

The Intrinsic Advantage: Self-Determination, the Automation of Purpose, and the Case for Interest-Driven Education in a Post-Scarcity Economy

Travis Gilly¹

ORCID: 0009-0007-2954-6313

Real Safety AI Foundation

Illinois, United States

Working paper, June 2026 (v5)

ABSTRACT

The displacement debate around advanced automation has concentrated on employment and income. This paper argues that the more durable casualty is purpose. For a large share of the workforce, a sense of mattering has been wired to externally imposed structure and to productive output, and the removal of that structure produces a crisis that income replacement alone does not resolve. A subpopulation appears insulated from this crisis. Their motivation is intrinsic rather than extrinsic, organized around self-chosen interest rather than external demand, and that orientation does not depend on the labor economy for its survival. Drawing on Self-Determination Theory, this paper characterizes the insulation as a function of motivational orientation rather than a fixed personality trait, which means it is in principle cultivable. Interest-driven and self-directed education is proposed as the mechanism by which the orientation could be scaled from a minority adaptation toward a general one, built before the economic transition arrives rather than improvised after it. The argument is deliberately bounded. It addresses the meaning dimension of post-scarcity, not the material dimension. The distribution of abundance is a separate problem on a separate front, and the cultivation of intrinsic motivation does not resolve it. What interest-driven education can do is determine which side of the coming purpose divide a person is prepared to stand on.

Keywords: Self-Determination Theory, intrinsic motivation, technological unemployment, economic displacement, automation, future of work, artificial intelligence, meaning of work, latent deprivation, universal basic income, post-scarcity, interest-driven education, self-directed learning, neurodivergence

I. INTRODUCTION

The conversation about advanced automation has been a conversation about jobs. The question asked, again and again, is what people will do for income when machines can perform the cognitive and physical work that income once required. This paper takes the position that the income question, urgent as it is, sits on top of a deeper one that is easier to overlook precisely because it is harder to measure. The deeper question is not what people will do, but whether they will still matter, and to whom, when the economy no longer needs what they produce.

For a large portion of the population, the answer is bound up with a particular wiring. A sense of personal worth

¹The author discloses the use of speech-to-text software (Wispr Flow) and Anthropic's Claude as assistive technology for a diagnosed neurodevelopmental condition. All intellectual contributions, research questions, theoretical arguments, methodological decisions, and conclusions are solely the author's own.

has been organized around external structure, the schedule, the role, the title, the measurable output, and around the experience of being needed for that output. Remove the structure and the output, and the worth that was anchored to them has nothing left to hold. This is not a failure of character. It is the predictable result of a lifetime spent inside institutions, beginning with school and continuing through work, that supply purpose from the outside and never require the individual to generate it from within.

Yet a subpopulation does not appear to suffer this collapse. Their motivation was never organized around external demand in the first place. It runs on intrinsic interest, on the pursuit of whatever is absorbing in the present moment, and that engine does not stall when the labor economy changes, because it was never running on the labor economy. This paper makes three moves. It describes the macro problem, the automation of externally scaffolded purpose. It identifies the micro exception, intrinsic motivation as insulation, and explains it through Self-Determination Theory. And it argues the bridge between them, that the insulation is a cultivable orientation rather than a fixed trait, and that interest-driven education is the mechanism by which it could be moved from the margin to the center. The aim of the third move is captured in a single question: how do we make the micro the new macro.

One boundary is set here and held throughout. This paper concerns the meaning dimension of the post-scarcity transition, not the material dimension. It does not claim that cultivating intrinsic motivation feeds anyone, houses anyone, or resolves the distribution of abundance. Those are separate problems, and Section V states the limitation plainly rather than letting it hide.

II. THE AUTOMATION OF PURPOSE

The income shock from automation has an obvious shape and, in principle, an obvious class of remedies. If machines capture the output that wages once paid for, income can be detached from labor and supplied another way, through transfers, dividends, or some redistribution of the gains. Whether any such remedy is politically achievable is a separate matter, taken up in Section V. The point here is structural: the income problem is the kind of problem a policy instrument can in principle address, because money is fungible and a check is a check regardless of why it is owed.

The purpose shock has no such instrument. For most people, a sense of mattering is not generated internally on demand. It is supplied by external structure, and the supply chain is an institutional one that runs the length of a life. School trains the response first. A child learns to orient toward tasks that others assign, on a schedule others set, evaluated by rewards others administer. The bell, the grade, the assignment, the test all teach the same underlying lesson, which is that the worth of an activity is conferred from outside and that one's job is to respond to that conferral. Work then extends the same architecture without interruption. The deadline replaces the bell, the performance review replaces the grade, the paycheck replaces the gold star, and the role supplies the answer to the question of why one matters. The individual is never required, across decades, to manufacture purpose from within, because the institutions reliably manufacture it from without.

