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Protecting Workers in the Era of AI

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As is well known, artificial Intelligence (AI) is growing more powerful all the time, which will greatly benefit society with higher productivity and incomes over time.

But many workers fear that AI may displace them from their jobs. There has never been any evidence that automation causes high unemployment over time in any economy, despite the concerns of the Luddites over two centuries ago in Britain, which have reappeared periodically since then. Throughout automation history, new jobs are created while older ones shrink, and new work categories emerge as others are eliminated. For instance, when Henry Ford created the assembly line, the jobs of skilled craftsmen who had built cars disappeared, while millions of new jobs on assembly lines emerged as cars became vastly more affordable and market demand skyrocketed.

Still, some workers are hurt – either as they get displaced or lose wages and benefits (from competition with displaced workers or the new machines). In fact, this happened among workers without college degrees, and especially among men, as a result of the Digital Revolution of the 1980s and 1990s (on top of other sources of inequality, like globalization and declining union membership). Workers adjust by getting more education or training, so that they can use the new automation rather than compete with it; but this can be a slow process taking decades or generations.

And AI could generate unprecedented challenges for workers – since it is constantly improving in its ability to take over the tasks of workers. Workers might make costly adjustments to their skills, only to find AI overtaking those skills a few years down the road.

What can policymakers do to help workers adjust? Effective intervention should be done in three realms.

Preparing Prospective Workers in K-12 Schooling and Early Higher Education

In their K-12 years, prospective workers should learn AI literacy but also a set of skills that *complement* the use of AI (rather than being substituted by it). These human-centered skills include critical thinking, good judgement, social and interactive skills, communication, and creativity. Even as AI improves over time, these skills will enable workers to retrain as AI expands its capabilities.

Public and private education practitioners and policymakers will need to continually revamp school curricula at all levels, to keep skills complementary with AI. In higher education, and especially community colleges workforce programs, educators will need partnerships with regional and national employers to stay abreast of changes in skill needs as automation evolves, while state and federal policy officials set standards and offer assistance in this process.

Workplace Skill Formation

On the job, employers will have a great deal of discretion over whom to retrain for new jobs and whom to let go as AI becomes used more widely. Their judgments might be tarnished by bias based on worker race/gender as well as education and experience biases. It is well-known that employers invest much more heavily in training their professional and managerial employees than any others. Other factors, like a tax code that tends to favor new equipment over workers, reinforce this tendency. These biases need to be offset.

State and federal officials can incentivize and assist employers in retraining workers by offering them various "carrots" and "sticks".

Subsidies and technical assistance for retraining on the job can incentivize employers. Policymakers can help them embrace more work-based learning, such as internships and apprenticeships. If AI is eliminating entry-level jobs, which might be already happening, efforts to provide more work-based learning for early work experience could alleviate this development.

Modest taxes on worker displacement by firms may provide deterrence. Taxing employers for displacement can be justified by the "public good" nature of avoiding it – since displacement is very costly, not only to workers with specific training and seniority, but also to families and communities (as deindustrialization hurt Rustbelt regions for decades).

There is precedent for taxing employers who generate more layoffs: the taxes that finance Unemployment Insurance are "experience rated," so that employers generating more layoffs pay higher tax rates. But experience-rating treats permanent and temporary layoffs equally, though the former are vastly costlier to workers and society than the latter. A displacement tax would address that fact and provide resources to subsidize on-the-job training. And a displacement tax would not be a "robot" or AI tax – it should not be so high as to discourage AI use. The tax would only affect how (and for whom) AI adoption is implemented, not whether or not it is.

Finally, if AI tends to raise employer profits at the expense of their workers, policymakers should encourage more employer profit-sharing by expanding preferential tax treatment of such plans and other forms of encouragement.

Post-Employment Training

Workers may need help getting retrained on their own as they see AI coming down the road. Retraining needs to be made more accessible and more affordable, along with guidance to workers about the skills that they need in a dynamic marketplace.

Community colleges and other training providers will need to partner continually with employers to keep their programs and curricula up to date. Sector-based training, already very effective when well-implemented, will need to be expanded and refreshed on a continual basis. Training providers will need accurate and up-to-date labor market data to inform them of current and future demands. In higher education, not-for-credit programs might gain more prominence, as these can be more rapidly adjusted in a dynamic economy. Indeed, community colleges are learning to "stack" such courses and credentials into credit-bearing programs, which

still draw better compensation in the labor market.

New ways to finance such training must be developed. At the moment, Pell grants and Title IV loans from the federal government are only available to for-credit programs and accredited institutions. This could change, though quality guardrails will be critical to protect borrowers and taxpayers from low-quality provider gouging.

Another option involves new "Talent Finance" models for financial aid. For example, income-share agreements and outcome-based loans require trainees only to repay lenders after achieving certain levels of earnings. "Lifelong learning accounts" (or "skills savings accounts") should be expanded so workers can build up money for training through small payroll deductions each pay period. The federal government might also consider expanding Trade Adjustment Assistance – a program providing some income support for workers who retrain after losing a job to imports – to a program that also covers automation-based displacement.

Finally, we can develop better virtual training with "intelligent tutoring systems" (ITS) which would make training less costly and accessible from home or the workplace rather than classrooms and campuses.

Ensuring AI Productivity Gains Are Broadly Shared

Overall, policymakers should:

- Promote up-to-date curricula that prioritize human-centered skills to complement AI in education.
- Incentivize employers to eliminate biases in on-the-job training, through subsidies and technical assistance, and a modest "displacement tax" that does not deter AI adoption, plus more profit-sharing.
- Adopt policies to assist retraining, such as partnerships with community colleges or training providers, new financing models, and effective virtual training.

These actions will not only protect workers from the costs of displacement and wage loss but also make sure that the productivity gains of AI are broadly shared.