

Cattle prod

SIR — “Meat and greens” (January 18th) was a valuable contribution to the debate on environmental issues regarding livestock. However, the article gave the impression that the only way to reduce greenhouse-gas emissions connected to farming livestock in the developing world is to abandon small farms and pastoral herding and switch to factory or industrial-style operations. Actually, much research calls for a move to more sustainable, market-oriented farming. By adopting better feeds, breeds and grazing practices, for example, the 1 billion poor who keep livestock can greatly reduce their climate hoofprints and still improve their livelihoods and nutrition.

We need to stop treating farm animals as equivalent the world over. After all, a cow in east Texas that provides another steak dinner for a rich, overfed family and a cow in east Africa that provides just enough milk to meet the minimum nutritional needs of a poor family are very different things. There simply is no moral equivalent between those making poor food choices and those with no food choices at all.

JIMMY SMITH
Director-general
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Still the Golden State

SIR — Schumpeter’s column on California (January 25th) noted the “rush of businesses” out of the state. However, more than 60% of jobs that move out of California are offset by jobs moving in. More importantly, the annual net loss of jobs due to out-migration is just 0.05% of California’s job base. More than 98% of job creation and loss in California is because of businesses opening, closing and expanding or shrinking in place, not job migration.

Any discussion of California’s economy or business climate should start with the right facts. Looking at employment overall, job growth in

California has equalled the American average both over the past year and over the past 20 years. California’s GDP growth surpasses America’s as a whole both recently and over the longer-term.

California’s economy may be falling short of its potential and of its own past golden age, but what is most striking is that the state’s growth keeps pace with America’s, despite onerous regulations, taxes and, above all, housing costs.

JED KOLKO
San Francisco

Man against the machine

SIR — You were right to analyse the threat to jobs posed by technology (“The onrushing wave”, January 18th). It is worth stressing that the capital substitution for labour is largely not through “machines” but through intangibles such as intellectual property (IP), business models, algorithms, data aggregations and now also digital currencies. As one example, the lion’s share of the iPhone’s profits accrues to the owners of the IP, rather than the owners of the machines that make the smartphones. Equally, the vast share of the profits from the chips that are used to power smart devices accrue to the owners of the patents on various circuit components that constitute the chip.

I also agree that we must indeed increase our understanding of how education, the workplace and society are to be reformed to meet the challenge of the digital age.

VLADIMIR ZWASS
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SIR — At some level, the mean native intelligence of any species is limited by its genes. Human genes have not changed appreciably in the brief history of civilisation. Exploiting native intelligence to meet the needs of the Industrial Revolution and the post-war technology revolution required only seeking out the overlooked and undereducat-

ed talent in the working class. Now that we are sending more than half the entire population to college, the native intelligence of our species may be a limiting resource for an increasingly complex society. Exhorting students to be more conscientious so that we can give them postgraduate degrees won’t be enough.

The information revolution is already letting employees punch above their IQ in many fields, so it is both the source of and the solution for this problem. But that risks turning a whole new class of workers into relatively mindless, underappreciated and underpaid drones.

The next generation of revolutionaries may be targeting the intelligentsia rather than aristocrats or capitalists.
GERALD LOEB
Professor of biomedical engineering
University of Southern California
Los Angeles

SIR — Another important factor is urbanisation. Migration in developing countries and the renewal of city centres in America and Europe has resulted in more urban dwellers who are big consumers of services such as laundromats, restaurants, cafés, gyms and theatres. Plenty of jobs are created that are difficult to be replaced by machines.

For example, coffee-vending machines have been around for decades, yet more coffee shops exist now than at any other time in the past.
JOHANNES MAURITZEN
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SIR — It is a myth that the workingman’s lot did not improve during the early decades of the Industrial Revolution. Wages may not have risen much, but England’s agricultural regions in 1800 were vast areas of disguised unemployment. Labourers left the farms, where wages were too low to measure and work was intermittent at best, for industrial work where wages were higher and employment was regular.

The improvement in living standards is documented in Emma Griffin’s, “Liberty’s Dawn”.

PAUL DEROSA
Tenafly, New Jersey

SIR — By stating that “the real shortage is of the right skills, rather than of jobs” (“All hands on deck”, January 18th), you neglect the fact that the quantity of the unemployed vastly outnumber the quantity of job openings. In America the ratio of the unemployed to total job openings is 2.7 to 1.

KENNETH GOOD
Pittsburgh

SIR — Erik Brynjolfsson and Andrew McAfee relayed an apocryphal exchange between Henry Ford II and Walter Reuther, the president of the United Automobile Workers, in their “Race Against the Machine”. Both men are touring a modern car factory when Ford jokingly jabs at Reuther: “Walter, how are you going to get these robots to pay UAW dues?” Not missing a beat, Reuther responds: “Henry, how are you going to get them to buy your cars?”

JIM SEVERANCE
Loganville, Wisconsin

Erotic corn

SIR — Being a fan of anagrams, I enjoyed your ingenious description of research on artificial-intelligence algorithms, which you erroneously called “logarithms” (The world this week, February 1st). In the same spirit, please inform the proof dearer of your sewn paper that I eagerly anticipate more word mages the next mite I relax in my living moor and nope your electronic pap on my paid.

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