This intuition has a name and an evidence base. Marie Jahoda's latent deprivation model holds that employment supplies, beyond the manifest function of income, five latent functions: time structure, social contact, collective purpose, status, and activity (Jahoda, 1981). A meta-analysis of the model found that each latent function independently predicts mental health, and that together with the manifest function they explain a meaningful share of the difference in wellbeing between employed and unemployed people (Paul et al., 2023). The broader finding that unemployment impairs mental health is among the most robust in the field (Paul and Moser, 2009). What the present argument adds is that advanced automation threatens the latent functions for a far larger population than ordinary unemployment ever reached, and that the manifest function, the part a transfer can replace, was never the part carrying the meaning.

This displacement is not a distant hypothetical. Projections of how much cognitive work is exposed to comput-

erisation have run high for more than a decade (Frey and Osborne, 2017), and early labor-market signals now show advanced automation reshaping the lower rungs of the cognitive economy, with the sharpest effects falling on younger, entry-level workers in the occupations most exposed to the technology (Brynjolfsson, Chandar, and Chen, 2025). The exact magnitude and timing are contested, and the authors themselves have revisited both as more data has arrived. The direction is the relevant thing, and the direction is unkind in a specific way: the roles most exposed to automation are frequently the most externally structured ones, the jobs whose entire purpose architecture is supplied from outside the worker. The people whose sense of mattering is most dependent on external scaffolding are, by and large, the same people whose scaffolding is first to be removed.

The two shocks dissociate, and the dissociation is the heart of the matter. A society could solve the income shock completely, deliver every displaced worker a sufficient and dignified transfer, and leave the purpose shock entirely untouched. A person can be made financially whole and remain undone, because what was lost was never only the wage. It was the structure that told them, every day, that they were needed, and the role that answered the question of who they were when someone asked. No transfer reaches that. The clearest demonstration is the retiree: people who have left the labor force with their income secured remain nearly as deprived of the latent functions as the unemployed, direct evidence that replacing the wage does not replace what the wage was attached to (Paul et al., 2023). The gap between a solved income problem and an unsolved purpose problem is the gap this paper is about, and it is a gap that grows wider precisely as the income side is handled well, because a comfortable, well-funded purposelessness is still purposelessness.

III. INTRINSIC MOTIVATION AS INSULATION

Self-Determination Theory offers the vocabulary the purpose problem has been missing. Developed across several decades by Deci and Ryan, the theory distinguishes motivation by its source rather than only its strength (Deci and Ryan, 1985; Ryan and Deci, 2000, 2017). Extrinsic motivation drives behavior toward separable outcomes, a reward, an approval, an obligation discharged, where the activity is a means to something outside itself. Intrinsic motivation drives behavior because the activity itself is absorbing, where the doing is its own end. The theory further grounds psychological wellbeing in the satisfaction of three basic needs: autonomy, the experience of acting from one's own volition; competence, the experience of effectiveness; and relatedness, the experience of connection to others (Ryan and Deci, 2000).

The move this paper draws from the theory is that motivation is not merely a quantity but an orientation, and that two people can be equally driven while drawing their drive from opposite sources. One is propelled by the external reward structure, the other by the activity itself. The distinction is invisible as long as the external structure is intact, because both people show up, both perform, both appear motivated. It becomes visible the moment the external structure is withdrawn. The extrinsically oriented person loses the engine, because the engine was the structure. The intrinsically oriented person does not, because the engine was internal and the structure was incidental.

This reframes the post-scarcity purpose problem in a way that changes what counts as a solution. The crisis is not universal. It is selective, and the selection criterion is motivational orientation. Those whose sense of competence and autonomy was satisfied through self-chosen activity carry that satisfaction across the transition intact, because self-chosen activity does not require an employer to authorize it. Those whose sense of worth was satisfied through external valuation lose the supply when the valuation stops, because their competence and autonomy were always being certified by someone else. The same economic event lands as liberation on one orientation and as collapse on the other.

The closest thing to a population-scale preview of structure removal we have is recent, and it has now been studied through the precise lens this paper uses. For an extended period, large segments of the population had external structure

stripped away with little warning. The commute vanished, the office emptied, external demand slackened, and for many a basic income floor was held up temporarily by emergency transfers, approximating, crudely, the conditions of a structure-removed economy. Research from that period is directly relevant, because it was framed in the language of basic psychological needs. Studying adults during the first weeks of lockdown, Avsec, Zager Kocjan, and Kavčič (2021) found that it was the distress of the lockdown itself, rather than concern about infection, that shaped psychological functioning, and that the effect ran through the satisfaction and frustration of the needs for autonomy, competence, and relatedness. This matters for the present argument in a specific way. The obvious objection to reading the pandemic as a structure-removal experiment is that any distress could be attributed to fear of the disease rather than to the loss of structure. That study separates the two and finds the structural side carried the effect.

