents us with a surplus of information. The synthesizer has the capacity to surf through vast amounts of online data and crystallize a generalized pattern or story.

**HUMANIZERS.** People evolved to relate to people. Humanizers take the interplay between man and machine and make it feel more natural. Steve Jobs did this by making each Apple product feel like non-technological artifact. Someday a genius is going to take customer service phone trees and make them more human. Someday a retail genius is going to figure out where customers probably want automated checkout (the drug store) and where they want the longer human interaction (the grocery store).

**CONCEPTUAL ENGINEERS.** Google presents

prospective employees with challenges like the following: How many times in a day do a clock's hands overlap? Or: Figure out the highest floor of a 100-story building you can drop an egg from without it breaking. How many drops do you need to figure this out? You can break two eggs in the process.

They are looking for the ability to come up with creative methods to think about unexpected problems.

**MOTIVATORS.** Millions of people begin online courses, but few actually finish them. I suspect that's because most students are not motivated to impress a computer the way they may be motivated to impress a human professor. Managers who can motivate supreme effort in a machine-dominated environment are going to be valuable.

**MORALIZERS.** Mechanical intelligence wants to be efficient. It will occasionally undervalue essential moral traits, like loyalty. Soon, performance metrics will increasingly score individual employees. A moralizing manager will insist that human beings can't be reduced to the statistical line. A company without a self-conscious moralizer will reduce human interaction to the cash nexus and end up destroying morale and social capital.

**GREETERS.** An economy that is based on mechanized intelligence is likely

to be a wildly unequal economy, even if the government tries to combat that inequality. Cowen estimates that perhaps 15 percent of workers will thrive, with plenty of disposable income. There will be intense competition for these people's attention. They will favor restaurants, hotels, law firms, foundations and financial institutions where they are greeted by someone who knows their name. People with this capacity for high-end service, and flattery, will find work.

**ECONOMIZERS.** The bottom 85 percent is likely to be made up of people with less marketable workplace skills. Some of these people may struggle financially but not socially or intellectually. That is, they may not make much running a food truck, but they can lead rich lives, using the free bounty of the Internet. They could use a class of advisers on how to preserve rich lives on a small income.

**WEAVERS.** Many of the people who struggle economically will lack the self-motivation to build rich inner lives for themselves. Many are already dropping out of the labor force in record numbers and drifting into disorganized, disaffected lifestyles. Public and private institutions are going to hire more people to fight this social disintegration. There will be jobs for people who combat the dangerous inegalitarian tendencies of this new world.