What the finding shows is the dissociation Self-Determination Theory predicts. When the external structure was pulled away, the people whose autonomy and competence needs remained satisfied tended to keep their footing, and those whose needs were frustrated did not. This is one study, in one country, measuring a sudden shock rather than a permanent transition, and the pandemic was saturated with confounds no single design could fully control. It does not carry the paper's larger claim by itself. But it is more than illustration. It is direct evidence that when external structure is removed at scale, the people who hold steady are the ones whose needs are met through something other than that structure, and the people who come apart are the ones who were relying on the structure to supply what they could not supply from within.

It is worth naming where the intrinsic orientation is concentrated today, because it bears on the argument that follows. The orientation runs strongest in people whose engagement is gated by interest rather than by obligation, a description that fits many neurodivergent individuals whose attention and motivation are notoriously difficult to recruit toward externally imposed tasks they do not find interesting, and notoriously easy to recruit toward self-chosen ones. The monotropism account of autism describes this profile directly, characterizing the mind as an interest system in which attention flows toward what is absorbing and resists what is not, often producing intense and intrinsically rewarding states of focused engagement (Murray, Lesser, and Lawson, 2005). In a world organized around external obligation, that profile reads as a deficit, a failure to comply with structure. In a world where external obligation is being withdrawn, the same profile reads as an adaptation that arrived early. The trait that a productivity-organized society treats as disordered is, on the meaning dimension, a head start.

IV. MAKING THE MICRO THE MACRO: INTEREST-DRIVEN EDUCATION

The pivotal claim of this paper is that the insulation just described is not a fixed trait that one either possesses or lacks from birth. It is an orientation, and orientations are shaped by the environments in which people develop. If that is right, then the population of people who carry intrinsic motivation across the automation transition is not fixed by nature. It can be enlarged. The difference between describing who survives the purpose crisis and prescribing how to expand the set of survivors is the difference between an observation and a program, and the program is education.

There is evidence that the orientation is developable, and it comes from environments built around self-chosen interest. In a survey of 232 unschooling families, Gray and Riley (2013) found that parents reported gains in their children's self-motivation, attitudes toward learning, and psychological and social wellbeing, alongside greater closeness and freedom for the family as a whole. The follow-up work matters more for the present argument, because it addresses adult outcomes rather than parental impressions. Surveying grown adults who had been unschooled, Riley and Gray (2015) found that more than four in five had gone on to formal higher education, with nearly half completing or pursuing a bachelor's degree, and that these adults described themselves in terms of self-direction and internally organized motivation. The relevant finding here is not that self-directed education produces higher test scores, a claim this paper does not need and does not make. It is narrower and more load-bearing: an environment organized around

self-chosen interest tends to produce adults whose motivation is internally organized. The orientation can be grown deliberately. The same direction appears across the wider Self-Determination Theory literature on education, in which autonomy-supportive teaching reliably predicts more internalized motivation and deeper engagement than controlling instruction does (Ryan and Deci, 2020).

This casts conventional schooling in an uncomfortable light. In motivational terms, the standard model is a machine for manufacturing extrinsic orientation. It trains response to externally set tasks, reward administered from outside in the form of grades, and success defined by others. It is, with considerable efficiency, optimized to produce exactly the orientation that the automation transition will strand. The implication is stark when the two trends are laid side by side. At the precise historical moment when external structure is beginning to be withdrawn from the economy, the dominant educational institution is busy, year after graduating year, training the entire population to depend on external structure. We are, at scale, preparing people for the side of the coming divide that does not survive it.

This is what recasts interest-driven and self-directed education from a fringe pedagogical preference into something closer to infrastructure. The traditional case for it has rested on the claims that children are happier and learn more naturally when they follow their own interests, and the evidence broadly supports those claims. But the argument here is different and, in the context of automation, more urgent. Intrinsic orientation is becoming the load-bearing capacity for a meaningful life after work, and conventional schooling is actively suppressing it in most of the people who will need it most. Making the micro the macro means deliberately cultivating, across the general population, the orientation that currently sits concentrated in a minority, and doing so before the external structure that props up the extrinsic majority is pulled away. The minority adaptation has to become the general preparation, and education is the only institution positioned to perform that conversion at the necessary scale.

V. SCOPE AND LIMITATIONS: WHAT THIS ARGUMENT DOES NOT CLAIM

This paper makes a bounded claim, and the boundary is the difference between two problems that the post-scarcity transition presents at the same time. The first is material. When productive labor no longer commands income, how is the abundance the machines generate actually distributed, and to whom. The second is psychological. When productive labor no longer supplies purpose, where does a sense of mattering come from. These two problems are independent. A solution to one is not a solution to the other, and conflating them is the fastest way to be wrong about both.

The argument advanced here addresses only the second. Cultivating intrinsic motivation through interest-driven education prepares a person to retain a sense of worth when external structure is withdrawn. It does not feed that person, house that person, or give that person any claim on the wealth that automation concentrates. A mind that is meaning-resilient and a body that is materially secure are different achievements, and the first does not produce the second. An individual who is psychologically prepared for post-scarcity and materially abandoned by it is not fine. That person is composed while deprived, which is not a solution to anything.

The material question is real, it is arguably prior, and it is treated seriously in the political-economy literature on technological unemployment and the distribution of automation's gains. This paper does not resolve it and does not pretend to. The claim is narrower and, within its bounds, defensible: of the two problems post-scarcity forces, the psychological one has a known and cultivable answer, and interest-driven education is that answer. Whether the material problem is solved alongside it will determine whether the psychological preparation is a gift or a cruel joke. That determination lies outside this paper, and the paper is stronger for admitting it than it would be for pretending pedagogy settles a question of political economy.

VI. CONCLUSION

The automation debate has been conducted, almost entirely, in the language of jobs and income. This paper has argued that the more durable casualty is purpose, that the purpose crisis is real but not universal, and that its selection criterion is motivational orientation. People whose sense of mattering was scaffolded externally lose it when the scaffolding is withdrawn. People whose motivation was organized around self-chosen interest carry it across the transition, because it was never resting on the economy in the first place. Self-Determination Theory supplies the mechanism, and the developmental evidence from self-directed education supplies the crucial further point: the orientation is not fixed. It can be cultivated. The population that retains meaning after work is therefore not handed down by nature. It is determined by how we develop people, and that is a choice still open.

The choice has a deadline built into it, because orientation forms in development and cannot be installed in an adult during the week the layoff notice arrives. If interest-driven education is the answer to the purpose half of post-scarcity, it has to be built into the people who will live through the transition before the transition reaches them, not improvised afterward. The relevant window is the childhood of the generation that will inherit the automated economy, which means the relevant window is now.

The material question remains open and decisive, and nothing here should be read as a claim that teaching a child self-direction will feed that child in a world that withholds material security. Psychological preparation inside material deprivation is composure inside deprivation, which is no solution at all. But on the half this paper does claim, the answer already exists, it is empirically grounded, and it is teachable. The only real question is whether it is taught in time, or whether the dominant institution keeps optimizing, through every graduating class, for precisely the orientation the future will have the least use for.

ACKNOWLEDGMENTS

Correspondence concerning this article should be addressed to Travis Gilly, Real Safety AI Foundation, Illinois, United States. Email: t.gilly@ai-literacy-labs.org.

REFERENCES

- Avsec, A., Zager Kocjan, G., & Kavčič, T. (2021). COVID-19 lockdown distress, but not the infection concerns, shape psychological functioning during the pandemic: The mediating role of basic psychological needs. *Scandinavian Journal of Psychology*, 62(5), 717–724.
- Brynjolfsson, E., Chandar, B., & Chen, R. (2025). *Canaries in the coal mine? Six facts about the recent employment effects of artificial intelligence*. Stanford Digital Economy Lab.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum Press.
- Frey, C. B., & Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting and Social Change*, 114, 254–280.
- Gray, P., & Riley, G. (2013). The challenges and benefits of unschooling, according to 232 families who have chosen that route. *Journal of Unschooling and Alternative Learning*, 7(14), 1–27.
- Jahoda, M. (1981). Work, employment, and unemployment: Values, theories, and approaches in social research. *American Psychologist*, 36(2), 184–191.
- Murray, D., Lesser, M., & Lawson, W. (2005). Attention, monotropism and the diagnostic criteria for autism. *Autism*, 9(2), 139–156.
- Paul, K. I., & Moser, K. (2009). Unemployment impairs mental health: Meta-analyses. *Journal of Vocational Behavior*, 74(3), 264–282.
- Paul, K. I., Scholl, H., Moser, K., Zechmann, A., & Batinic, B. (2023). Employment status, psychological needs, and mental health: Meta-analytic findings concerning the latent deprivation model. *Frontiers in Psychology*, 14, 1017358.
- Riley, G., & Gray, P. (2015). Grown unschoolers' experiences with higher education and employment: Report II on a survey of 75 unschooled adults. *Other Education*, 4(2), 33–53.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Press.
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 101860.